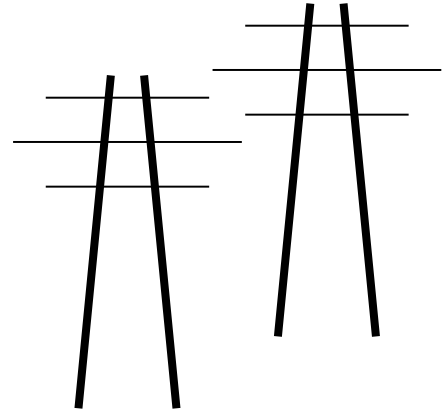


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January 15, 2024

Will Seuffert
Executive Secretary
Public Utilities Commission
121 – 7th Place East, Suite 350
St. Paul, MN 55101

via eDockets only

RE: Initial Comment
Biennial Transmission Projects Plan - PUC Docket M-23-91

Dear Mr. Seuffert:

Attached and eFiled please find Overland Initial Comment on the Biennial Transmission Projects Report. Attached also please find Attachment 1, PUC IRs (to assure they're considered as part of the record); Attachment 2, House Research "highlights" of "Xcel's Approved 2020-2045 Integrated Resource Plan; and Attachment 3, Overland Completeness Comment.

I want to stress again comment made in the Completeness round regarding the distinction between MISO "approval" and Certificate of Need criteria:

It's clear that the utilities rely on MISO transmission planning for its need claims, planning which is market based. All such references to MISO "approval" should be stricken from this Report, as this is not a demonstration of need, but of marketing plans.

Generally, it was my understanding that the purpose of the Biennial Transmission Plan was to provide an overview of the big picture of transmission in Minnesota, and to use that information to provide advance notice to local governments and the public and guide Commission decisions. On that note, considerations for the Biennial Transmission and the Commission:

- The Biennial Transmission Plan and Integrated Resource Plan, Hosting Capacity Plan, Distribution Report, etc., and particularly plant closures and new or altered load centers, taken collectively, can be a way for the Commission to look at existing transmission and determine where generation projects should be sited, where load shows that solar and

storage should be located. The Commission needs a big picture focus regarding transmission planning.

- The Commission must conscientiously distinguish “need” from corporate wants and desires.
- The Commission must conscientiously distinguish “need” from MISO “approval.”
- The Commission must stop accepting a utility’s “need” statement as “need” demonstration.
- The Biennial Transmission Plan 6.0 is labeled “Needs,” which is presumptive!

Certificate of Need, Transmission “Planning,” and proposed “Streamlining” from the “Stakeholder Report”¹ recently disclosed, beginning with Certificate of Need:

- Current need requirements include important factors for which too many projects are exempted, i.e. Minn Stat. § 216B.243, and the Commission seems to improperly and unofficially deem those projects in the Biennial Transmission Plan as “needed,” despite no request for Certification. The Certificate of Need statute includes requirement of information that’s too often exempted, and/or language which the Commission chooses to interpret in favor of project promoters. **ENERGY POLICY IS NOT “NEED.”:**
 - (1) the accuracy of the long-range energy demand forecasts on which the necessity for the facility is based; **(We know that utilities too often overstate demand, which ends up in ratepayers and landowners paying the price for unnecessary transmission.)(CapX 2020 was based on 2.49% annual increase in peak demand! And now we’re paying for that gross overstatement that was accepted by Commission.)**
 - (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; **(Transmission is by nature inefficient, and line loss of the discrete project must be evaluated, not it’s relatively minute piece in the ENTIRE EASTERN INTERCONNECT! When asked about this at a recent Planning Meeting, the response was that individual project line loss would be provided. VERIFY, as it’s not been provided in prior individual dockets.)**
 - The tie-in to the Biennial Transmission Plan:
 - (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; **(Grants, funding, Commission “planning meeting” time devoted to those promoting transmission should be recognized as the transmission “promotional activities” that they are. The Commission has abjectly failed to recognize promotion activities that “give rise to the demand for this facility”). (The “stakeholders” report unveiled January 3 was a disturbing example of promotional activities. [Lipschultz’s “Permitting Reform Stakeholder Report”](#) online at <https://legalelectric.org/weblog/25855/>)**

¹ <https://legalelectric.org/weblog/25855/>

- (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; **(More consideration should be given to the annual NERC Long Term Reliability Assessments, which is based on utility provided information yet presents a much different view than the histrionics heard in “Planning Meetings” and in individual transmission proposals.)**
- (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; **(In my experience, little or no consideration is given to these options. Further, in alternatives analysis, an alternative is deemed inadequate if it only provides for SOME of the need, or if it does not fulfill specific project objectives not related to need, such as a marketing objective.)**
- (7) the policies, rules, and regulations of other state and federal agencies and local governments; **(Again, policy is not need. Local governments’ objections to project are rarely given any weight.)**
- (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; **(and include costs such as line loss, eminent domain & Buy the Farm, cost of wetland replacement, etc. in the analysis)**
- (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**; **(Has any transmission project ever resulted in lower cost for electric consumers in Minnesota? Good grief, wasn’t CapX enough of a demonstration that our electric bills are soaring due to xmsn construction, and plus the useless rebuild of Sherco 3 that’s going to be shut down.).**
- (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;**

Subd. 3a. Use of renewable resource.

The commission may not issue a certificate of need under this section for a large energy facility that generates electric power by means of a nonrenewable energy source, or that transmits electric power generated by means of a nonrenewable energy source, unless the applicant for the certificate has demonstrated to the commission's satisfaction that it has explored the possibility of generating power by means of renewable energy sources and has demonstrated that the alternative selected is less expensive (including environmental costs) than power generated by a renewable energy source. For purposes of this

subdivision, "renewable energy source" includes hydro, wind, solar, and geothermal energy and the use of trees or other vegetation as fuel.

- (12) if the applicant is proposing a nonrenewable generating plant, the applicant's assessment of the risk of environmental costs and regulation on that proposed facility over the expected useful life of the plant, including a proposed means of allocating costs associated with that risk. **(Remember Xcel's Certificate of Need to uprate Prairie Island, CoN granted, and Xcel withdrew, IT WASN'T NEEDED!! Talk of new nuclear is disturbing, there's been NO demonstration? Nuclear waste? COSTS?!?!)**

Legislation should be introduced to require that new load industrial projects must include rooftop, parking lot, parcel solar to significantly offset electrical demand (a percentage, a kw/MW specification based on project proposers' need and use?)

The Farce of the "Minnesota Energy Connection" Transmission Project

The scheme of transmission planning and justification via Certificate of Need can be circumvented via "Certification" in the Biennial Transmission Plan and through a utilities' Integrated Resource Plan. We can see this in the "Minnesota Energy Connection" line proposed by Xcel to preserve its transmission rights, a purely corporate economic idea.

When looking at the "Minnesota Energy Connection," do not neglect consideration of that project in relation to the two large projects proposed, the Big Stone South – Alexandria – Big Oaks PUC Dockets CN-22-538 and TL-22-131 (and remember the Big Stone II transmission project?); and the "Northland Reliability Project" in PUC Docket CN-22-416 and TL-22-415 from Itasca County to Benton County.

Xcel has also segmented the "Minnesota Energy Connection" proposal, which detracts from the big picture.

From my "Completeness" Comment, these points bear repeating:

The Biennial Transmission Projects Report is incomplete to the extent that it notes the "Minnesota Energy Connection" project:

The Minnesota Energy Connection would extend from the Sherco Power Plant in Sherburn County to somewhere in Lyon County. The planned line will carry renewable generation back Sherco Plant as part of the renewable repowering effort.

