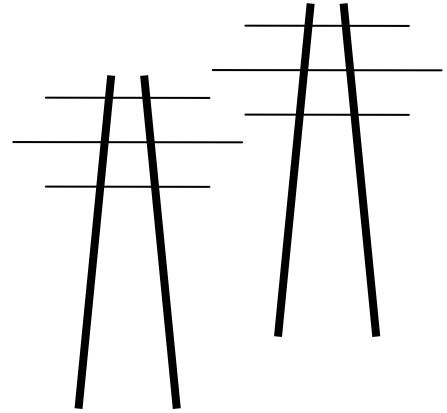


# Legalelectric, Inc.

**Carol Overland** Attorney at Law, MN #254617  
Energy Consultant—Transmission, Power Plants, Nuclear Waste  
overland@legalelectric.org

P. O. Box 176  
Red Wing, Minnesota 55066  
612.227.8638

P.O. Box 69  
Port Penn, Delaware 19731  
302.834.3466



December 19, 2014

Ann O'Reilly  
Administrative Law Judge  
Office of Administrative Hearings  
P.O. Box 64620  
600 North Robert St.  
St. Paul, Mn 55164-0620

RE: RRANT Initial Brief  
Not-So-Great Northern Transmission Line  
OAH Docket No.: 65-2500-31196  
PUC Docket E-015/CN-12-1163

Dear Judge O'Reilly:

Attached and eFiled please find the Initial Brief of Residents and Ratepayers Against Not-so-Great-Northern Transmission. A revised Issue Matrix will follow under separate cover.

Please let me know if you have any questions or require anything further.

Very truly yours,

A handwritten signature in cursive script that reads "Carol A. Overland".

Carol A. Overland  
Attorney at Law

cc: All parties via eFiling and eService  
RRANT

**STATE OF MINNESOTA  
OFFICE OF ADMINISTRATIVE HEARINGS  
FOR THE PUBLIC UTILITIES COMMISSION**

In the Matter of the Request of Minnesota  
Power for a Certificate of Need for the  
Great Northern Transmission Line Project

OAH Docket No.: 65-2500-31196  
PUC Docket No.: E15/CN-12-1163

**INITIAL BRIEF**

**RESIDENTS AND RATEPAYERS AGAINST  
NOT-SO-GREAT-NORTHERN TRANSMISSION**

The Residents and Ratepayers Against Not-so-Great-Northern Transmission , hereinafter RRANT<sup>1</sup>, is an association of potentially directly affected landowners, farmers and residents and directly affected ratepayers within the immediate vicinity of the proposed Great Northern Transmission Line and in Minnesota in the service territory of Minnesota Power that oppose Minnesota Power's application for a Certificate of Need. RRANT opposes the project because it is for economic reasons which are not recognized in the Certificate of Need statutory criteria, because it is grossly oversized when compared to the PPA's megawatt "need" claimed by the Applicant, and because it is a segmented part of a much longer transmission line, to Arrowhead substation near Duluth, and across Wisconsin into Michigan towards Detroit. Further, the cost apportionment is based on a 383 MW PPA balanced against a claimed 750 or 883 MW capacity, when in fact the potential capacity is much higher – if/when additional capacity is used, that

---

<sup>1</sup> Used in the "to talk in a noisy, excited, or declamatory manner" sense! "Rant." *Merriam-Webster.com*. Merriam-Webster, n.d. Web. 10 Jan. 2014. <http://www.merriam-webster.com/dictionary/rant> .

would inequitably skew the ratio, Minnesota Power would use a lower percentage of that greater capacity, and Minnesota percentage would be lowered and the ratepayers allocation would then be too high.

Step by step, Minnesota Power has lead the Commission to the point of a Certificate of Need decision through approval of its Integrated Resource Plan finding a “need” for 250MW and 133 MW, through approval of the Power Purchase Agreements with Manitoba Hydro which include a contractual agreement to build and operate a transmission line, and thereby gaining a Certificate of Need as a fait accompli due to these prior decisions. However, a transmission line was not approved in the Integrated Resource Plan, and a transmission line was not approved as a part of the PPA review. Applicant’s claim of need for this project is not a legally recognized “need” and under the Certificate of Need criteria, need has not been defined or demonstrated. Minnesota Power’s application for a Certificate of Need should be denied.

## **I. INTRODUCTION AND CRITERIA**

Minnesota’s Certificate of Need criteria is found in both statute and rule. The burden of proof and production is on the Applicant. Broad as these criterions are, a contractual requirement of construction of transmission to increase transfer capacity does not fit within the criteria:

### **Subd. 3. Showing required for construction.**

**No proposed large energy facility shall be certified for construction unless the applicant can show that demand for electricity cannot be met more cost effectively through energy conservation and load-management measures and unless the applicant has otherwise justified its need.** In assessing need, the commission shall evaluate:

(1) the accuracy of the long-range energy demand forecasts on which the necessity for the facility is based;

