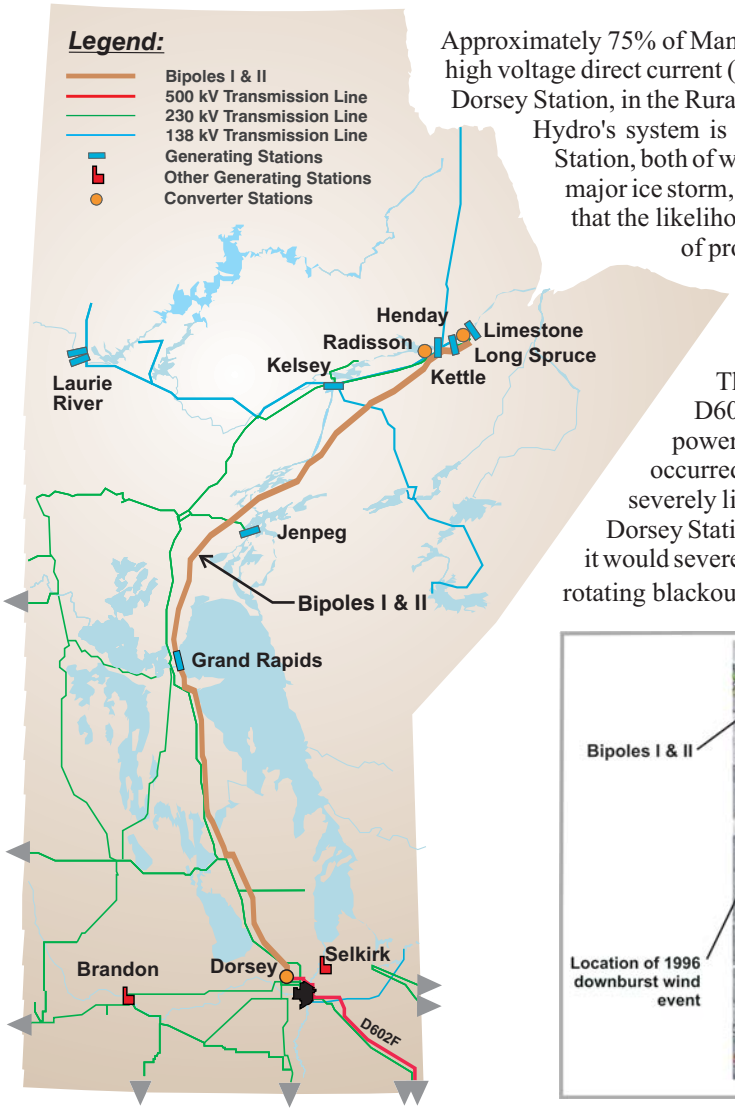
# BIPOLE III

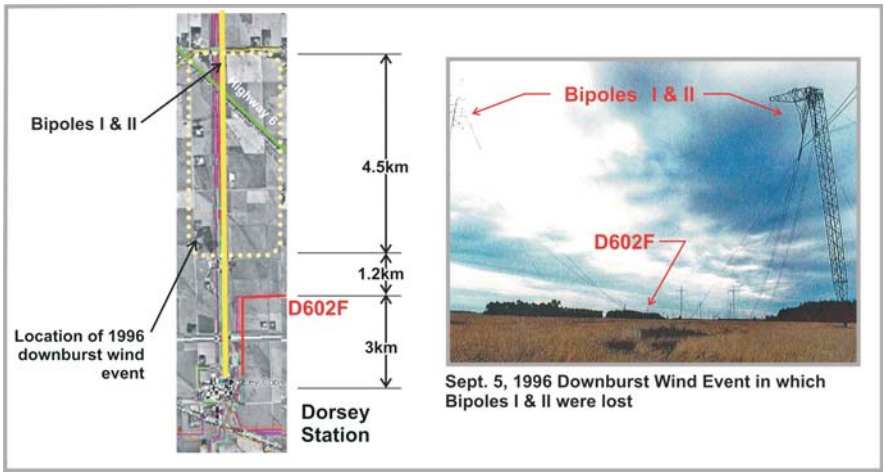
# A Major Reliability Improvement Project

## The Reliability Concern




Approximately 75% of Manitoba's generating capacity is delivered to southern Manitoba via the existing high voltage direct current (HVdc) Interlake corridor which is shared by Bipoles I & II which terminate at Dorsey Station, in the Rural Municipality (RM) of Rosser, northwest of the City of Winnipeg. Manitoba Hydro's system is vulnerable to the risk of outage of either the Interlake corridor or Dorsey Station, both of which could, for example, occur as a result of a severe weather incident such as a major ice storm, an extreme wind event or a tornado. System reliability studies have concluded that the likelihood of such events occurring when combined with the potential consequences of prolonged major outages warrant mitigation measures to reduce dependency on Dorsey Station and the existing HVdc Interlake corridor.