Biennial Transmission Projects Report, p. 36.

These two sentences are conflicting, stating in the first that the MEC would extend "from" the Sherco Power Plant, and in the second, that it will "carry renewable generation back Sherco

Plant (sic)”. . . This directional statement is false as it’s stated to be designed to move energy generated near Lyon County to Sherco. Further, the Minnesota Energy Connection is not about “renewable energy,” but is obviously, as stated by Xcel, an effort to preserve its transmission interconnection rights. With the plan of the Big Stone-Alexandria-Big Oak line, and the “Northern Reliability Project,” why propose another line into that area, particularly one that has no justification other than Xcel’s economic interest. The Biennial Transmission Projects Report is incomplete without additional information on Xcel’s plan (see e.g. PUC Dockets CN-22-131; TL-22-132; M-23-342, etc.)

This project is also referenced on p. 227, together with a similar scheme for the King Plant, planned to be permitted in Wisconsin:

Xcel Energy initiated two projects, MN Energy Connection and King Connection, which are designed to utilize existing transmission access rights. The MISO interconnection queue has a significant number of new interconnection requests currently seeking to connect to a system that is already very congested. Reusing existing transmission rights through the MN Energy Connection and King Connection Projects allows Xcel Energy to interconnect additional MWs through its existing transmission rights, avoiding long delays often related to MISO queue interconnection studies.

Biennial Transmission Projects Report, p. 227. **Neither the Minnesota Energy Connection, or the (? Name) King connection projects were included in the substantive narrative of the 2021 Biennial Transmission Projects Report. These large transmission projects of Xcel are also not included in the substantive narrative regional sections of the 2023 report, and s ionly mentioned in the 2023 Biennial Transmission Projects Report as an afterthought at the end.** The Biennial Transmission Projects Report must report these projects and provide rationale or support for these projects in connection to the many other projects proposed. Given the massive cost to be inflicted on ratepayers and impacts of eminent domain and environmental impacts, if Xcel has its way, there must be disclosure in this transmission plan of Xcel’s plans – and consideration of the impacts of Xcel’s plans and “need” on transmission needs across Minnesota and the region. These projects are not part of any of the MISO Tranche economic/marketing reports thus far (noting that even in the MISO MTEPs, the “benefits” are to the transmission owners, and not ratepayers or society at large!).

Also, as an afterthought, the goal of bulk power transfer across the system is clearly stated:

- MISO LRTP Tranche 1 projects in Minnesota utilize existing 345 kV second circuit capabilities where possible, which will increase the overall ability to transfer power across the system.
- Xcel Energy initiated an internal study process to determine any transmission system reconfigurations on the underlying transmission system able to have a positive impact on the bulk transmission system and congestion. Xcel Energy Transmission Operations factor both system reliability, curtailment, and congestion when considering/scheduling transmission outages.

Id. The disingenuous nature of the plans to retain Sherco and King interconnection rights for Xcel needs to be thoroughly exposed and notice provided to landowners and ratepayers of the dollar amounts at risk (the value of these interconnection rights) and deserves far more than an afterthought at the end of the Biennial Transmission Projects Report. The public interest demands assurance that these projects that are planned to preserve Xcel's interest are not foisted on ratepayers and landowners. On the heels of the exorbitant costs of the recent rehab of Sherco 3, this plan of Xcel's to foist its corporate wants on ratepayers is offensive beyond belief, yet the Commission seems to be falling for it.

NERC Long Term Reliability Assessment v. Biennial Transmission Report

As to need, it's good to see the NERC Long Term Reliability Assessment² attached to the Biennial Transmission Report. This NERC report is relevant to need, particularly its consideration of the potential generation changes and line-up of transmission. Not enough consideration is given to the closing of coal plants and the significant transmission capacity that will free up. Pay particular attention to the reserve margins. We've been told repeatedly that transmission build-out will decrease needed reserve margin. How's that working? If so, what's the impact on "need" for the massive MISO Tranche 1 build-out? When claiming a 1,300 MW shortfall (LTRA p. 9), does the NERC LTRA account for/consider Xcel's 1,500 MW of excess capacity? From [Xcel's 2022 SEC 10-K](#) filing):

MISO Capacity Credits

The NSP System offered 1,500 MW of excess capacity into the MISO planning resource auction for June 2022 through May 2023. Due to a projected overall capacity shortfall in the MISO region, the 1,500 MWs offered cleared the auction at maximum pricing, generating revenues of approximately \$90 million in 2022, with approximately \$60 million expected in 2023. These amounts will primarily be used to mitigate customer rate increases or returned through earnings sharing or other mechanisms.

The NERC LTRA shows that LOLE projection is safely less than one hour/year. (LTRA, p. 9)

The Biennial Transmission Plan should address peak demand and impact on planning, as transmission, and alternatives to transmission, must be developed based on peak, and reduction in peak through shifting demand. The NERC Report shows this reduction in load "growth," and the transmission plan should address Minnesota and MISO specific impacts and considerations of the significantly decreased peak demand projected since the bizarre CapX 2020 projection of 2.49% circa 2006. See NERC LTRA p. 20; see also Xcel's annual SEC 10-Ks for peak demand.

² NERC Long Term Reliability Assessment, December 2022

https://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/NERC_LTRA_2022.pdf

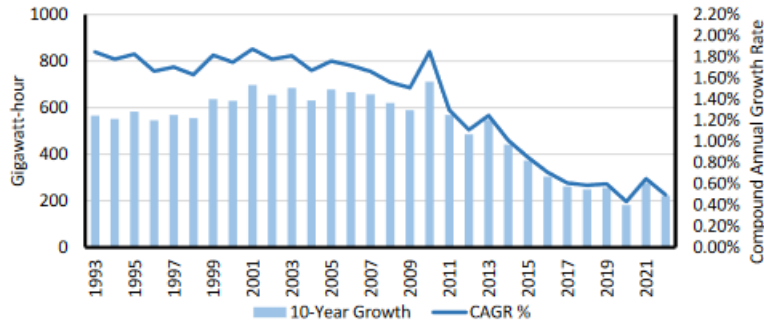
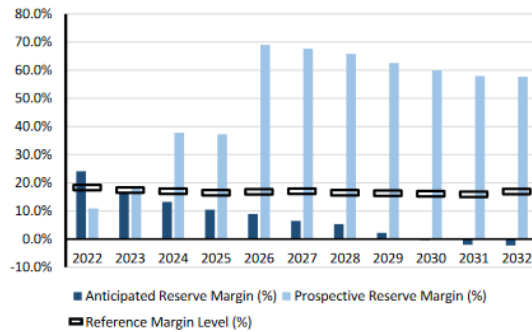


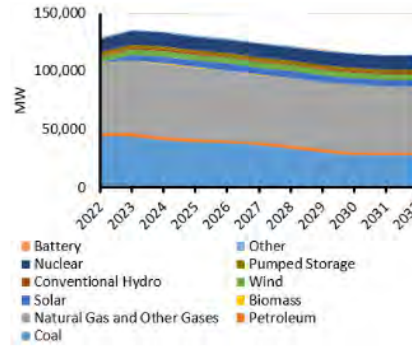
Figure 19: The 10-Year Net Energy to Load Growth and Rate Projection Trends