- (2) the effect of existing or possible energy conservation programs under sections [216C.05](#) to [216C.30](#) and this section or other federal or state legislation on long-term energy demand;
- (3) the relationship of the proposed facility to overall state energy needs, as described in the most recent state energy policy and conservation report prepared under section [216C.18](#), or, in the case of a high-voltage transmission line, the relationship of the proposed line to regional energy needs, as presented in the transmission plan submitted under section [216B.2425](#);
- (4) promotional activities that may have given rise to the demand for this facility;
- (5) benefits of this facility, including its uses to protect or enhance environmental quality, and to increase reliability of energy supply in Minnesota and the region;
- (6) possible alternatives for satisfying the energy demand or transmission needs including but not limited to potential for increased efficiency and upgrading of existing energy generation and transmission facilities, load-management programs, and distributed generation;
- (7) the policies, rules, and regulations of other state and federal agencies and local governments;
- (8) any feasible combination of energy conservation improvements, required under section [216B.241](#), that can (i) replace part or all of the energy to be provided by the proposed facility, and (ii) compete with it economically;
- (9) with respect to a high-voltage transmission line, the benefits of enhanced regional reliability, access, or deliverability to the extent these factors improve the robustness of the transmission system or lower costs for electric consumers in Minnesota;
- (10) whether the applicant or applicants are in compliance with applicable provisions of sections [216B.1691](#) and [216B.2425, subdivision 7](#), and have filed or will file by a date certain an application for certificate of need under this section or for certification as a priority electric transmission project under section [216B.2425](#) for any transmission facilities or upgrades identified under section [216B.2425, subdivision 7](#);
- (11) whether the applicant has made the demonstrations required under subdivision 3a;...[generation related criteria deleted].

Minn. Stat. §216B.243, Subd. 3 (**emphasis added**).<sup>2</sup>

---

<sup>2</sup> It should be noted that in its Application, and in the Decision Matrix draft, the Applicant did not include any reference to the Certificate of Need criteria. See Ex. 9, Application, p. xv – xxvi.

A requirement of construction of transmission to increase transfer capacity also does not fit within the criteria for a Certificate of Need found in Minn. R. 7849.0120:

A certificate of need must be granted to the applicant on determining that:

A. the probable result of denial would be an adverse effect upon the future adequacy, reliability, or efficiency of energy supply to the applicant, to the applicant's customers, or to the people of Minnesota and neighboring states, considering:

(1) the accuracy of the applicant's forecast of demand for the type of energy that would be supplied by the proposed facility;

(2) the effects of the applicant's existing or expected conservation programs and state and federal conservation programs;

(3) the effects of promotional practices of the applicant that may have given rise to the increase in the energy demand, particularly promotional practices which have occurred since 1974;

(4) the ability of current facilities and planned facilities not requiring certificates of need to meet the future demand; and

(5) the effect of the proposed facility, or a suitable modification thereof, in making efficient use of resources;

B. a more reasonable and prudent alternative to the proposed facility has not been demonstrated by a preponderance of the evidence on the record, considering:

(1) the appropriateness of the size, the type, and the timing of the proposed facility compared to those of reasonable alternatives;

(2) the cost of the proposed facility and the cost of energy to be supplied by the proposed facility compared to the costs of reasonable alternatives and the cost of energy that would be supplied by reasonable alternatives;

(3) the effects of the proposed facility upon the natural and socioeconomic environments compared to the effects of reasonable alternatives; and

(4) the expected reliability of the proposed facility compared to the expected reliability of reasonable alternatives;

C. by a preponderance of the evidence on the record, the proposed facility, or a suitable modification of the facility, will provide benefits to society in a manner

compatible with protecting the natural and socioeconomic environments, including human health, considering:

- (1) the relationship of the proposed facility, or a suitable modification thereof, to overall state energy needs;
- (2) the effects of the proposed facility, or a suitable modification thereof, upon the natural and socioeconomic environments compared to the effects of not building the facility;
- (3) the effects of the proposed facility, or a suitable modification thereof, in inducing future development; and
- (4) the socially beneficial uses of the output of the proposed facility, or a suitable modification thereof, including its uses to protect or enhance environmental quality; and

D. the record does not demonstrate that the design, construction, or operation of the proposed facility, or a suitable modification of the facility, will fail to comply with relevant policies, rules, and regulations of other state and federal agencies and local governments.

Minn. R. 7849.0120.