In 1996, the existing Bipoles I & II were concurrently lost as a result of an extreme wind event in the vicinity of Grosse Isle, north of Dorsey Station. The existing 500 kilovolt (kV) international transmission line (known as D602F), which runs from Dorsey Station to Forbes, Minnesota was used to import power to support the Winnipeg area transmission system. Had the wind event occurred a few kilometres further south, D602F would also have been damaged severely limiting the ability of the system to import power for Manitobans. Similarly, if Dorsey Station incurred a similar major outage (i.e., involving the HVdc lines and D602F), it would severely limit sources of major alternative energy supply which could result in rotating blackouts and supply restrictions.




The Bipole III Project will improve system reliability in a number of ways. The project will establish a second converter station (Riel Station) in southern Manitoba which will provide a second major point of power injection into the system. As well, Bipole III will reduce risks from a range of possible system outages such as:

- The HVdc facilities at Dorsey Station
- The adjacent 500 kV station at Dorsey Station
- The Bipoles I & II Interlake corridor
- The corridor immediately north of Dorsey Station containing D602F, Bipoles I & II and a 230 kV line to Brandon
- The transmission corridors around Winnipeg

In addition, Bipole III will improve the existing Bipoles I & II line losses and provide additional transmission line capacity to get new northern hydroelectric generation to southern markets.