The NERC LTRA shows that looking at existing and projected generation there’s adequate generation to go around, and that means it’s a matter of siting, not a reason for new transmission:

Demand, Resources, and Reserve Margins (MW)										
Quantity	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Internal Demand	124,950	126,091	126,212	126,298	126,631	126,965	127,240	127,652	128,320	128,317
Demand Response	6,158	6,189	6,116	6,130	6,131	6,051	6,052	6,054	6,050	6,017
Net Internal Demand	118,792	119,902	120,096	120,168	120,500	120,914	121,188	121,599	122,269	122,300
Additions: Tier 1	6,605	8,253	8,311	8,311	8,311	8,311	8,311	8,311	8,311	8,311
Additions: Tier 2	2,322	30,796	35,517	76,576	78,071	78,096	78,096	78,096	78,096	78,096
Additions: Tier 3	2,193	3,504	5,501	6,055	8,581	9,331	10,538	11,621	12,226	12,409
Net Firm Capacity Transfers	1,593	1,598	767	767	663	593	598	493	493	155
Existing-Certain and Net Firm Transfers	131,538	127,506	124,353	122,572	119,986	119,034	115,593	112,865	111,440	111,204
Anticipated Reserve Margin (%)	16.3%	13.2%	10.5%	8.9%	6.5%	5.3%	2.2%	-0.3%	-2.1%	-2.3%
Prospective Reserve Margin (%)	18.2%	38.9%	40.0%	72.6%	71.3%	69.9%	66.7%	63.9%	61.8%	61.6%
Reference Margin Level (%)	17.4%	17.0%	16.5%	16.8%	17.0%	16.5%	16.3%	16.1%	15.9%	16.9%



Planning Reserve Margins



Existing and Tier 1 Resources

The Biennial Transmission Projects Report is incomplete to the extent that it does not address this dissonance of NERC LTRA’s projected generation additions, extreme projected reserve margins, LOLE within acceptable level, with the utilities plan for yet another massive transmission build-out on the backs of ratepayers.

The Biennial Transmission Projects Report also lists OPGW replacement, and is incomplete as it does not address the need for replacements, whether as transmission control and/or as fiber leased to 3rd parties, or some other reason, nor does it address revenue provided by OPGW and how rates will be adjusted for lease and other OPGW revenue. OPGW is listed as component of seven projects:

- 2023-NE-N2 – Minnesota Power, p. 99
- 2023-TC-N21 – Xcel, p. 155
- 2023-TC-N28 – Xcel, p. 159
- 2023-TC-N30 – Xcel, p. 160

- 2023-SW-N5 – Xcel, p. 173 & 182
- 2023-SE-N2 – Xcel, p. 193
- 2023-SE-N4 – Xcel, p. 195

The Biennial Transmission Projects Report is incomplete as it notes the “Minnesota Energy Connection” project:

The Minnesota Energy Connection would extend from the Sherco Power Plant in Sherburn County to somewhere in Lyon County. The planned line will carry renewable generation back Sherco Plant as part of the renewable repowering effort.

Biennial Transmission Projects Report, p. 36.

Recently, there was a lower level upgrade presentation to the Commission: These projects should be reviewed and compared to those shown in the Biennial Transmission Report. I recently learned that the Rost 115kV line has been segmented. Have other smaller projects also been segmented? Segmentation limits regulatory review.

OPGW as a Revenue Source

The Biennial Transmission Projects Report also lists OPGW replacement, and is incomplete as it does not address the need for replacements, whether as transmission control and/or as fiber leased to 3rd parties, or some other reason, nor does it address revenue provided by OPGW and how rates will be adjusted for lease and other OPGW revenue. For each of the projects specifically identifying OPGW uprate/replacement, the revenue from OPGW should be disclosed and considered by the Commission.

OPGW is listed as component of seven projects:

- 2023-NE-N2 – Minnesota Power, p. 99
- 2023-TC-N21 – Xcel, p. 155
- 2023-TC-N28 – Xcel, p. 159
- 2023-TC-N30 – Xcel, p. 160
- 2023-SW-N5 – Xcel, p. 173 & 182
- 2023-SE-N2 – Xcel, p. 193
- 2023-SE-N4 – Xcel, p. 195

Bulk Power Transfer Inherent in Plans for High Voltage Transmission Lines

Also, as an afterthought, the goal of bulk power transfer across the system is clearly stated:

- MISO LRTP Tranche 1 projects in Minnesota utilize existing 345 kV second circuit capabilities where possible, which will increase the overall ability to transfer power across the system.

- Xcel Energy initiated an internal study process to determine any transmission system reconfigurations on the underlying transmission system able to have a positive impact on the bulk transmission system and congestion. Xcel Energy Transmission Operations factor both system reliability, curtailment, and congestion when considering/scheduling transmission outages.

Id. The disingenuous nature of the plans to retain Sherco and King interconnection rights for Xcel needs to be thoroughly exposed and notice provided to landowners and ratepayers of the dollar amounts at risk (the value of these interconnection rights) and deserves far more than an afterthought at the end of the Biennial Transmission Projects Report. The public interest demands assurance that these projects that are planned to preserve Xcel's interest are not foisted on ratepayers and landowners.

It's not rocket science, not even engineering, to acknowledge the market drive for additional bulk power transfer. And again, we know from Xcel's SEC 10-K filing that it is marketing 1,500MW of excess capacity to the line.

Is building transmission for utilities to use to sell electricity to entities, areas, not part of their regulated service territory in the public interest? Is this in the ratepayers interest? When the public is complaining loudly about increased rates, about sharp increases in their electric bill, what is the Commission doing to regulate these utilities and these expensive projects?

The Commission really blew it in approving the rehabilitation of Sherco 3, which we are now paying for despite the plans to close it – ratepayers should get a refund for the planned life post repairs that are not used... or are Sherco 3 utilities planning to call this “stranded costs” (when it's really stranded ASSETS).

Summing up the above, it's crucial for the Commission to look at the big picture of all this transmission and the impacts on rates and intrusion on landowners property, the distinction between “need” as defined by statute and utilities' wants and desires, and for the Commission to discontinue granting utilities exemptions when the information required by statute is important to the Certificate of Need analysis. The Commission must address the impact of these massive bulk power transmission projects, particularly in shutting out rationally placed distributed generation projects. If we spent the money proposed on solar and batteries near load that we're spending on transmission, where would we be? Until we have done that, there's no NEED for transmission, and no need for the transmission hysteria we're frequently seeing from transmission promoters.

Thanks for our consideration of this Initial Comment.

Very truly yours,



Carol A. Overland
Attorney at Law

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 Public Document

MTOs Information Request No. 1
Docket No.: E999/M-21-111; E999/M-23-91
Response To: Minnesota Public Utilities Commission (MPUC)
Requestor: Charley Bruce, Craig Janezich
Date Received: May 12, 2023

Question:

Staff requests that the MTOs provide an assessment of the current transmission system in Minnesota and its ability to reach the carbon-free standard by 2040, as required by Minnesota Laws 2023, Chapter 7, section 10 recently passed by the Minnesota Legislature.

Response:

Minnesota Laws 2023, Chapter 7, contains several updates to the clean energy standards set forth in Minn. Stat. § 216B.1691, including additional milestones for renewable energy and new carbon-free energy standards. The standards now include:

	2025	2030	2035	2040
Renewable Energy (RES)	25%		55%	
Solar Energy* (SES)	1.5%		10%	
Carbon-free Energy (CFS)		80% for public utilities; 60% for other electric utilities	90%	100%

*See Minn. Stat. § 216B.1691, subd. 2f, for additional detail relevant to the solar energy standards.

