

## 1.0 Executive Summary

Part I of this document constitutes the 2007 Minnesota Biennial Transmission Projects Report.

The 2007 Biennial Report has been prepared pursuant to Minnesota Statutes § 216B.2425, which requires utilities that own or operate electric transmission facilities in the state to report by November 1 of each odd numbered year on the status of the transmission system, including present and foreseeable inadequacies and proposed solutions.

This is the fourth round of reports. Reports were filed in 2001, 2003, and 2005. All biennial reports are available on a webpage maintained by the utilities specifically for the purpose of providing information about transmission planning. That webpage is:

[www.minnelectrans.com](http://www.minnelectrans.com)

This Report is a joint effort of the Minnesota Transmission Owners – those utilities that own or operate high voltage transmission lines in the state of Minnesota. These utilities include the following:

American Transmission Company, LLC  
Dairyland Power Cooperative  
East River Electric Power Cooperative  
Great River Energy  
Hutchinson Utilities Commission  
Interstate Power and Light Company  
d/b/a Alliant Energy  
L&O Power Cooperative  
Marshall Municipal Utilities  
Minnesota Power

Minnkota Power  
Missouri River Energy Services  
Northern States Power Company,  
d/b/a Xcel Energy  
Otter Tail Power Company  
Rochester Public Utilities  
Southern Minnesota Municipal  
Power Agency  
Willmar Municipal Utilities

A contact person for each utility is provided at the end of this document and a short description of each utility can be found in Section 8.

A major purpose of the Report is to list all present and reasonably foreseeable transmission inadequacies in the transmission system and identify possible alternatives for addressing each situation. An “inadequacy” is essentially a situation where the present transmission infrastructure is unable or likely to be unable in the foreseeable future to perform in a consistently reliable fashion and in compliance with regulatory standards.

The State of Minnesota is divided into six transmission planning zones: the Northwest Zone, the Northeast Zone, the West Central Zone, the Twin Cities Zone, the Southwest Zone, and the Southeast Zone. Section 6 describes each of the zones generally. Section 7 of the report contains a discussion of the inadequacies identified in each zone. The Report lists more than 70 separate inadequacies across the state.

Each inadequacy is assigned a Tracking Number. The Tracking Number reflects the year the inadequacy was identified and the zone in which it is located. A map is included for most inadequacies and a map of the entire zone locating each inadequacy is also provided. A brief description of the inadequacy – the reason or reasons why the present system is inadequate or may be inadequate – is given and the potential alternatives are described. In some cases, the preferred alternative has already been determined. For each Tracking Number, a brief overview of the analysis that has been conducted is provided, along with a possible schedule for addressing the problem.

Certain projects have been completed since the 2005 Report was filed two years ago. In addition, several projects are under review by the Public Utilities Commission and are awaiting authorization before construction can begin. More applications will be submitted in 2008. The statute provides a separate certification process for approval of the need for new transmission as part of the biennial transmission planning process, and two projects were certified during the 2005 proceeding under that procedure, but as part of the 2007 reporting process, no utility has elected to seek certification of any particular transmission line.

Once a project has been completed and an inadequacy addressed, the matter is closed and that particular Tracking Number is no longer reported. The practice is to permanently close a matter only after the selected alternative has been constructed and placed into service. A project that has been approved but has not been placed into operation yet is still listed as an open matter. A separate table is included in Section 7 identifying the closed matters. If the project required approval by the Public Utilities Commission, the PUC Docket Number is reported so interested persons can easily find more information about the project on the PUC e-filing webpage.

Section 2 provides an overview of the biennial reporting requirements. Section 3 of the Report provides a brief description of a number of studies that have been completed over the past two years. Some studies are specific to Minnesota but others are broad studies by regional and national organizations looking at wide-spread issues affecting the transmission grid.

Section 4 summarizes the annual public meetings that the Minnesota Transmission Owners held around the state in each zone in fall 2006 and fall 2007.

Section 5 is devoted to a discussion of the CapX 2020 projects. CapX 2020, an effort by eleven utilities to address transmission needs to meet a growing demand for energy, has proposed to construct three long high voltage transmission lines (345 kV) from the Twin Cities area to the Dakotas and Wisconsin and a fourth 230 kV line between Bemidji and Grand Rapids. These matters are pending before the Public Utilities Commission.

An addition to the biennial report this year is Section 8. While the Biennial Report is a joint submission by all the utilities, this part of the Report contains information for individual utilities. Each utility has provided a brief background about itself. In addition, this is the place where the utilities have responded to certain specific requests for information. The Department of Commerce has requested that the utilities report on the

miles of transmission lines in Minnesota that are owned by each utility and the amount of money that has been spent on maintenance over the past few years and budgeted for over the next three years. That information is reported here.

The Public Utilities Commission has also requested the utilities to report on their progress toward compliance with state Renewable Energy Standards and the transmission needs that might be required to assure compliance with upcoming RES milestones. Not all utilities that own transmission lines are subject to the state Renewable Energy Standards, but for those that are, each one has provided a brief analysis of its status and its anticipated needs. Because much of each utility's renewable energy will come from the same wind-rich areas of Minnesota and the Dakotas, and because the transmission grid is one large interconnected web, many of the transmission projects that will be required to meet RES milestones are not unique to individual utilities but are larger lines that increase outlet capacity for renewable energy generally, regardless of the ultimate consumer.

It should be mentioned that more information about Minnesota Renewable Energy Standards and the utilities' efforts to attain upcoming milestones is included in Part II of this Report. Part II is the Renewable Energy Standards Report that the Legislature in February 2007 directed certain utilities to file by November 1, 2007. Section 8 of Part I and the entire Part II both should be consulted to get a complete picture of ongoing efforts to achieve renewable energy goals. Importantly, much is happening on the renewable energy front, and 2008 and future years will see substantial activity in both planning and implementation of specific projects to expand the transmission system in Minnesota and the region.

Upon receipt of this Report, the Public Utilities Commission will solicit comments from the Department of Commerce, interested parties, and the general public about the Report. Any person interested in commenting on the Report or following the comments of others, should check the efilings docket for this matter or in some other manner contact the Public Utilities Commission. The Docket Number is M-07-1028.