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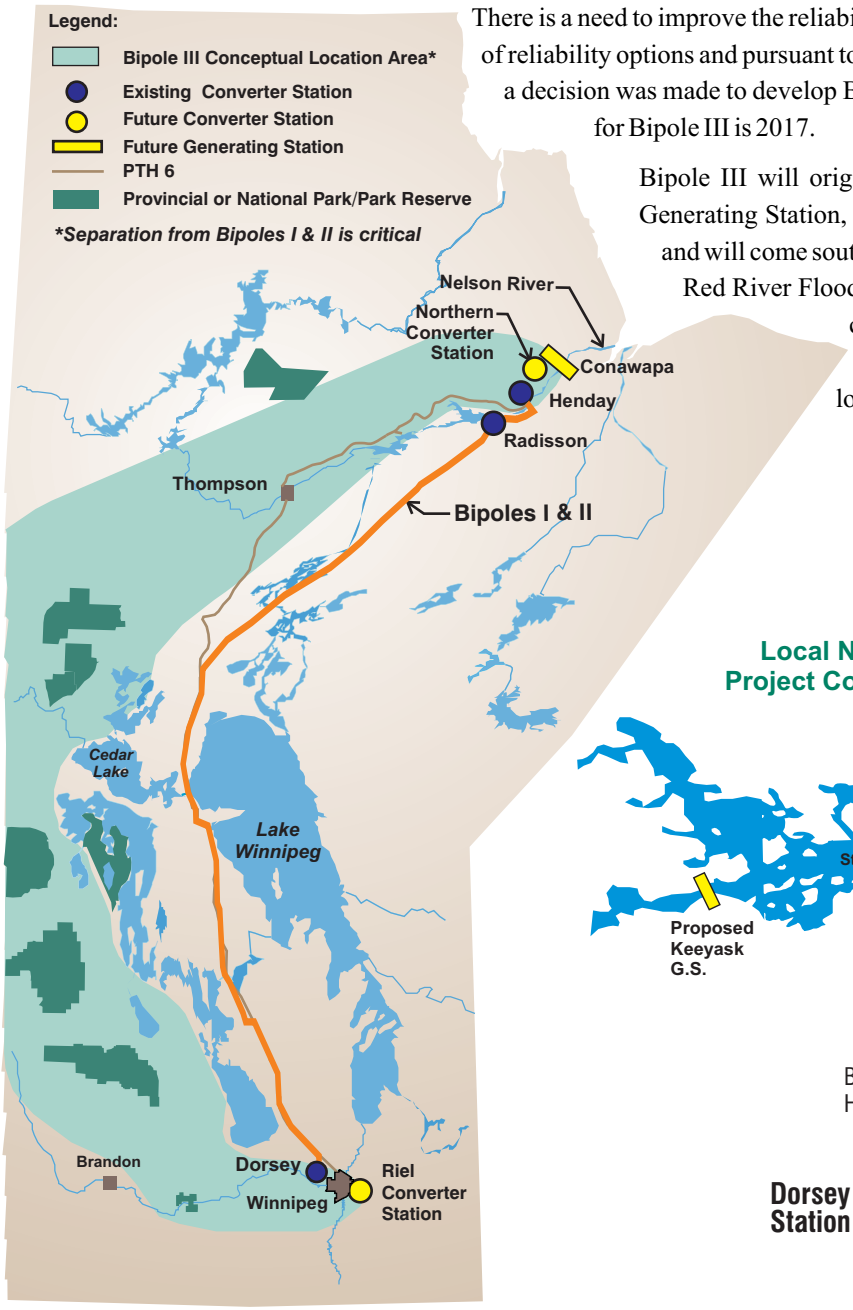
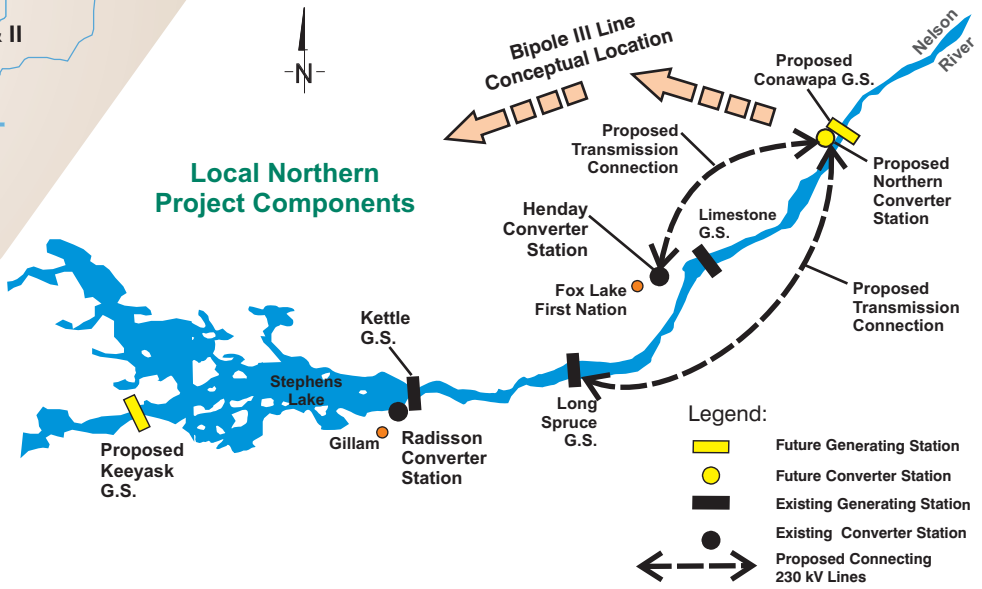
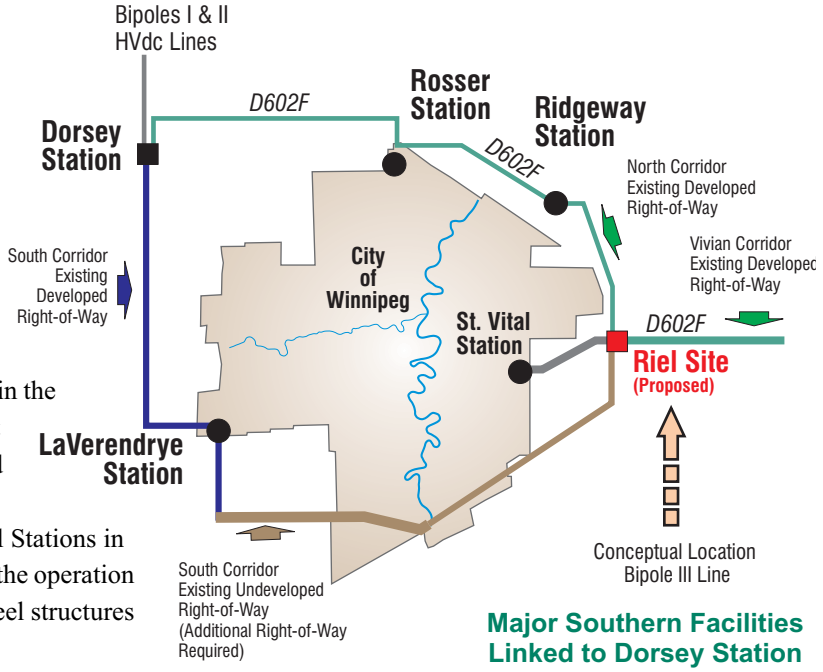
# Bipole III Project Concept




There is a need to improve the reliability of the existing transmission system. Following an assessment of reliability options and pursuant to a review by the Manitoba Hydro Electric Board and the Province, a decision was made to develop Bipole III in the westerly area of the Province. The in-service date for Bipole III is 2017.