As noted in previous Biennial Reports, the utilities that are required to submit the Biennial Transmission Projects Report are not identical to those that are required to meet the RES, SES, and now the CFS. The utilities participating in this part of the 2023 Biennial Report that will also report on renewable and carbon-free energy include the following:

Investor-owned Utilities

Minnesota Power
Northern States Power Company
Otter Tail Power Company

Generation and Transmission Cooperative Electric Associations

Basin Electric Power Cooperative
Dairyland Power Cooperative
East River Electric Power Cooperative¹
Great River Energy
L&O Power Cooperative¹
Minnkota Power Cooperative

Municipal Power Agencies

Central Minnesota Municipal Power Agency
Minnesota Municipal Power Agency
Southern Minnesota Municipal Power Agency
Western Minnesota Municipal Power Agency/Missouri River Energy Services

Power District

Heartland Consumers Power District

Currently, each of these utilities is meeting the 25% by 2025 RES requirements with the existing transmission system. The Commission is currently seeking stakeholder input to provide guidance to electric utilities on implementation of the RES and SES requirements in Docket No. E999/CI-23-151. At the request of the Department of Commerce, the comment period in this docket was extended such that initial comments are due on July 12, 2023, and reply comments are due on July 28, 2023.

According to the Notice of Comment Period in Docket No. E999/CI-23-151, the Commission plans to take up implementation guidance for the CFS after it has issued orders providing guidance on compliance with the new RES and SES requirements. Accordingly, the MTO utilities are still in early planning stages related to compliance with 2023 Minnesota Session Laws, Chapter 7. It is unlikely that the Commission's guidance on the RES, SES, and CFS will be available in time for the MTO to complete a full gap analysis or conduct additional analyses to identify needs in the existing transmission system in Minnesota to fully implement 2023 Minnesota Session Laws, Ch. 7 in time for the November 1, 2023 filing of the 2023 Biennial Report.

¹ L&O Power Cooperative ("L&O") and East River Electric Power Cooperative ("EREPC") are members of and contracts with Basin Electric Power Cooperative ("Basin") to supply all generation beyond L&O's and EREPC's Western Area Power Administration ("WAPA") allocation. It will be Basin's obligation to adhere to the applicable generation laws in Minnesota. Also, L&O and EREPC are members of Southwest Power Pool ("SPP") who performs the transmission planning on the system. L&O and EREPC intend to construct new or upgrade existing facilities as directed by SPP as a result of additional load flows realized by the addition of local carbon-free generation sources.

The MTO has been participating, along with Commission Staff and other stakeholders, in the robust planning effort that MISO is undertaking to identify Tranche 2 projects through the Long-Range Transmission Planning (LRTP) process. The base planning assumptions for Tranche 2 include Minnesota’s new CFS by 2040 legislative requirements. MISO’s current schedule anticipates Board of Directors approval for Tranche 2 projects in the first half of 2024.² Given the November 1 statutory filing deadline for the 2023 Biennial Report, it is unlikely that these projects will be identified in the 2023 Biennial Report. The MTO utilities continue to engage with MISO around the assumptions, modeling, and planning activities for the LRTP Tranche 2 projects to advance progress on the identification of additional transmission necessary to implement Minnesota’s new carbon-free legislation.

Lead Preparers:	Jason Standing (Xcel Energy)	Gordon Pietsch (GRE)
Title:	Manager	Director
Department:	Integrated Transmission Planning	Transmission Planning & Compliance
Telephone:	612-330-7768	763-445-5941
Date:	June 29, 2023	

² <https://cdn.misoenergy.org/MISO%20Long-Range%20Transmission%20Planning%20LRTP%20Tranche%20202%20FAQs627648.pdf>

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MTOs	Information Request No.	2
Docket No.:	E999/M-21-111; E999/M-23-91	
Response To:	Minnesota Public Utilities Commission (MPUC)	
Requestor:	Charley Bruce, Craig Janezich	
Date Received:	May 12, 2023	

Question:

What upgrades, improvements, and future investments in transmission are being planned in order to achieve this requirement?

Response:

As noted in response to MPUC Information Request No. 1, the MTO has been participating, along with Commission Staff and other stakeholders, in the robust planning effort that MISO is undertaking to identify Tranche 2 projects through the Long-Range Transmission Planning (LRTP) process. The base planning assumptions for Tranche 2 include implementing Minnesota's new carbon free energy standards by 2040.

At the June 5, 2023 LRTP workshop, MISO indicated they have completed the generation expansion effort for Tranche 2 and have leveraged the latest utility and State plans and policy into MISO's Series 1A Futures effort. MISO indicated that they are building their base models for Future development, and proposed expansion plans, representing critical (energy limited) times throughout the future years to be studied. They anticipate having solved base models available in late summer. MISO plans to host subregional transmission planning meeting in July to gather input on transmission solutions that should be considered to meet the objectives of the Tranche 2 effort.

MISO's current schedule anticipates identification of Tranche 2 projects in early 2024. Given the November 1 statutory filing deadline, it is unlikely these projects will be identified in the 2023 Biennial Report. The MTO utilities continue to engage with MISO around this planning activity to advance progress on the identification of additional transmission necessary to implement Minnesota's new carbon-free legislation.

For L&O and EREPC, SPP members, no upgrades are currently planned to achieve the Minnesota statutory requirements, but L&O and EREPC will adhere to future upgrades and improvements as directed by SPP – see the MTO response to MPUC Information Request No. 1.

Lead Preparers:	Jason Standing (Xcel Energy)	Gordon Pietsch (GRE)
Title:	Manager	Director
Department:	Integrated Transmission Planning	Transmission Planning & Compliance
Telephone:	612-330-7768	763-445-5941
Date:	June 29, 2023	

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MTOs	Information Request No.	3
Docket No.:	E999/M-21-111; E999/M-23-91	
Response To:	Minnesota Public Utilities Commission (MPUC)	
Requestor:	Charley Bruce, Craig Janezich	
Date Received:	May 12, 2023	

Question:

Staff requests that the MTOs provide an assessment of how their project planning process will include an analysis of project impacts on environmental justice areas as defined in Minnesota Law 2023, Chapter 7, section 3, including an assessment of the expected local benefits as detailed in section 15 of the same law.

Response:

While each utility's planning efforts differ slightly, the MTO anticipates the following analyses and engagement will be conducted as part of the planning activities for newly proposed transmission lines in Minnesota:

1. Early in the planning process, mapping tools will be used to identify and assess environmental justice (EJ) communities in the vicinity of each project area. Utilities have relied on the Minnesota Pollution Control Agency's (MPCA) screening tools to help identify EJ areas.¹ The MTO anticipates that MPCA's screening tools will be updated to reflect the new EJ definition in Minnesota Laws 2023, Chapter 7, Section 3.
2. Utilities will engage with these potentially affected EJ communities to ensure equitable access to the planning processes, solicit diverse and representative input, and work to understand community values. This engagement is likely to occur through several outreach efforts, including open houses, discussions with community leaders, social media, and other efforts. The goals of this engagement include developing initial understanding of potential project impacts, both beneficial and adverse; gathering preliminary feedback; and establishing an ongoing two-way engagement process.