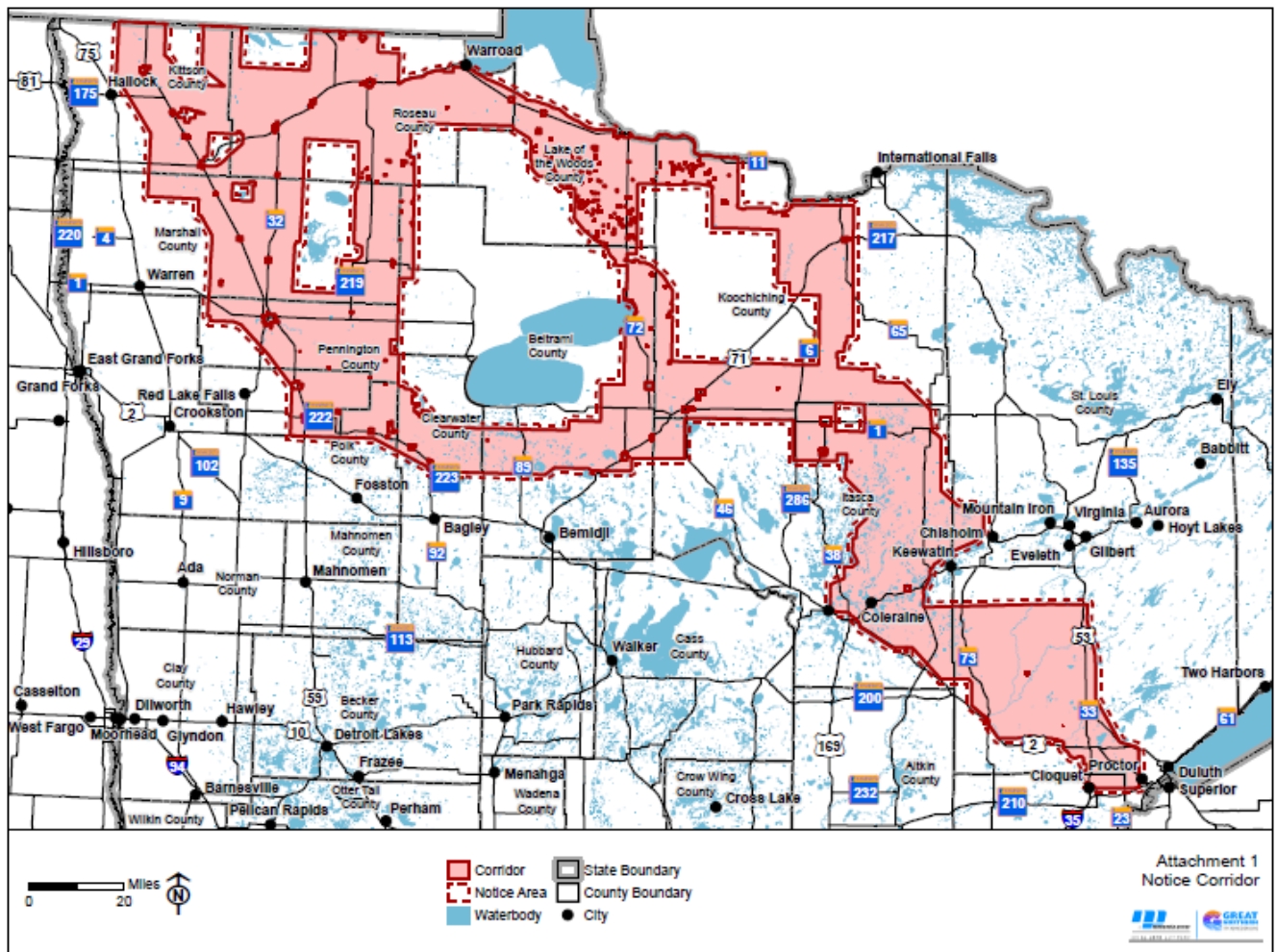
**II. THE GREAT NORTHERN TRANSMISSION PROJECT IS A SEGMENT OF A MUCH LARGER PROJECT.**

Minnesota Power's Great Northern Transmission Project, as applied for, is an Extra High Voltage 500 kV triple-bundled transmission line stretching into the U.S. from the Dorsey substation in Canada to various points in Minnesota, Wisconsin, and on to Michigan. It was originally proposed in the Notice Plan for this docket as extending to the Arrowhead substation:

At the time Minnesota Power filed its proposed notice plan and its exemption, the Company anticipated filing a Certificate of Need application for two transmission lines and associated facilities – the Project and a separate 345 kilovolt (“kV”) transmission project between the terminus substation of the Project and the Arrowhead Substation near Hermantown, Minnesota. At this time there are not sufficient transmission service requests to support this second 345 kV phase. Thus, Minnesota Power has determined that it will not pursue construction of the 345 kV project at this time. Should that separate project move forward in the future, a new Certificate of Need application will be filed.

Ex. 9, Application, p. 2.<sup>3</sup>

In each of the studies relied upon by the Applicants and cited in their Application and Testimony, the line extends to Duluth, and often further. For example, this is the Notice Plan map<sup>4</sup> extending to the Arrowhead substation:



Document Path: \\mspe-gis-01\GIS\Proj\_srg\MinPower\18\_2015\map\_docs\19\NoticePlan\_Overview\_8x11L.mxd

<sup>3</sup> Ex. 9, Application, eFiled: 201310-92766-02

<sup>4</sup> Ex. 63, map was also included in all three Notice Plans eFiled:

<a href="#">20143-97328-01</a>	PUBLIC	12-1163	CN	MINNESOTA POWER	LETTER--NOTICE PLAN MAILED TO STAKEHOLDERS	03/14/2014
<a href="#">20143-97332-01</a>	PUBLIC	12-1163	CN	MINNESOTA POWER	LETTER--345 KV PROJECT NOTICE MAILED TO STAKEHOLDERS	03/14/2014
<a href="#">20143-97330-01</a>	PUBLIC	12-1163	CN	MINNESOTA POWER	LETTER--NOTICE PLAN MAILED TO LOCAL GOVERNMENT REPRESENTATIVES	03/14/2014

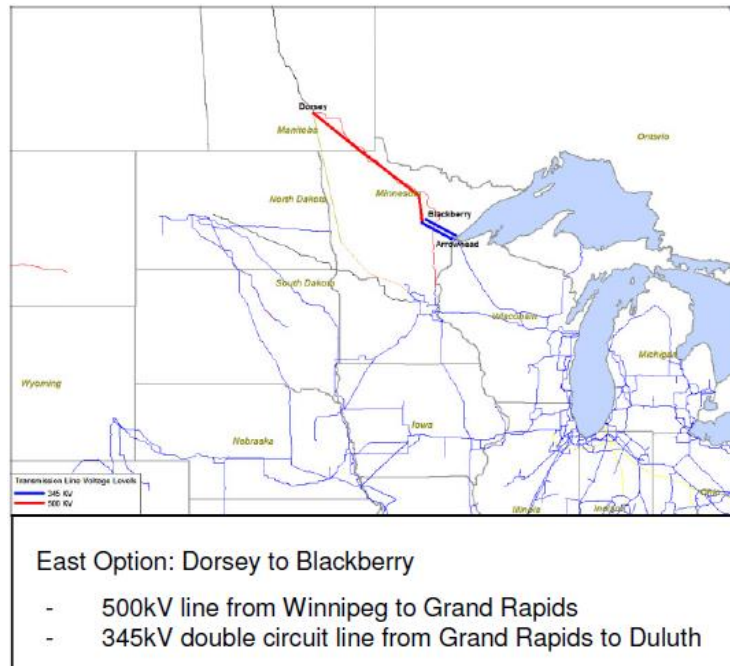
In the MISO Northern Area Study, the project also extends much further to the east:



**Figure E-2: Northern Area Study Transmission Options**

Ex. 23, Application, Appendix M, MISO Northern Area Study, p. 5.<sup>5</sup>

The Manitoba Hydro Synergy Study assessed two options, the “East Option” from “Winnipeg to Grand Rapids” and “Grand Rapids to Duluth,” from the Dorsey substation to Blackberry to Arrowhead substations. Ex. 19, Application, App. I, and Ex. 9, Application, p. 67:



<sup>5</sup> Exhibit 23, Application, Appendix M eFiled: [201310-92773-06](https://www.ksrepublic.com/2013/10/27/201310-92773-06)



Similarly, the MH – US TSR Sensitivity Analysis Draft Report (Eastern Plan) studied the same Dorsey to Blackberry to Arrowhead transmission addition:

- **250MW transfer, Riel-Shannon 230kV**  
No valid constraints were found for 250 MW transfer.
- **750MW transfer, Dorsey-Blackberry 500kV**  
The 750MW transfer option showed violations on two MP facilities. These would both be mitigated by increasing the thermal line ratings. Blackberry 500/230 kV Transformer is not a concern as actual size can still be changed to fit the need. It is estimated to cost 2.16 million to upgrade Blackberry-Nashwauk 115kV.
- **1100MW transfer, Dorsey-Blackberry 500kV, 345kV Blackberry-Arrowhead 345kV double circuit**  
No valid constraints were found for 1100 MW transfer.
- **No Harm Test, Dorsey-Blackberry 500kV, 345kV Blackberry-Arrowhead 345kV double circuit**  
No valid constraints were found for 1100 MW transfer.

Ex. 30, Application, Appendix Q, p. 7.<sup>6</sup> What’s particularly interesting about this study is that the Dorsey – Arrowhead “1100 MW transfer” and the “No Harm Test” both showed that “no valid constraints were found for 1100 MW transfer, but there were problems with the 750 MW transfer from only Dorsey-Blackberry (not through to Arrowhead) that required mitigation on two Minnesota Power facilities, including increase of the line ratings, a change in the Blackberry transformer, and an upgrade of the Blackberry-Nashwauk line.

The Manitoba – United States Transmission Development Wind Injection Study:

Maximizing Wind and Water showed the same comparison of a West Option and East Option:

The two main Manitoba to US transmission configurations evaluated include a Fargo (western) configuration with a Winnipeg, MB (Dorsey substation) to Fargo, ND (Bison substation) 500 kV then connecting to the CapX (Fargo to Twin Cities) transmission and an Iron Range (eastern) configuration with a Winnipeg, MB (Dorsey substation) to Iron Range, MN (Blackberry substation) 500 kV line then continuing with a double circuit 345 kV to Duluth, MN (Arrowhead substation).

---

<sup>6</sup> Ex. 30, Application, Appendix Q eFiled: [201310-92784-02](#) (Application List of Appendices and Master Exhibit List have these reversed, P is Q and Q is P).

Ex. 25, Application, Appendix O, The Manitoba – United States Transmission Development Wind Injection Study: Maximizing Wind and Water, p. 2.<sup>7</sup>

This study also reviewed Dorsey to Blackberry to Arrowhead:

***Eastern Plan Phase 2 (E2)***

In addition to the basic Eastern Plan facilities, a potential second phase of the Eastern Plan consists of the development of a ~60 mile double circuit 345 kV line from the Iron Range Substation to the Arrowhead Substation. To connect to the new 345 kV lines, the Iron Range Substation would be expanded to include two 1200 MVA, 500/345 kV transformers.

***Eastern Plan Phase 2 with Blackberry – Arrowhead 345 kV Single Circuit Only (E2s)***

In addition to the basic Eastern Plan facilities, a potential alternative second phase of the Eastern Plan consists of the development of a ~60 mile single circuit 345 kV line from the Iron Range Substation to the Arrowhead Substation. To connect to the new 345 kV line, the Iron Range Substation would be expanded to include a single 1200 MVA, 500/345 kV transformer.

The New Tie Line Loop Flow Impact Study Scope also proposed an Eastern Plan second phase extending to the Arrowhead substation in Duluth with the identical descriptions and font:

***Eastern Plan Phase 2 (E2)***

In addition to the basic Eastern Plan facilities, a potential second phase of the Eastern Plan consists of the development of a ~60 mile double circuit 345 kV line from the Iron Range Substation to the Arrowhead Substation. To connect to the new 345 kV lines, the Iron Range Substation would be expanded to include two 1200 MVA, 500/345 kV transformers.

***Eastern Plan Phase 2 with Blackberry – Arrowhead 345 kV Single Circuit Only (E2s)***

In addition to the basic Eastern Plan facilities, a potential alternative second phase of the Eastern Plan consists of the development of a ~60 mile single circuit 345 kV line from the Iron Range Substation to the Arrowhead Substation. To connect to the new 345 kV line, the Iron Range Substation would be expanded to include a single 1200 MVA, 500/345 kV transformer.