Bipole III will originate at a new northern converter station site at the Conawapa Generating Station, will travel south and west of Lakes Winnipegosis and Manitoba, and will come south of Winnipeg and terminate at the Riel site immediately east of the Red River Floodway in the RM of Springfield. The locations of the new northern converter station and Riel Station are identified on the accompanying map which also illustrates the general conceptual location area for eventual siting of alternative routes for Bipole III.




Major Southern Facilities Linked to Dorsey Station

Following the introductory round of community/public consultation, the conceptual location area will be refined in order to define a specific project study area for the formal Site Selection and Environmental Assessment (SSEA) process which is to be initiated in the fall. Lines will be required from the new northern converter station at Conawapa to connect to the existing Henday Converter Station and Long Spruce Generating Station, in northern Manitoba.

A 500 kV transmission line will be required to link Dorsey and Riel Stations in southern Manitoba. A ground electrode facility will be required for the operation of each of the new converter stations. Bipole III will be strung on steel structures on a 60 meter wide right-of-way.

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# The Site Selection and Environmental Assessment (SSEA) Process

Identification of a proposed route for Bipole III will be based on a Site Selection and Environmental Assessment (SSEA) process. The SSEA process is a phased approach which will involve the systematic refinement of a project study area to identify and assess the best balanced choice for a proposed route. The SSEA iterative process includes the following:

- Defining a project study area based on factors including community and public input, environmental and technical (engineering) considerations
- Identifying regional and site-specific constraints and opportunities for transmission line routing including potentially sensitive socio-economic, cultural and biophysical features
- Identifying and evaluating alternative routes based on community/public input, local and Traditional Knowledge, socio-economic, biophysical, technical and cost considerations
- Selecting a preferred route which, where feasible, minimizes potential negative effects and enhances opportunities
- Developing impact management measures, where required, to address potential negative effects

Ongoing community/public input is a critical component of the SSEA process. A description of the planned community/public consultation program for Bipole III is provided in the next section of this newsletter.

The SSEA process will be documented in an Environmental Impact Statement (EIS) that will accompany Manitoba Hydro's application for environmental licensing. The SSEA process for Bipole III is scheduled to take four years to complete and the project EIS will be submitted to government regulatory authorities in the fall of 2011.



## Community and Public Consultation

Consultation with communities, resource users, stakeholders and the public is a critical part of the planning process for identifying and evaluating alternative routes, and selecting a preferred route for Bipole III. The purpose is to facilitate community and public understanding about the project and the SSEA process, to enable information to be shared as it becomes available, and to be responsive to identified concerns. Information obtained will be incorporated into project planning to assist in identifying a proposed route and in assessing the potential impacts and mitigative measures associated with this choice.

Four rounds of community/public consultation are planned for Bipole III at key planning junctures of the SSEA process. Each round will include meetings with elected officials, community leadership, organizations and other potentially affected stakeholders, as well as Public Open Houses in the project region. In Aboriginal communities, formal consultation will begin following initial dialogue during the introductory round and the development of a consultation plan with potentially affected communities. Following the introductory round, a second round which will commence the formal SSEA for Bipole III is anticipated to begin in the fall of 2008. To ensure that activities are conducted in an efficient and timely manner, two teams of Manitoba Hydro representatives will concurrently carry out the ongoing community and public consultation process.

## Regulatory Approvals

Development of Bipole III will require a Class 3 licence under ***The Environment Act*** (Manitoba). The environmental impact assessment for the project, including a program of community/public consultation, and identification of potential impacts and mitigative measures, will be documented in an Environmental Impact Statement (EIS). The project EIS, together with an Environment Act Proposal Form (EAPF) will be submitted to Manitoba Conservation as application for the Environment Act Licence. It is anticipated that Manitoba Conservation will coordinate with the Canadian Environmental Assessment Agency to ensure a harmonized approach to application of the Federal ***Canadian Environmental Assessment Act.*** Receipt of the Environment Act Licence is required in late 2012 to meet a project in-service date of 2017.

## Comments

Manitoba Hydro would welcome your comments related to the Bipole III Project. Should you require more information or desire to further discuss this project , please contact:

**C. B. (Carl) Johnson, Coordinator**
**Northern Community Consultation**
**Licensing & Environmental Assessment Dept.**
**Manitoba Hydro**
**P.O. Box 815**
**Winnipeg, MB R3C 2P4**
**Ph: (204) 474-3454 Fax: (204) 474-4974**
**Email: cbjohnson@hydro.mb.ca**

**Or**

**J. Trent Hreno, Senior Environmental Assessment Officer**
**Southern Community Consultation**
**Licensing & Environmental Assessment Dept.**
**Manitoba Hydro**
**P.O. Box 815**
**Winnipeg, MB R3C 2P4**
**Ph: (204) 474-3183 Fax: (204) 474-4974**
**Email: threno@hydro.mb.ca**

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