Tribal governments and Tribal Historic Preservation Offices, identified through the U.S. Department of Housing and Urban Development's Tribal Directory Assessment Tool or the Minnesota Indian Affairs Council as having historic ties to land in proximity to planned project areas will be notified early in the planning process, so that

¹ See e.g., <https://mpca.maps.arcgis.com/apps/MapSeries/index.html?appid=f5bf57c8dac24404b7f8ef1717f57d00>.

Tribes have the opportunity to advise of any sensitive historical or cultural sites to be avoided.

3. In parallel with the identification and engagement processes, the utilities will also work to identify local benefits as listed in Minnesota Laws 2023, Chapter 7, Section 15.

Consistent with current practice, the MTO anticipate information gathered in these processes will be reflected in any resulting Minnesota certificate of need and route permit applications, so the information is available for the MPUC's consideration as part of the full record.

Lead Preparers:	Jason Standing (Xcel Energy)	Gordon Pietsch (GRE)
Title:	Manager	Director
Department:	Integrated Transmission Planning	Transmission Planning & Compliance
Telephone:	612-330-7768	763-445-5941
Date:	June 29, 2023	

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MTOs Information Request No. 4
Docket No.: E999/M-21-111; E999/M-23-91
Response To: Minnesota Public Utilities Commission (MPUC)
Requestor: Charley Bruce, Craig Janezich
Date Received: May 12, 2023

Question:

Staff requests the MTOs provide comments on what actions are being taken to alleviate congestion in Southwest Minnesota and to help limit the curtailing of wind resources in that area.

Response:

MTO utilities have taken numerous actions in recent years to alleviate congestion in Southwest Minnesota in an effort to limit curtailment of wind resources in this area. These efforts include:

- a. NSP System Upgrades: Xcel Energy did internal analysis to determine small projects designed to remove system limiters on congested lines in Southwest Minnesota. These projects typically focused on substation equipment and sag limits. Projects budgeted are listed below:

Xcel Congestion Projects

Substation	Chisago County (CHI)
Scope	Replace primary and secondary 115 kV bus 1 differential relays for TR05 and TR06
Property Units	(4) Control System
ISD	8/1/2022

Substation	Inver Hills (IVH)
Scope	Replace busbar
Property Units	(1) Conductor
ISD	3/1/2023

Substation	Kohlman Lake (KOL)
Scope	Replace meter on breaker 5P106
Property Units	(1) Control System
ISD	8/1/2022

Substation	Prairie (PRA)
Scope	Replace meter on breaker 5G8
Property Units	(1) Control System
ISD	8/1/2022

Substation	Scott County (SCO)
Scope	Replace busbar
Property Units	(1) Conductor
ISD	3/1/2023

Substation	Wilmarth (WLM)
Scope	Replace bushing current transformers on breaker 5S11, and switches 8S26B1, 8S25B, 8S25A, 8S26B1
Property Units	(1) Circuit Breaker (BCT) (4) Switches
ISD	3/1/2023

Substation	Riverside (RIV)
Scope	Replace switches 5M330B, 5M331B, 5M329A, 5M330A, 5M329B, 5M331A, aux current transformers on 5M304 and 5M305, and two sections of busbar
Property Units	(6) Switches (2) Device, Potential (2) Conductor
ISD	3/1/2023

Substation	Red Rock (RRK)
Scope	Replace bushing current transformers on breaker K2, switches K2B1, 946B, K2B2, 946A, and meters on 946 and K2
Property Units	(1) Circuit Breaker (BCT) (4) Switches (2) Control Systems
ISD	3/1/2023

- b. Xcel Energy initiated an out-of-cycle request to MISO for completing the second 345 kV circuit from Brookings Co-Lyon Co and Helena-Hampton for the existing CAPX Brookings-TC facility.
- c. Market congestion projects:
 - i. Forman 230/115 kV transformer upgrade
 - ii. De-bifurcation of High Bridge to Rogers Lake 115 kV line to give High Bridge additional outlet using existing transmission availability.

- iii. Fergus Falls-Morris 115 kV line upgrades
 - iv. Hoot Lake 115 kV substation upgrades
 - v. Canby-Granite Falls 115 kV line upgrade
 - vi. Xcel Energy and ITC Midwest constructed the Huntley-Wilmarth 345 kV Market Efficiency Project (MEP)
- d. Transmission System Reconfiguration: Xcel Energy implemented a process to study reconfiguration requests from outside entities. These requests are looked at to determine effectiveness, duration, and impact to the transmission system. Reliability is the primary determinant to whether a reconfiguration request is approved. MISO is working on setting up their process which Xcel Energy will participate in.
- e. The MTOs worked with MISO and other stakeholders to change how ERIS impacts are identified in the MISO DPP process. The current distribution factor (DF) is 20% and the proposal is to reduce the DF to 10% to ensure that more generation is not interconnected without necessary transmission facilities being built to deliver the energy to the system.
- f. Xcel Energy has initiated two projects, MN Energy Connection and King Connection, that are designed to utilize existing transmission access rights. The MISO interconnection queue has a significant number of new interconnection requests currently seeking to connect to a system that is already very congested. Reusing existing transmission rights through the MN Energy Connection and King Connection Projects allows Xcel Energy to interconnect additional MWs through its existing transmission rights, avoiding long delays often related to MISO queue interconnection studies.
- g. Xcel Energy confirmed the first system reconfiguration project in Southwest Minnesota to help alleviate congestion in the area. This request was reversed after several months due to a policy issue with MISO and SPP. In October MISO and SPP began coordinating their Day Ahead studies to recognize some of each other's flowgates which will help reduce SPP flows on the system. SPP previously did not recognize MISO flowgates and set a dispatch that could negatively impact MISO's dispatch.
- h. Grid North Partners' Tech Team is working with all MTOs to identify simple system upgrades (\leq \$1M cost) to improve transmission line ratings.
- i. MISO LRTP Tranche 1 projects in Minnesota are utilizing the existing 345 kV second circuit capabilities where possible which will increase the overall ability to transfer power across the system.

- j. Xcel Energy has initiated an internal study process to determine any transmission system reconfigurations on the underlying transmission system able to have a positive impact on the bulk transmission system and congestion.

Xcel Energy Transmission Operations takes both system reliability and curtailment and congestion cost impact into consideration when scheduling transmission outages.

- k. Xcel Energy has been monitoring congestion and curtailment on a weekly basis to find new issues as they arise and determine whether a permanent solution is warranted or if the congestion is related to temporary system conditions.

GRE is examining factors that have led to increased market congestion, where congestion is occurring and what we can do in the near-term to address present congestion. GRE is undertaking this congestion effort with the goal of positioning the grid for operational reliability and market efficiency.

In April 2021, GRE was asked to develop an operating guide associated with the Helena-Scott County 345 kV outage and the Chub Lake 345/115 kV TR1 being prone to congestion for loss of Chub Lake- Hampton 345 kV line. To alleviate this congestion, MISO will ask GRE to open a Chub Lake 345 kV breaker so the Helena-Chub Lake 345 kV/Chub Lake TR1 path will open for loss of Chub Lake-Hampton 345 kV line.

Pre-contingent, MISO monitored the Chub Lake TR1 loading for congestion and directed the opening of Chub Lake breaker accordingly. After the Chub Lake breaker was opened, congestion could occur on the following facilities for loss of Chub Lake-Hampton 345 kV.