Ex. 29, Application, Appendix P, The New Tie Line Loop Flow Impact Study p. 2.<sup>8</sup>

In order to get a 1100 MW increase in capacity, the Dorsey – Iron Range 500 kV Project Preliminary Stability Analysis Draft Report studied similar additions, and an extension to the Arrowhead substation was necessary to achieve the 1100 MW increase:

---

<sup>7</sup> Exhibit 25, 26, 27 and 28 are the 4 parts of the Appendix O study. Ex. 25 eFiled: [201310-92790-01](#)

<sup>8</sup> Ex. 29, Application, Appendix P, The New Tie Line Loop Flow Impact Study [201310-92784-02](#)

Note Ex. 29 and Ex. 30 are reversed, Ex. 29 is Appendix P but listed on “List of Appendices” as App. Q, and vice versa).

## Manitoba – U.S. 1100 MW Facility Additions

For the Dorsey – Iron Range project the following facilities were added:

- New Blackberry 500/345 kV substation
- (2) Blackberry 500/345 kV transformers
- (1) Blackberry 500/230 kV transformer
- New 500 kV transmission line between Dorsey and Blackberry 500 kV substations
- 60% series compensation at the midpoint of the 500 kV line
- Double circuit Blackberry - Arrowhead 345 kV line

For the Dorsey – Fargo option the following facilities were added:

- New Bison 500/345 kV Substation
- (2) Bison 500/345 kV transformers
- New 500 kV transmission line between Dorsey and Bison 500 kV substations
- 60% series compensation at the midpoint of the 500 kV line
- A second Twin Cities – Fargo 345 kV line

Ex. 24, Application, Appendix N, Dorsey – Iron Range 500 kV Project Preliminary Stability Analysis Draft Report, p. 4.

On November 14, 2014, Minnesota Power entered the New Tie Line Loop Flow Impact Study Report<sup>9</sup>, dated August 28, 2014 and provided copies for the parties. That study found:

The Eastern Plan **and the associated transmission configurations** notably reduce the impact of North Dakota – Manitoba loop flow on the Manitoba – Minnesota tie lines, and particularly M602F. The Western Plan and associated transmission configurations have the opposite impact on the amount of North Dakota – Manitoba loop flow present on M602F. Comparing the Eastern Plan and the Western Plan, it is evident that the Eastern Plan improves the performance of the Riel – Forbes 500 kV Line (M602F) because the Eastern Plan Dorsey – Iron Range 500 kV Line actually carries some of the North Dakota – Manitoba loop flow that would normally flow on M602F and R50M, reducing the overall impact of North Dakota – Manitoba loop flow on M602F. In contrast, the Western Plan actually causes more North Dakota – Manitoba loop flow on M602F, arguably degrading the performance of the line.

This is because the Western Plan Dorsey – Barnesville 500 kV Line actually increases the total amount of North Dakota – Manitoba loop flow by providing an additional loop flow “entry path” (as discussed in the previous section) without providing an additional transmission line “exit path” adjacent to the existing Manitoba – Minnesota tie lines<sup>2</sup>. The consequence is that nearly all of the resulting additional North Dakota – Manitoba loop flow associated with the Western Plan must flow on M602F. The end result of the

<sup>9</sup>

<a href="#">201411-104642-01</a>	PUBLIC	12-1163	CN	MINNESOTA POWER	INFORMATION REQUESTS--SEPTEMBER 24, 2014 SUPPLEMENTAL RESPONSE TO DOC IR NO. 8	11/13/2014
----------------------------------	--------	---------	----	-----------------	--	------------

Western Plan, therefore, is a significant increase in the impact of North Dakota – Manitoba loop flow on M602F. Therefore, in a consideration of the impact of North Dakota – Manitoba loop flow on the Riel – Forbes 500 kV Line, the Eastern Plan is to be preferred over the Western Plan.

Ex. 62, New Tie Line Loop Flow Impact Study Report, p. 7-8. The Eastern Plan and the associated configurations that produce this result are, not surprisingly, are the 500 kV tie line to the Grand Rapids area in northeastern Minnesota... and the second between Grand Rapids and Duluth, MN:

- **E1b:** E1 + second circuit on existing Fargo – Monticello 345 kV line
- **E2:** E1 + double circuit Grand Rapids – Duluth 345 kV line
- **E2s:** E1 + single circuit Grand Rapids – Duluth 345 kV line
- **E2b:** E2 + second circuit on existing Fargo – Monticello 345 kV line

Id., p. 2, see also p. 20 for specifications. Further, the Tie Line study notes that the CapX 2020 and MVP projects “[h]ave the potential to alter the bias of power flow out of North Dakota in such a way that there is more power flowing south and east out of North Dakota and less loop flow through Manitoba.” Id. at 61, see also p. 26. They go a long way toward solving the loop flow problem. In this study, CapX and MVP lines were removed cumulatively from the case in order to demonstrate that the desired benefit resulted from the “Eastern Plan.”

1. **MVP\_W:** Remove two MISO MVP 345 kV lines in North and South Dakota
2. **MVP\_S:** In addition to MVP\_W, remove several MISO MVP 345 kV lines in northern Iowa and southern Wisconsin
3. **CapX:** In addition to MVP\_S, remove CapX2020 Brookings County – Hampton Corners and Hampton Corners – Briggs Road 345 kV lines

Id., p. 61. In other words, the Iowa and Wisconsin MVP Projects and CapX 2020 provide outlet for generation that otherwise would frolic and detour through Manitoba, so those mitigating projects were removed, and then the “Eastern Plan” had a positive impact on loop flow and increased transfer capacity. However, these projects are built, under construction, or permitted pending construction, and taking them out of the case provides a false measure of the impact of the “Eastern Plan.”

