

Staff Briefing Papers

Meeting Date	May 14, 2020	Agenda Item *2	
Company	Minnesota Transmission Owners		
Docket No.	E999/M-19-205		
	In the Matter of the 2019 Minnesota Biennial Transmission Projects Report		
Issues	Should the Commission accept the 2019 Biennial Transmission Projects Report?		
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Relevant Documents

Date

MTO Letter	May 31, 2019
2019 Biennial Transmission Projects Report	Oct. 31, 2019
DOC DER Comments	Nov. 4, 2019
Commission Notice of Comment Period	Nov. 15, 2019
SWRDC Comments	Nov. 19, 2019
2018 NERC LTRA Report	Nov. 21, 2019
DOC DER Comments	Jan. 2, 2020
2019 NERC LTRA Report	Jan. 6, 2020
MTO Reply Comments	Feb. 21, 2020

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The attached materials are work papers of the Commission Staff. They are intended for use by the Public Utilities Commission and are based upon information already in the record unless noted otherwise.

I. Statement of the Issues

Should the Commission accept the 2019 Biennial Transmission Projects Report?

II. Background

A. Procedural History

On May 31, 2019, MTO submitted a letter to the Commission informing that the Minnesota Transmission Owners did not anticipate to have any transmission certification requests included with the 2019 Biennial Report.

On October 31, 2019 the Minnesota Transmission Owners (MTO) filed the 2019 Biennial Transmission Projects Report.

On November 14, 2019 the Department filed completeness comments on the Report.

On November 15, 2019 the Commission issued a notice of comment period and establishing a service list.

On November 19, 2019 the Southwest Regional Development Commission filed comments.

On January 2, 2020 the Department filed comments on the merits of the report.

On February 21, 2020 MTO filed reply comments.

B. Biennial Transmission Projects Report Overview

1. History of Biennial Transmission Projects Reports

In 2001, the Minnesota Legislature enacted Minn. Stat. § 216B.2425, requiring essentially all owners of electric transmission facilities within the state to file biennial reports on the state of their transmission systems. These reports, called biennial transmission projects reports, must identify: (a) any reasonably foreseeable future transmission inadequacies; (b) alternative means of addressing these inadequacies, and (c) the economic, environmental, and social issues associated with each alternative. Utilities may also use these biennial filings to request certification of high voltage transmission lines needed to remedy transmission inadequacies.

The statute requires TOs to report on the involvement of local government officials and other interested persons in identifying transmission inadequacies and analyzing alternative means of resolving them. It also requires TOs to report on the public input they have gathered on the transmission deficiencies identified.

The Legislature later amended the statute to require utilities to also file a report that examines what transmission infrastructure improvements would be necessary to meet the renewable energy objectives set forth in Minn. Stat. § 216B.1691.

2. *2017 Minnesota Biennial Transmission Projects Report*

The Commission's June 12, 2018 Order approving the 2017 Biennial Transmission Projects Report included provisions that pertained to the 2017 filing. The provisions include:

1. Acceptance of the 2017 biennial transmission projects report filed under Minn. Stat. § 216B.2425.
2. Extension of the variance it granted to Minn. Rules, part 7848.0900, to eliminate the obligation to hold the public meetings as described in the rule and to no longer require the alternative measure of a webinar presentation.
3. In the 2019 biennial transmission projects report, the MTO shall include content similar to the 2017 report, and shall include an improved and expanded assessment of non-wire alternatives and a discussion of relevant actions by FERC, MISO, and the Commission related to distributed energy resources and distribution planning.

C. **2019 Biennial Transmission Projects Report**

Minnesota Transmission Owners¹

The 2019 Biennial Transmission Projects Report (2019 Report) was filed in accordance with Minn. Stat. § 216B.2425. The statute requires utilities that own or operate electric transmission facilities in Minnesota to file a report by November 1st, of each odd numbered year, on the status of the transmission system, including present and foreseeable inadequacies and potential solutions. The process is also intended as a method to inform the public of transmission issues in the state and to track the development of solutions.