- i. McLeod 230/115 kV TR1 (MISO transferred facility)
- ii. Traverse-Kelso 69 kV Arlington-Kelso 69 kV
- iii. Arlington-Carver County 69 kV
- iv. Hutchinson-Winthrop 69 kV

Xcel Energy monitored the 69 kV network for post-contingent overloads via Real Time Contingency Analysis. If sectionalizing the 69 kV network to address 69 kV congestion results in further pre- or post-contingent 69 kV ratings exceedances, Xcel Energy would request GRE to close Chub Lake breaker.

Lead Preparers:	Jason Standing (Xcel Energy)	Gordon Pietsch (GRE)
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Date:	June 29, 2023	

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MTOs Information Request No. 5
Docket No.: E999/M-21-111; E999/M-23-91
Response To: Minnesota Public Utilities Commission (MPUC)
Requestor: Charley Bruce, Craig Janezich
Date Received: May 12, 2023

Question:

Staff requests that the MTOs provide information on recent congestion problems, solutions to the problems implemented over the last 3 years, and potential mitigation alternatives still under consideration, including non-transmission alternatives.

Response:

See MTO's response to MPUC Information Request No. 4.

Lead Preparers:	Jason Standing (Xcel Energy)	Gordon Pietsch (GRE)
Title:	Manager	Director
Department:	Integrated Transmission Planning	Transmission Planning & Compliance
Telephone:	612-330-7768	763-445-5941
Date:	June 29, 2023	

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MTOs Information Request No. 6
Docket No.: E999/M-21-111; E999/M-23-91
Response To: Minnesota Public Utilities Commission (MPUC)
Requestor: Charley Bruce, Craig Janezich
Date Received: May 12, 2023

Question:

Staff requests that the MTOs provide comments on Minnesota area congestion problems and mitigation including non-transmission alternatives which may not be obvious from MISO MTEP planning.

Response:

The Grid North Partners (DPC, OTP, MP, MRES, CMMPA, RPU, SMMPA, WPPI, Xcel Energy and GRE) conducted a study to identify the root causes of congestion from July 2020 to July 2022. The study identified 94 facilities in and around Minnesota causing congestion in Minnesota. The second circuit on the Brookings Co-Lyon Co and Helena-Hampton transmission lines, along with five other projects to upgrade facilities are already submitted in MISO's MTEP to mitigate some of this congestion. The study identified 17 facilities able to be upgraded with relatively low cost (under \$1 million) and another five upgrades under \$10 million to mitigate congestion. Much of the congestion observed is due to high-wind weather patterns with much longer duration than the typical 4-hour batteries available as non-transmission alternatives.

Also see MTO's response to MPUC Information Request No. 4.

Lead Preparers:	Jason Standing (Xcel Energy)	Gordon Pietsch (GRE)
Title:	Manager	Director
Department:	Integrated Transmission Planning	Transmission Planning & Compliance
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Date:	June 29, 2023	

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MTOs Information Request No. 7
Docket No.: E999/M-21-111; E999/M-23-91
Response To: Minnesota Public Utilities Commission (MPUC)
Requestor: Charley Bruce, Craig Janezich
Date Received: May 12, 2023

Question:

Staff requests information about the status of MISO’s Long Range Transmission Planning (LRTP) and the MISO-Southwest Power Pool (SPP) Joint Targeted Interconnection Queue (JTIQ) processes.

For the LRTP, provide specific information on the status of the MISO-approved Tranche 1 projects and the Tranche 2 study.

Response:

MISO’s Board of Directors approved the LRTP Tranche 1 Portfolio in July of 2022.¹ The Tranche 1 Portfolio includes all or portions of three transmission line projects in Minnesota referred to as LRTP Nos. 2, 3, and 4. The following table summarizes the status of each of these LRTP Tranche 1 Projects:

LRTP #2 – Big Stone South – Alexandria – Big Oaks Transmission Project	
Docket No.	E002, E017, ET2, E015, ET10/CN-22-538
Applicants	Xcel Energy, along with Great River Energy, Minnesota Power, Otter Tail Power Company and Western Minnesota Municipal Power Agency
Description	One new 345 kV transmission line between Big Stone City, South Dakota, and Sherburne County, Minnesota which will be comprised of two segments: <ul style="list-style-type: none"> The western segment will run from the existing Big Stone South Substation near Big Stone City, South Dakota to the existing

¹ <https://www.misoenergy.org/planning/transmission-planning/long-range-transmission-planning/>

	<p>Alexandria Substation near Alexandria, Minnesota (Western Segment); and</p> <ul style="list-style-type: none"> • The eastern segment will continue on from the existing Alexandria Substation to a new Big Oaks Substation in Sherburne County, Minnesota (Eastern Segment).
Application Timing	<p>Certificate of Need Quarter 3 2023</p> <p>Eastern Route Permit Quarter 3 2023</p> <p>Western Route Permit Quarter 4 2024</p>
Proposed ISD	June 2030

LRTP #3 – Northland Reliability Project	
Docket No.	E015, ET2/CN-22-416
Applicants	Minnesota Power and Great River Energy
Description	<p>The Applicants propose to construct the Iron Range – Benton County – Big Oaks transmission line, which consists of two major segments:</p> <ul style="list-style-type: none"> • Segment 1: construction of a new, approximately 140-mile long, double-circuit 345 kilovolt (kV) transmission line connecting the existing Iron Range Substation, a new Riverton Series Compensation Station (described below), and the existing Benton County Substation, and generally located near existing transmission line corridors; and Segment 2: replacement of two existing transmission lines. a. Replace approximately 20-mile 230 kV line with two 345 kV circuits from the Benton County Substation to the new Big Oaks Substation along existing transmission corridors on double circuit 345 kV structures; and b. Replace an approximately 20-mile 345 kV line from the Benton County Substation to the existing Sherco Substation in Sherburne County along existing transmission corridors using double circuit 345 kV structures. <p>The Northland Reliability Project will also involve the following improvements to the power grid:</p> <ul style="list-style-type: none"> • Expansion of the existing Iron Range Substation, located near Grand Rapids, and expansion of the existing Benton County Substation, located near St. Cloud, and reconfiguring existing transmission lines at the Iron Range and Benton County substations; and

	<ul style="list-style-type: none"> Construction of a new series compensation station at or near the existing Riverton Substation and reconfiguring existing transmission lines in the Riverton area.
Application Timing	August 2023
Proposed ISD	June 2030

LRTP #4 Mankato to Mississippi River 345 kV Transmission Project	
Docket No.	E002/CN-22-532
Applicants	Xcel Energy, along with Dairyland Power Cooperative, Southern Minnesota Municipal Power Agency and the City of Rochester, Minnesota
Description	<p>A new 345 kV transmission line between the Wilmarth Substation in Mankato, Minnesota and the Mississippi River and will be comprised of three segments:</p> <ul style="list-style-type: none"> Wilmarth to West Faribault – a new 345 kV transmission line between the existing Wilmarth Substation and the West Faribault Substation. West Faribault to North Rochester – a new 345 kV transmission line between the existing West Faribault Substation and the existing North Rochester Substation. North Rochester to Mississippi River – a new 345 kV transmission line between the existing North Rochester Substation and the Mississippi River. <p>The Project also includes the relocation and rebuilding of the existing 161 kV transmission line between the existing North Rochester Substation and the existing Chester Substation.</p>
Application Timing	Fourth Quarter 2023
Proposed ISD	June 2028

Additional detail regarding each of these Tranche 1 LRTPs can be found in the dockets referenced in the tables above.