The study demonstrates the ability of these projects to increase incremental transfer capability from Manitoba:

The Eastern Plan has been designed and is being permitted to facilitate a near-term need for at least 750 MW of incremental transfer capability from Manitoba to the United States (MHEX = 2925 MW). In the longer term, there is a potential need for a total of 1100 MW of incremental transfer capability from Manitoba to the United States (MHEX = 3275 MW). The Eastern Plan has been designed such that it could be staged with a double circuit Iron Range – Arrowhead 345 kV Line to achieve the full 1100 MW of potential incremental Manitoba to United States transfer capability, if the need arises.

Id., p. 49. The study also reveals an additional “benefit” of increasing North Dakota outlet capability:

Configuration E1 is capable of facilitating at least 2200 MW of North Dakota outlet capability (today’s level) simultaneously with 2925 MW of Manitoba Hydro export without overloading M602F. In fact, it appears that configuration E1 could potentially facilitate up to 2613 MW of North Dakota outlet capability at this level of MHEX without overloading M602F, though other stability or thermal constraints besides M602F may exist at this level of simultaneous export. On the other hand, if North Dakota outlet capability is maintained at today’s 2200 MW level, configuration E1 could potentially facilitate a total Manitoba Hydro export of over to 3020 MW prior to an overload on M602F.

Id. The New Tie Line Study’s conclusions also point to the cumulative Manitoba and North Dakota export potential:

1. Both the Eastern and Western plans provide increased simultaneous North Dakota and Manitoba outlet capability compared to the Existing System.
2. The Eastern Plan configurations generally provide more potential simultaneous North Dakota and Manitoba outlet capability than the Western Plan configurations.
3. The addition of a double circuit Iron Range – Arrowhead 345 kV Line (configuration E2) is a more effective solution than a single circuit Iron Range – Arrowhead 345 kV Line (configuration E2s) for further increasing the potential simultaneous North Dakota and Manitoba outlet capability available from the Eastern Plan (configuration E1).
4. The addition of a second circuit on the Fargo – Monticello 345 kV Line (configuration W2b, E1b, or E2b) also further increases potential simultaneous North Dakota and Manitoba outlet capability, though the impact is more pronounced for the Western Plan.

Id. at 47. See also studies cited by Hoberg, Ex. 41, Schedule 4, p. 1-4. The Applicants also provided a “Table of Studies” but of these 17 studies listed, only six were provided in the Application as Appendices. The Applicant has the burden of production, and has not provided information sufficient to support its claims. Minn. Stat. §216B.243, Subd. 3.

The Applicant claim benefits would result from this project. See e.g., Ex. 34, McMillan Direct, p. 8-9; Ex. 43, Rudeck Direct, p. 22-23. This project proposal, however, is only a segment of a heavily studied larger project, and the “need” claim for this smaller segment is disingenuous. Not only was the project as proposed not studied separately and independently in the studies provided, and is not capable of providing the benefits claimed by Applicants, but the larger project would grossly increase not only Manitoba export but would facilitate an increase in North Dakota export as well. Every study relied on by the Applicant includes an extension to Duluth, and some extend beyond Duluth. A project ending at Grand Rapids, the Blackberry substation, cannot deliver to WPS as set out in the Transmission Service Requests. Ex. 41, Hoberg Direct, Schedule 3, p. 25 of 33. A project ending at Grand Rapids is not sufficient to provide the benefits desired and claimed.

The Great Northern Transmission Project fails to meet the showing required for a Certificate of Need for each of the criterion that addresses regional energy needs, reliability of energy supply in the region, benefits of enhanced regional reliability access, or deliverability, and under the statute, such a project should not be certified. See Minn. Stat. 216B.243, Subd. 3(3),(5), (6) and (9). Because is only a part of the larger project modeled and studied in the above reports, terminates near Grand Rapids at the Blackberry substation, and as proposed is not extending to the Arrowhead substation in Duluth or even further east into Michigan, it is not what was studied. There is no basis to claim that this would provide benefits, and no showing

that it would not instead destabilize the grid as there are no system stability studies for just this isolated portion of the project. There is no basis to claim that this project would have any impact on the loop flow problem where Buffalo Ridge energy goes through Manitoba and then down to the cities because just this portion of the project was not studied. Further, there is no basis in the record to make any claims as to transfer capacity, no basis for claims of regional benefits, no basis for claims of increased renewable energy to Wisconsin or beyond, because this project terminates at Blackberry and goes no further. This project should not be certified.

### **III. THE PROJECT'S NEED CLAIM IS BASED ON A CONTRACTUAL AGREEMENT TO BUILD TRANSMISSION AND BUY POWER CAPACITY.**

The “need” for this transmission line is based on a contractual requirement in the agreement between Minnesota Power and Manitoba Hydro, and is not based on a “need” as laid out in the Minnesota Certificate of Need criteria. This Certificate of Need docket was opened in 2012, and it is now nearly 2015. As is always true in electricity, much has changed in that time.

The Power Purchase docket was opened in 2011, and the Order issued in February 2012.

Minnesota Power is clear in stating from the very outset that:

The new transmission line is needed to support and allow for the additional capacity and energy provided by its 250 MW Agreements with Manitoba Hydro in the 938 Docket.<sup>10</sup>

Ex. 9, Application, p. 11.<sup>11</sup> The Applicant claims that”

The High Voltage Transmission Line (“HVTL”) developed in the Project would have enough capacity to deliver the 383 MW which are contracted in the 250 MW Agreements and the 133 MW Renewable Optimization Agreements, as well as additional hydropower to other utilities in the United States, thereby meeting future state and regional energy needs. In fact, while large hydropower transfers like this do not satisfy the current renewable energy mandates in Minnesota, such a hydropower transfer could support compliance with renewable energy requirements for utilities in Wisconsin and other states.