¹ The Minnesota Transmission Owners membership includes American Transmission Company, LLC, Dairyland Power Cooperative, East River Electric Power Cooperative, Great River Energy (GRE), Hutchinson Utilities Commission, ITC Midwest LLC (ITC), L&O Power Cooperative, Marshall Municipal Utilities, Minnesota Power (MP), Minnkota Power Cooperative, Missouri River Energy Services, Northern States Power Company, Otter Tail Power Company (OTP), Rochester Public Utilities, Southern Minnesota Municipal Power Agency, and Willmar Municipal Utilities. Among the above utilities, East River Electric Power Cooperative, L&O Power Cooperative, Marshall Municipal Utilities, Minnkota Power Cooperative and Rochester Public Utilities are not members of Midcontinent Independent System Operator (MISO); all the others are member of MISO. Northwestern Wisconsin Electric Company (NWECC) owns three miles of 69 kilovolt (kV) transmission line and a portion of a 230 kV substation in Minnesota, did not file a biennial transmission projects report. NWECC's last communication with the Commission was in 2009, and stated that it had no plans for the construction of transmission facilities in Minnesota in the reasonably foreseeable future.

The 2019 Report is a joint effort on the part of utilities that own transmission in the state and is the tenth report to be filed by the MTO. As mentioned, the major purpose of the biennial report is to identify and present near-term transmission inadequacies and to examine possible alternatives for addressing those inadequacies. An inadequacy is generally defined as a situation where existing transmission facilities are unable, in the current or foreseeable future, to consistently and reliably provide electric service in compliance with regulatory standards.

The transmission assets in the state are divided into six geographical regions or planning zones, a map of which is provided as page 28 of the 2019 Report. The 2019 Report identified 95 separate transmission inadequacies across the state, including 41 new ones identified in the 2019 Biennial Report. The majority of these transmission inadequacies were identified by Midcontinent Independent System Operator (MISO) in the 2019 Transmission Expansion Plan (MTEP) Report. A smaller number of projects are proposed by non-MISO utilities or are distribution level projects typically not included in the MTEP report.

III. Parties' Comments

A. Minnesota Department of Commerce, Division of Energy Resources

On November 14, 2019, the Department filed completeness comments. In its comments, the Department stated that most of the required information is located either in the Report or in the referenced MTEP. However, as per Minnesota Rules 7848.1300 B the Department recommended the Commission find the Report complete upon submission of the Midwest Reliability Organization (MRO) section of the North American Electric Reliability Corporation most recent regional load and capability report of the Mid-Continent Area Power Pool (MAPP) or other appropriate regional reliability council. As MAPP has not prepared a Load and Capability Report since May 2009, and in fact no longer exists as of October 2015, the Report included information from the MISO Transmission Expansion Plan instead. The Department claimed that the MRO section of the NERC Long-Term Reliability Assessment (LTRA) more closely complies with the statutory requirement² that a regional load and capability report be submitted.

On November 21, 2019 the MTO filed the Midwest Reliability Organization's (MRO) load and capability report found in the North American Electric Reliability Corporation's (NERC) 2018 Long-Term Reliability Assessment.

On January 2, 2020, the Department filed comments and analysis of the 2019 Biennial Transmission Projects Report, including recommendations as detailed below.

On January 6, 2020 the MTO filed the 2019 NERC Long-Term Reliability Assessment.

² Minnesota Rules 7848.1300 B requires "a copy of the most recent regional load and capability report of the Mid-Continent Area Power Pool or other appropriate regional reliability council." MRO is the "appropriate regional reliability council" for Minnesota utilities.

The Department noted that the Northwestern Wisconsin Electric Company (NWECC) did not submit a biennial transmission plan. Given the limited nature of NWECC’s Minnesota transmission system as referenced in footnote³, the Department had no comments regarding NWECC.

Transmission Inadequacies

The Department identified 8 transmission inadequacy areas where historical demand had been greater than the supply capability after a single transmission contingency occurs, and provided a date by which reliability would be restored to each of these 8 areas based on MTO’s response to the Department Information Request No.1.⁴ Also, the Department identified the following three projects which require a certificate of need (CN) or that were reported as potentially requiring a CN but not yet having a filing date estimated.

