Public Open House
Manitoba-Minnesota Transmission Project

Welcome

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Purpose of the Open House

- Provide information about the project.
- Gather feedback on the preferred route.
- Gather information to enhance the environmental assessment work being undertaken.
- Gather local knowledge to assist in determining the final placement of the transmission line.
- Discuss possible mitigation measures to minimize potential impacts.
- Answer questions and address concerns.

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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.

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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.

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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.**

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Station Modifications

Dorsey & Riel Converter stations

- Upgrades (equipment) needed to accommodate the 500-kV AC line;
- Most 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.

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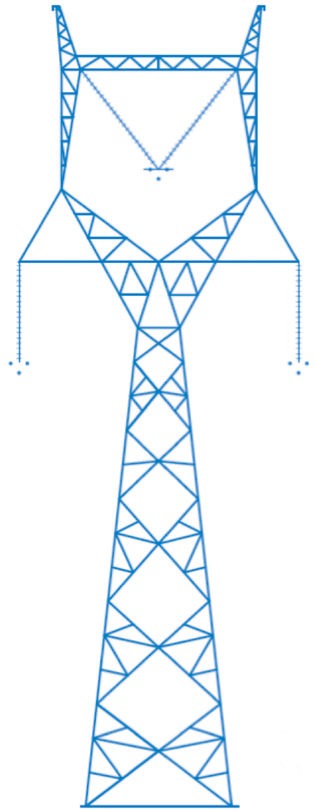
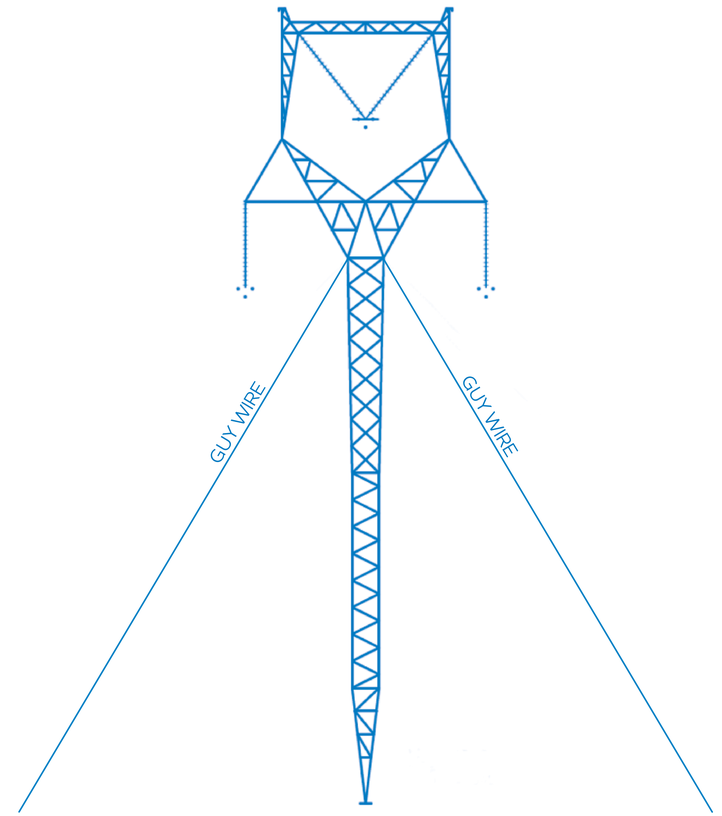
Preliminary Tower Design



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.)

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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.

For more information, visit www.hydro.mb.ca/mmtp or speak with a Manitoba Hydro representative.

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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.

For more information, visit www.hydro.mb.ca/mmtp or speak with a Manitoba Hydro representative.

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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 August 2014

- Present what we heard in 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:

January to April 2015

- Present what we heard in Round 2.
- Present the preferred route.
- Answer questions.
- Identify and document outstanding concerns.
- Discuss potential effects and possible mitigation measures to minimize effects.
- Use input to assist in determining final route placement.

Project Timelines

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

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Next Steps

- Review input from the public engagement and the environmental assessment processes.
- Determine a Final Preferred Route.
- Complete the Environmental Assessment for the Final Preferred Route and develop the environmental impact statement (EIS).
- Submit EIS to regulators in Summer of 2015.
- Continue to answer questions and address concerns.

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Preferred Route Selection Process

Round 1: Three Border crossings and alternative route options
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
Compile feedback from engagement and environmental assessment processes
Develop additional route segments for consideration
+500,000 routing options
Route criteria and evaluation
Final comparison with top 5 routes
Modifications to mitigate outstanding concerns
Round 3: Preferred Route

Routing Process is based on the EPRI-GTC methodology. For more information please visit the project website at www.hydro.mb.ca/mmtp or speak with a Manitoba Hydro representative.

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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.

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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

- **Visit the project webpage at 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.**

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Thank you for attending and providing your feedback!

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