---

<sup>10</sup> See PUC Docket E-015/M-11-938.

<sup>11</sup> eFiled: [201310-92766-02](#)

Id., p. 12.

The Application relies on, and contains, the Commission's February 11, 2012 Order in Docket E015/M-11-938, in which the Commission approved the PPA and directed further action:

1. Approved Minnesota Power's Proposed PPA and EEA.
2. Minnesota Power shall, within one year of the date of this Order, and annually thereafter until the start of the agreement, file a report in this docket on various significant milestones achieved regarding the new hydraulic generating facilities and the new major transmission facilities.

Application, Appendix C, Order, p. 1.<sup>12</sup>

The agreement with Manitoba Hydro includes a requirement to build the project and its Power Purchase Agreement for 250 MW and another 133 MW totaling 383 MW. Ex. 9, Application, pps. 3, 16-17, The Applicant notes that:

In approving the 250 MW Agreements... the Department and Commission each recognized that [MP and MH} must construct their own transmission facilities... to allow MH to sell the contracted power to MP.

Id., p. 4, and fn. 8. Based on this, Commerce analysis adopted by the Commission concluded only, no more and no less, that:

Based on the requirements in the PPA regarding the construction of transmission lines by MH and MP, the Department concludes that MP's ratepayers are reasonably protected from the risk of non-completion of the transmission facilities.

Id., p. 15.

A contractual based "need" claim is not "need" under Minnesota's Certificate of Need criteria. The Minnesota Certificate of Need does require evaluation of "promotional activities that may have given rise to the demand for this facility," but nowhere in the record does Applicant claim its contractual agreement to facilitate transfer, sales and marketing electricity as promotional activity.

---

<sup>12</sup> eFiled: [201310-92766-05](#)



**IV. THE PROJECT IS OF A LARGER SIZE THAN NECESSARY IN LIGHT OF THE 250-383 MEGAWATT “NEED” CLAIMED BY THE APPLICANT.**

The claimed “need” is for 250MW + 133 MW of transfer capacity, or 383 MW for the PPA, or a total of 750 MW for the Minnesota Power PPA and transmission requests of others, and 883 MW after “subsequent analysis.” Ex. 42, Winter Direct, p. 3. The project as designed, is a 500 kV triple bundled 1192.5 kcmil ACSR “Bunting” conductor. Ex. 9, Application, p 24; Ex. 42, Winter Direct, p. 4. Expected capacity of the line is 2,000 amps and 1172 MVA. Ex. 9, Application, p 45; Winter Direct, p. 11.

The studies, as above, were focused on 1100 MW increased capacity, consistent with the 1172 MVA rating. The 383 MW of Minnesota Power Transmission Service Requests is roughly one-third of the 1100 MW planned transfer capacity and the 1172 MVA rating of the line.

The Transmission Service Requests provide a more detailed picture of expected capacity at this point in time, with at least 300 MW targeted for Wisconsin point of delivery:

**Table 2: MH-US South Bound Requests**

<b>TSR #</b>	<b>Start Time</b>	<b>Stop Time</b>	<b>Point of Receipt</b>	<b>Point of Delivery</b>	<b>Capacity Requested</b>
MISO 79258450	6/1/2015	6/1/2020	MHEB-MISO	WPS	300
MISO 79258364	6/1/2020	6/1/2036	MHEB-MISO	WPS	200
MISO 79258361	6/1/2020	6/1/2040	MHEB-MISO	MP	133
MISO 76703672	6/1/2017	6/1/2037	MHEB-MISO	MP	250

Ex. 41, Hoberg Direct, Schedule 3, p. 25 of 33 (200 MW of WPS is now held by MH).

The 750 or 833 MW claim of transfer capacity is less than projected and modeled in the studies and less than the rating of the line. If the “need” identified by Minnesota Power and claimed as basis for the project is for 383 MW, or even 750 – 833 MW, there is no basis for a line as large as that proposed. While the “additional sales” are not factored into the cost allocation, the Applicants are relying on that capacity, stating that “a smaller line would not only

fail to facilitate these additional sales...” Ex. 34, McMillan Direct, p. 21.<sup>13</sup> The “additional sales” are what is at issue. This means that the Applicants are oversizing the line in hopes of additional sales, market, and service opportunity. Additional sales, market, and service opportunity is not “need” as defined in Minnesota statute or rules. See Minn. Stat. §216B.243, Subd. 3 and Minn. R. 7849.0120. “Size” is at issue in a Certificate of Need proceeding.

**V. COST OF TRANSMISSION TO RATEPAYERS HAS NOT BEEN FACTORED INTO REVIEW OF THE REASONABLENESS OF POWER PURCHASE AGREEMENT**

The cost of this transmission project to ratepayers has not been a part of the cost review and reasonableness determination for the Power Purchase Agreement. Because this project has not been reviewed in conjunction with the PPA for reasonableness or least cost in light of the costs of transmission, this Commission should remand this to the ALJ for fact finding on those issues. The Commission must not allow docket creep to result in a Certificate of Need without adequate justification of “need,” where one decision boot-straps onto another decision, onto another decision, with a circular reliance on previous decisions claiming to demonstrate “need.”