Table 1: Schedule of Certificate of Need

Tracking Number	Project	Estimated Filing Date	Responsible Utility
2007-NE-N1	Duluth Area 230 kV	Late 2020 or early 2021	MP
2019-NE-N12	Duluth 115 kV Loop	Late 2020 or early 2021	MP
2015-NE-N12	Iron Range-Arrowhead 245 kV Project	No current need to construct the project	MP

The Department reviewed the MTO’s discussion for the projects listed in Table 1. The table shows that there are relatively few projects planned at this time that potentially require CNs where the timeline is not yet known.

In the 2017 Biennial Transmission Projects Report, Docket No. E99/M17-377, the MTO identified two projects that may require a Certificate of Need in the future depending on load growth and potential storm damage. Table 2 below lists these projects:

Table 2: Projects Formerly Under Evaluation for Certificate of Need

Tracking Number	Project	Responsible Utility
2009-WC-N6	Elk River-Becker Area	GRE

³ On October 22, 2009 Northwestern Wisconsin Electric Company filed its *Transmission Projects Biennial Report (TPBR)*. The TPBR states “NWECC owns approximately three miles of 69kV transmission line and a portion of a 230kV substation.”

⁴ As reported by MTO, six of the eight issues are expected to be resolved within the next two years (by end of calendar year 2022), the rest of them will be fixed by 2027.

2017-WC-N5	DS Line Rebuild Project	GRE
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The Department inquired with MTO for an update on these projects and the response was that neither one of these projects is projected to need a CN at this time as forecasts do not indicate that any 115 kV line will be necessary.⁵

Transmission for Renewables

The report provides a section regarding the Minnesota's Renewable Energy Standard (RES Report) in compliance with Minnesota Statutes §216B.2425, subd. 7. The RES Report is a joint effort separate from that of the MTO but containing many of the same utilities.⁶

The RES Report shows that subject utilities currently have sufficient renewable generation capacity acquired to meet the Minnesota RES needs through 2030. According to the chart on page 157 of the Report, the Minnesota RES utilities also have enough capacity to meet the RES needs of other jurisdictions as well as Minnesota's RES needs through 2030. Thus it appears that significant additional transmission investment for the purposes of the RES is not required in the near future.

Solar Energy Standard

In 2013, the Minnesota Legislature established a solar energy standard (SES) for public utilities, effective by the end of 2020. Minn. Stat. § 216B.1691, subd. 2f, established a solar energy standard of 1.5 percent of a utility's retail sales by the end of 2020. That statute requires public utilities subject to the SES to report to the Commission on July 1, 2014, and each July thereafter, on progress in achieving the standard.

The Department noted that utilities subject to SES requirement are on pace to meet the 2020, 2025 and 2030 SES goals.

Mitigation Costs

In its comments, the Department concluded that due to the significant additions in infrastructure that are expected in the near term and in the future, additional measures are necessary to help ensure that the costs charged to ratepayers for upgrades to the electric system are reasonable. Further, it is important to ensure that decisions made by a utility in response to local governments and others reasonably consider the cost implications of various responses and that the costs of upgrades are allocated appropriately to ratepayers, based on ratemaking principles such as cost-causation, cost minimization, and administrative feasibility.

⁵ See Department Attachment 1.

⁶ The utilities sponsoring the RES Report are: Minnesota Power, Northern States Power Company, Otter Tail Power Company, Dairyland Power Cooperative, Basin Electric Power Cooperative, East River Electric Power Cooperative, Great River Energy, L&O Power Cooperative, Minnkota Power Cooperative, Central Minnesota Municipal Power Agency, Minnesota Municipal Power Agency, Southern Minnesota Municipal Power Agency, Western Minnesota Municipal Power Agency/Missouri River Energy Services, and Heartland Consumers Power District (jointly, the RES Utilities).

When utilities install infrastructure in an area, there are always mitigation measures involved. As long as the costs of such measures are reasonable, prudent, and relatively small in size, it is generally appropriate to allow the costs to be borne by all ratepayers. However, when a mitigation measure is not needed for electrical purposes and is significant in size, it is important to consider whether the costs should be allocated to the entire rate base or to a smaller group of customers, based on the entity requesting such enhancement or optional mitigation. The Department asserted that the application of the cost-causation principle is important because, if optional mitigation costs are consistently allocated to the entire rate base, the incentive to prudently control costs throughout the permitting processes is reduced.