MTO utilities and many other stakeholders are also engaged with MISO on the development of the LRTP Tranche 2 Portfolio. MISO anticipates that Tranche 2 will be completed for Board approval in the first half of 2024.² MISO is currently completing a refresh of its Future 2A. Models for Tranche 2 are expected to be completed in the third quarter of 2023. Workshops are planned throughout 2023-24 to provide a forum for discussions regarding study work and a draft portfolio is expected to be available for stakeholder review in early 2024.³

MISO and SPP released the completed JTIQ study in March of 2022.⁴ The study identified a seven-project JTIQ Portfolio with a planning level estimated cost of \$1.65 billion. The recommended JTIQ Portfolio is expected to fully address the set of transmission constraints evaluated in the JTIQ Study as being significant barriers to the development of new generation along the SPP-MISO seam. The Planning Advisory Committee within MISO presented the JTIQ draft tariff additions and revisions on April 26, 2023, and comments were due by May 10, 2023. MISO and SPP are targeting filings with FERC for approval of the tariff and related interconnection agreements in Q3 of 2023 and MISO and SPP Board approvals in December of 2023 or Q1 of 2024.⁵

Lead Preparers:	Jason Standing (Xcel Energy)	Gordon Pietsch (GRE)
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Date:	June 29, 2023	

²<https://cdn.misoenergy.org/20230127%20LRTP%20Workshop%20Item%2002%20Overview%20and%20Status627638.pdf>

³<https://cdn.misoenergy.org/MISO%20Long-Range%20Transmission%20Planning%20LRTP%20Tranche%202%20FAQs627648.pdf>

⁴<https://www.spp.org/engineering/spp-miso-jtiq/>

⁵<https://cdn.misoenergy.org/20230426%20PAC%20Item%2006c%20JTIQ%20Update%20and%20Draft%20Tariff%20Presentation628664.pdf>

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MTOs Information Request No. 8
Docket No.: E999/M-21-111; E999/M-23-91
Response To: Minnesota Public Utilities Commission (MPUC)
Requestor: Charley Bruce, Craig Janezich
Date Received: May 12, 2023

Question:

Staff requests as assessment of whether the LRTP and JTIQ processes are progressing and that the identified upgrades will be available in a timely manner.

Response:

See response to MPUC Information Request No. 7. The MTO utilities are working with MISO to ensure these projects are approved in a timely manner, but the nature of cost allocation changes increases uncertainty in approval timing.

With respect to LRTP processes, the MTO utilities are progressing on a timeline to place the projects in service by the MISO-approved dates. We are continually analyzing project timelines to leverage any efficiencies that may be available.

Lead Preparers:	Jason Standing (Xcel Energy)	Gordon Pietsch (GRE)
Title:	Manager	Director
Department:	Integrated Transmission Planning	Transmission Planning & Compliance
Telephone:	612-330-7768	763-445-5941
Date:	June 29, 2023	

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MTOs	Information Request No.	9
Docket No.:	E999/M-21-111; E999/M-23-91	
Response To:	Minnesota Public Utilities Commission (MPUC)	
Requestor:	Charley Bruce, Craig Janezich	
Date Received:	May 12, 2023	

Question:

Staff requests a discussion of the steps taken by utilities to encourage MISO to keep the LRTP and JTIQ processes on-track for a timely decision by MISO's board of directors.

Response:

Each of the MTO utilities that are members of MISO regularly participate in MISO workshops and planning activities to support the timeline completion of the LRTP and JTIQ processes. These efforts include, but are not limited to, providing timely responses to information requests and carefully reviewing modeling assumptions to ensure they are as accurate as possible.

For example, Xcel Energy is a regular participant in open stakeholder meetings, as well as individual meetings with MISO staff and leadership to underscore the urgency needed in these efforts. To better assist MISO, Xcel Energy has increased the rigor of feedback and provided detailed information on model building as well as early routing and siting impacts to ensure efforts to advance JTIQ and LRTP Tranche 2 aren't subjected to excessive iteration in the stakeholder process. Xcel Energy has also increased coordination with our neighboring utilities to better understand the positions of each company and address any misalignment prior to MISO's project submission and alternatives request.

L&O and EREPC are members of SPP's Zone 19 (Upper Missouri Zone or "UMZ") and participates in the applicable UMZ meetings. Due to their location along the SPP-MISO seam, L&O and EREPC promote SPP-MISO coordination and proposed projects & improvements along the seam. This includes helping to keep the JTIQ process moving forward.

Lead Preparers:	Jason Standing (Xcel Energy)	Gordon Pietsch (GRE)
Title:	Manager	Director
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Date:	June 29, 2023	

Xcel's Approved 2020-2034 Integrated Resource Plan

December 2022

Overview

Xcel Energy's most recent Integrated Resource Plan was approved by the Minnesota Public Utilities Commission in April 2022, prescribing the size, type, and timing of generation resources the company is to acquire or construct over the next 15 years in order to satisfy its customers' demand for electricity. Among the plan's approved activities are the closure of Xcel's last remaining coal plants serving Minnesota by 2030 and the pursuit of a ten-year extension of the company's federal operating license for its nuclear generating plant at Monticello, which is scheduled to expire in 2030.

This publication briefly describes Xcel's integrated resource plan and the Minnesota Public Utility Commission's order modifying and approving the plan.

Last Xcel Coal Plant to Close in 2030

On April 15, 2022, the Minnesota Public Utilities Commission (PUC) issued a written order approving Xcel Energy's 2020-2034 Integrated Resource Plan (IRP),¹ which maps out the resources the company will construct or acquire in order to meet the electricity demand of its Minnesota customers over the next 15 years. Xcel is the state's largest electric utility, providing power to about half the state's residents. It serves over 500 communities located south of St. Cloud and along the North Dakota border near Moorhead.

The plan Xcel submitted to the commission proposed to retire all the company's remaining coal-fired facilities by 2030. As recently as 20 years ago, coal facilities constituted approximately two-thirds of Xcel's total generating capacity.

Under the plan, about 2,400 megawatts (MW) of coal-based generation is to be retired, accounting for about one-quarter of the company's current electric generating capacity. These facilities include the Allen S. King plant in Bayport (511 MW), scheduled for closure in 2028, and Sherburne County (Sherco) Unit 3 in Becker (517 MW) slated to close in 2030.² As the

¹ Minnesota Public Utilities Commission, *In the Matter of the 2020-2034 Upper Midwest Integrated Resource Plan of Northern States Power Company d/b/a Xcel Energy, Order Approving Plan With Modifications and Establishing Requirements For Future Filings*, Docket No. E-002/RP-19-368, April 15, 2022, <https://www.edockets.state.mn.us/edockets/searchDocuments.do?method=showPoup&documentId={202C2F80-0000-C11A-BA52-EC8AB5636CD4}&documentTitle=20224-184828-01>. Hereafter referred to as "Order."

² Under Xcel's previous IRP, the company's Sherburne County Units 1 and 2 (each 680 MW) were approved for retirement in 2026 and 2023, respectively.

commission noted, “[M]ultiple resource plan scenarios demonstrated that retiring the units would be a cost-effective option.”³ The commission projected that implementing the plan would make 81 percent of Xcel’s generation resources carbon-free by 2032 and reduce Xcel’s greenhouse gas emissions by 86 percent relative to 2005 levels.