While Commerce’s analysis, and the Commission’s Order adopting Commerce analysis, found the PPA price “reasonable,” and that “MP’s ratepayers are reasonably protected from the risk of non-completion of the transmission facilities,” and that “MP’s ratepayers are reasonably protected from the operational and financial risks of the PPA,” neither Commerce nor the Commission directly addressed the cost to ratepayers of transmission attributable to the PPA or the impact on reasonableness of the PPA if the transmission costs are factored in.<sup>14</sup> The “Risk of Non-Completion of the Transmission Facilities” was arguably nominally considered, and the conclusion was that “MP’s ratepayers would be reasonably protected from the risk of non-

---

<sup>13</sup> Ex. 34, McMillan Direct, eFiled: [20148-102147-03](#)

<sup>14</sup> See e.g., Ex. 9, App. C, Order., p. 15, p. 19 of Order, eFiled [201310-92766-05](#)

completion of the transmission facilities, along with complete shutdown or partial shutdown of the project.<sup>15</sup> Yet nowhere was the “risk of completion of the transmission facilities,” the cost of transmission to ratepayers as a result of, necessitated by, this PPA figured into the cost or the determination of whether the total cost was reasonable!

These projects cannot be considered in isolation, as neither would occur without the other. The Commission’s approval of the Power Purchase Agreement without consideration of the costs of transmission is inadequate regulatory review. This transmission docket should combine the PPA and transmission dockets for a joint reasonableness and need determination, considering all the costs of transmission associated with and driven by the PPA.

**VI. COST APPORTIONMENT AS PROPOSED IS BASED ON A RATIO OF PPA MEGAWATTS OVER CLAIMED CAPACITY, AN INEQUITABLE RATIO IF CAPACITY INCREASES TO LINE RATING**

The size of the transmission project, and the potential for increased utilization of capacity is at issue in this case because the cost to Minnesota ratepayers of this project is based on a ratio of the claimed “need” of Minnesota Power over the estimate project cost for the Minnesota portion. “Minnesota Power’s customers will be financially responsible for only 28.3 percent of the Project’s capital revenue requirements, the equivalent of the revenue requirements associated with 250 MW of the Project’s total estimated transfer capability.” Ex. 34, McMillan Direct, p. 14.<sup>16</sup> But as above, the capacity of the project is much higher than the 750 MW or 833 MW, and the Minnesota Power equation factors in only the North to South transfers. If that ratio of 250/833 changes, with the Minnesota Power ratepayers locked in at 28.3% and instead revenue requirements for the 250 MW falls due to that changed ratio of increased transfer capacity and

---

<sup>15</sup>See Id., Section III.B referred to in V.B(3)(b)(ii), p. 23 of Order.

<sup>16</sup> Ex. 34, McMillan Direct, eFiled: [20148-102147-03](#)

use of that capacity, where the denominator increases with a constant numerator, this is not equitable to Minnesota ratepayers.

How likely is it that transfers would rise above 883 MW? Quite likely.

Transfer Service Requests, as above, anticipate additional capacity, and capacity not just from North to South, but also from South to North:

**Table 1 MISO System Impact Study A383, A627, A628, A629, A630**

<b>OAIS TSR #</b>	<b>Start Time</b>	<b>Stop Time</b>	<b>Point of Receipt</b>	<b>Point of Delivery</b>	<b>Capacity Requested</b>
MISO 79258668	6/1/2020	6/1/2025	WPS	MHEB-MISO	300
MISO 79258646	6/1/2020	6/1/2036	WPS	MHEB-MISO	200
MISO 79258492	6/1/2020	6/1/2040	MP	MHEB-MISO	133
MISO 79258450	6/1/2015	6/1/2020	MHEB-MISO	WPS	300
MISO 79258364	6/1/2020	6/1/2036	MHEB-MISO	WPS	200
MISO 79258361	6/1/2020	6/1/2040	MHEB-MISO	MP	133
MISO 79429002	6/1/2017	6/1/2037	MP	MHEB-MISO	250
MISO 76703672	6/1/2017	6/1/2037	MHEB-MISO	MP	250

Ex. 41, Hoberg Direct, Schedule 3, p. 25 of 33.

If and when that additional capacity is used, which is likely because a utility would not design a line beyond anticipated capacity use, and because those “additional sales” are at issue, those additional sales, increased capacity use, would change the ratio on which cost apportionment is based, i.e., if the line was used at the 1,100MW capacity, Minnesota ratepayers would be charged the 383/750 inequitably skew the ratio, Minnesota Power ratepayers would use a lower percentage of that greater capacity and should pay a lower percentage of costs.

How will Minnesota ratepayers be protected from paying an unduly high percentage of revenue requirements when it is a percentage based on a ratio of fixed PPA MW over a flexible transfer capability that is expected to increase?

**VII. MINNESOTA POWER HAS NOT JUSTIFIED ITS NEED**

Minnesota Certificate of Need statutory criteria requires that “[n]o proposed large energy facility shall be certified for construction unless the applicant can show that demand for electricity cannot be met more cost effectively through energy conservation and load-management measures and unless the applicant has otherwise justified its need.”

RRANT requests that the Certificate of Need be denied because the Applicant has not met its burden of proof and burden of production for a Certificate of Need and has not justified its need. Further, because this project has not been reviewed in conjunction with the PPA for reasonableness or least cost in light of the costs of transmission, RRANT requests that the ALJ certify this issue to the Commission for remand and rehearing in conjunction with this Certificate of Need request for fact finding on these issues of PPA cost reasonableness.

December 19, 2014



---

Carol A. Overland #254617  
Attorney for Residents and Ratepayers  
Against Not-so-Great-Northern  
Transmission  
1110 West Avenue  
Red Wing, MN 55066  
(612) 227-8638  
[overland@legalelectric.org](mailto:overland@legalelectric.org)