As in previous comments on biennial transmission reports, the Department recommended that the Commission require the rate-regulated electric utilities – Otter Tail Power Company, Minnesota Power, and Xcel Energy – to provide the following information in future rate cases to recover the costs of new energy facilities:

- a summary of all mitigation measures that have been added at any step in the permitting process,
- the general reason for the mitigation measure, including whether the measure was requested or required,
- the entity requesting or requiring the mitigation, and
- the cost of the mitigation measure.

This list should include data regarding mitigation measures that the utilities undertook voluntarily. Such data will enable cost allocations to be considered in ratemaking as appropriate and in a more accurate and consistent manner. The Department also notes that these recommended reporting requirements do not in any way limit the Commission's decision-making authority but instead would better inform the Commission's decision-making process. *Assessment of Non-Wire Alternatives and Discussion of DER and Distribution Planning*

The Commission's Order on the 2017 Report required the MTO to provide an assessment of non-wire alternatives and a discussion of relevant actions by the Federal Regulatory Commission (FERC), the Midcontinent Independent System Operator (MISO), and the Commission related to distributed energy resources (DER) and distribution planning. The Report includes a discussion of non-wires alternatives to transmission projects, and a table summarizing the options and describing the benefits and challenges of each alternative.⁷

The MTO also summarized the activities that the Commission, FERC, MISO and the Institute of Electrical and Electronics Engineers (IEEE) have initiated and continue to pursue related to DER and distribution planning.⁸ Highlights include the work the Commission has undertaken to update the generic DER interconnection standards (Docket No. E999/CI-16-521), FERC Order

⁷ Report, pages 9-14.

⁸ Report, pages 14-17.

841, which enabled electric storage resources to participate in the capacity, energy and ancillary service markets, MISO's efforts to develop a DER participation model, and the IEEE's DER interconnection and interoperability standard (IEEE 1547-2018).

Recommendations

The Department recommended that the Commission approve the 2019 Report, and additionally recommended the Commission require Otter Tail Power Company, Minnesota Power, and Xcel Energy to provide the following information in future rate requests to recover the costs of new energy facilities:

- a summary of all mitigation measures that have been added at any step in the permitting process,
- the general reason for the mitigation measure, including whether the measure was requested or required,
- the entity requesting or requiring the mitigation, and
- the cost of the mitigation measure.

This information should include data regarding mitigation measures that the utilities undertook voluntarily.

B. Public Comments from Southwest Regional Development Commission (SWRDC)

In comments submitted on November 19, 2019 SWRDC indicated that they have reviewed the 2019 Transmission Projects Report, especially as it pertains to the Southwest Zone and acknowledged the two completed projects and seven needed projects and it stated its belief that in general, two of the largest obstacles to building more wind and solar projects are the transmission constraints and lack of storage to handle the intermittency of renewables. SWRDC stated that improved transmission capacity and reliability would likely incentivize more renewable energy projects throughout the state.

C. MTO Reply Comments

Mitigation Costs

Responding to the comments regarding Xcel Energy, Otter Tail Power, and Minnesota Power to provide information on mitigation costs for future projects, the utilities responded that they have no objection to providing such information in future rate recovery requests for new energy facilities. Consistent with its past responses, the utilities continue to maintain that it would be inappropriate for the Commission to order submission of such information in the Biennial Report docket.

In conclusion, the MTO requested that the Commission take action and issue an order on the 2019 Biennial Report consistent with past Commission action that would include the following:

1. Find that the 2019 Biennial Report meets the requirements of Minn. Stat. § 216B.2425 and accept the report.
2. Find that since no party has requested certification for any of the projects listed in the reports, it is unnecessary to certify, certify as modified, or deny certification of any projects.
3. Extend the variance from Minnesota Rules part 7848.0900 that it has granted for the past several reports to relieve the utilities of the obligation to hold public meetings in each transmission planning zone. And further, determine that the MTO shall not be required to hold a webinar on the 2021 Biennial Report.
4. Direct the Transmission Owners to include content similar to the 2019 Report in the 2021 Report.
5. Find that for future reports, MTO may provide a link to the report on the MTO website, www.minneletrans.com, as well as directions to access the report via eDockets, in lieu of mailing CDs or jump drives with electronic copies of the report to the required notice lists.

IV. Staff Analysis

Commission staff has reviewed the entire record in this docket, including the 2019 Report, the Department's comments on completeness and substance, the comments from SWRDC and the reply comments from the MTO.

Transmission Inadequacies

Commission staff believes the additional information submitted by the MTO in response to the Department's request for additional information regarding the projected inadequacies in the transmission system is adequate. The Commission may wish to ask the Department to confirm that is the case.

Transmission for Renewables

Staff agrees with the Department and RES utilities that those utilities subject to the Minnesota RES have acquired sufficient renewable capacity to meet the State's RES and SES requirements through 2030.

Mitigation Costs in Future Rate Cases

Staff notes that the Commission has considered the issue of mitigation costs in future certificate of need proposals since the Order accepting the 2013 Report.⁹ The Commission has agreed with the Department's comments that mitigation-cost information is useful in evaluating the costs of such mitigation measures, but the Commission did not require the transmission owners to include this information in future Biennial Transmission Projects

⁹ Docket 13-402; Commission Order *Accepting Report, Granting Variance, and Setting Additional Requirements* on May 12, 2014.

Reports. Therefore, in accordance with the 2013 and subsequent Orders, staff recommends that the Commission make a similar finding in the Order on the 2019 Report.

The 2019 Biennial Report

In reply comments, MTO asked the Commission to make certain determinations regarding the 2019 Report and to direct the transmission owners to include similar content to the 2019 Report in the 2021 Report. MTO highlighted the fact that the 2019 Report does not include any requests for certification from any party and as such, the Commission should not certify any projects using the 2019 Report as the means of approval.

Summary of SWRDC comments

On November 19, 2019, the Southwest Regional Development Commission staff filed comments summarizing the Biennial Report projects in its region. The SWRDC filing did not contain substantive comments directed to the MTO or Commission and noted that in general, two of the largest obstacles to building more wind and solar projects are transmission constraints and lack of storage to address the intermittency of renewables. SWRDC comments further stated that improved transmission capacity and reliability would likely incentivize more renewable energy projects throughout the state.

Public Participation

In the June 12, 2018 *Order Accepting the 2017 Biennial Transmission Projects Report* the Commission extended the variance it had previously granted to Minn. Rules, part 7849.0900, to eliminate the obligation to hold the public meetings described therein. Similar to the June 12, 2018 Order, staff recommends the Commission extend this rule variance for the 2021 Biennial Transmission Projects Report to not require public meetings or to require the MTO to hold a webinar as an alternative to the public meetings.

Staff notes that the criteria for granting a rule variance are set out in Minnesota Rule 7829.3200 which specifies three criteria:

- A. enforcement of the rule would impose an excessive burden upon the applicant or others affected by the rule;
- B. granting the variance would not adversely affect the public interest; and
- C. granting the variance would not conflict with standards imposed by law.

Staff believes that the criteria are met as follows:

1. enforcement of the rule would require Transmission Owners to spend money unnecessarily and would divert the time and attention of several engineers and other experts to participate in meetings that have traditionally, not been well attended;

2. given the consistent lack of interest in transmission planning, granting the variance does not conflict with the public interest; and
3. staff is unaware of any standards imposed by law that would conflict with the variance.

V. Decision Options

1. 2019 Biennial Transmission Projects Report
 - a. Accept the 2019 Transmission Projects Report.
 - b. Reject the 2019 Transmission Projects Report.
 - c. Take some other action.

2. Mitigation Measures Reporting Requirements
 - a. Encourage the Department to collect information on mitigation costs in future certificate of need applications for energy projects, including transmission projects.
 - b. Take no action at this time.

3. 2021 Biennial Transmission Projects Report
 - a. Extend the variance to the public participation requirements of Minn. Rule 7848.0900 and decline to require a webinar presentation on the projects Report as an alternative measure.
 - b. Require MTO to file the 2021 Report with the content similar to 2019 Report.
 - c. Additionally, require MTO to include in the 2021 Report the requirements addressed in Minn. Stat. § 216B.2425 Subd 2.
 - d. Require some other action.

Staff Recommendation: 1a, 2a, and 3a, b & c