The IRP Process

[Minnesota Statutes, section 216B.2422](#), requires utilities serving more than 10,000 electric customers and having a capacity greater than 100 megawatts to submit IRPs to the PUC approximately every two years for review and approval. A utility submits its “preferred plan” based on output from mathematical models that forecast future electricity demand in the utility’s service area and the cost and other impacts of various supply scenarios to meet it. The Minnesota Department of Commerce and the Office of the Attorney General formally intervene in the commission’s review process, commenting on the utility’s plan and presenting their own analysis and recommendations, as do environmental and energy advocacy organizations, cities and counties, utility customers, labor organizations, members of the public, and others. More than 70 organizations participated in Xcel’s recent IRP. All written submittals to the docket (over 2,300 documents) are subject to review and comment by other parties.

In addition, five public hearings on Xcel’s proposed plan were held in four different cities, drawing 323 attendees, 104 of whom delivered oral testimony; 47 written comments were filed at these meetings.⁴

All information gathered during the process is reviewed by the commission, which, under its rules, is required to consider the following factors in making its decisions.

“Resource options and resource plans must be evaluated on their ability to:

- A. maintain or improve the adequacy and reliability of utility service;
- B. keep the customers' bills and the utility's rates as low as practicable, given regulatory and other constraints;
- C. minimize adverse socioeconomic effects and adverse effects upon the environment;
- D. enhance the utility's ability to respond to changes in the financial, social, and technological factors affecting its operations; and
- E. limit the risk of adverse effects on the utility and its customers from financial, social, and technological factors that the utility cannot control.”⁵

³ *Order*, p. 13.

⁴ State of Minnesota, Office of Administrative Hearings, *In the Matter of the 2020-2034 Upper Midwest Integrated Resource Plan of Northern States Power Company d/b/a Xcel Energy, Report Summarizing Public Meetings*, OAH-2500-36249, MPUC E-002/RP19-368, December 18, 2019, <https://www.edockets.state.mn.us/edockets/searchDocuments.do?method=showPoup&documentId={80891E6F-0000-C919-95DF-497764814957}&documentTitle=201912-158455-01>.

⁵ [Minnesota Rules, chapter 7843.0500](#), subpart 3.

Xcel submitted its initial plan to the commission on July 1, 2019. A supplement plan using a different computer model was filed a year later, and a revised alternate plan was submitted on June 25, 2021, incorporating into the analysis approximately 1,150 MW of generating capacity the company added to its portfolio after filing the supplement plan. The subsequent plans were modified to address issues raised by other parties to the proceeding.

The Commission's Order

While elements of the commission's order scheduled for implementation towards the end of the plan's timeline are subject to revision in future IRPs, those slated to occur within five years of the order are deemed to be part of the utility's current "action plan."

Listed below are highlights of the commission's order:⁶

- Xcel will retire the King plant in 2028 and Sherco Unit 3 in 2030.
- Each year through 2034, Xcel will save at least 780 gigawatt-hours of electricity through energy efficiency, compared with 444 gigawatt-hours under the commission's previous IRP order. (One gigawatt-hour is equal to 1,000 megawatt-hours)
- Xcel may continue to pursue a ten-year extension of the operating license for its nuclear generating plant at Monticello, which expires in 2030, at the federal Nuclear Regulatory Commission.
- By 2026, Xcel will acquire:
 - at least 720 MW of company-owned solar generation that can utilize the interconnection capacity made available by the retirement of Sherco Unit 2 in 2023 (this may include the 460 MW solar plant to be located at the Sherco site that was approved by the commission in September 2022); and
 - an additional 600 MW of solar resources at any location.
- Xcel will seek a Certificate of Need from the commission to build two high voltage transmission lines from the retiring King and Sherco facilities to connect to the regional grid operated by the Midcontinent Independent System Operator. Xcel may own these lines and any renewable resources connected to them, up to the company's current interconnection capacity (600 MW at the King plant and 2,000 MW at Sherco). Any additional capacity added that exceeds these levels must be open to non-Xcel resources.
- Between 2027 and 2029, "it is more likely than not" that Xcel will need an additional 800 MW of firm dispatchable resources at a location to be determined.
- Xcel has demonstrated a need between 2027 and 2032 for an additional 2,150 MW from a combination of solar, wind, and energy storage.

⁶ *Order*, pp. 30-36.

- Xcel has demonstrated a need between 2027 and 2032 for an additional 600 MW of company-owned solar and/or storage capacity to fully utilize the capacity of the current King interconnection and future King transmission line.
- Xcel’s next resource plan, due February 1, 2024, shall:
 - improve forecasts of the adoption rate of electric vehicles, electric space and water heating, and other electrification end uses;
 - include a deeper analysis of energy storage options; and
 - include an analysis of rate and bill impacts for residential, commercial, and industrial classes.



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November 26, 2023

Will Seuffert
Executive Secretary
Public Utilities Commission
121 – 7th Place East, Suite 350
St. Paul, MN 55101

RE: LATE FILED Completeness Comment
Biennial Transmission Projects Plan - PUC Docket M-23-91

Dear Mr. Seuffert:

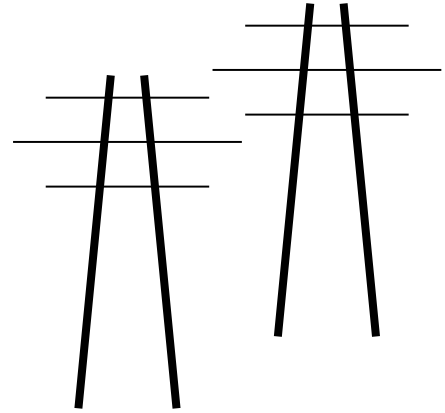
This is an admittedly LATE FILED completeness comment – I’ve not been keeping up lately, and do ask that this be considered as the Commission considers completeness of the Biennial Transmission Projects Report.

Overall, it’s clear that the utilities rely on MISO transmission planning for its need claims, planning which is market based. All such references to MISO “approval” should be stricken from this Report, as this is not a demonstration of need, but of marketing plans.

As to need, it’s good to see the NERC Long Term Reliability Assessment attached. This NERC report is relevant to need, particularly its consideration of the potential generation changes and line-up of transmission. Not enough consideration is given to the closing of coal plants and the significant transmission capacity that will free up. Pay particular attention to the reserve margins. We’ve been told repeatedly that transmission build-out will decrease needed reserve margin. How’s that working? If so, what’s the impact on “need” for the massive MISO Tranche 1 build-out? When claiming a 1,300 MW shortfall (LTRA p. 9), does the NERC LTRA account for/consider Xcel’s 1,500 MW of excess capacity? From [Xcel’s 2022 SEC 10-K](#) filing):

MISO Capacity Credits

The NSP System offered 1,500 MW of excess capacity into the MISO planning resource auction for June 2022 through May 2023. Due to a projected overall capacity shortfall in the MISO region, the 1,500 MWs offered cleared the auction at maximum pricing, generating revenues of approximately \$90 million in 2022, with approximately \$60 million expected in 2023. These amounts will primarily be used to mitigate customer rate increases or returned through earnings sharing or other mechanisms.



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The NERC LTRA shows that LOLE projection is safely less than one hour/year. (LTRA, p. 9)

The Biennial Transmission Plan should address peak demand and impact on planning, as transmission, and alternatives to transmission, must be developed based on peak, and reduction in peak through shifting demand. The NERC Report shows this reduction in load “growth,” and the transmission plan should address Minnesota and MISO specific impacts and considerations of the significantly decreased peak demand projected since the bizarre CapX 2020 projection of 2.49% circa 2006. See NERC LTRA p. 20; see also Xcel’s annual SEC 10-Ks for peak demand.

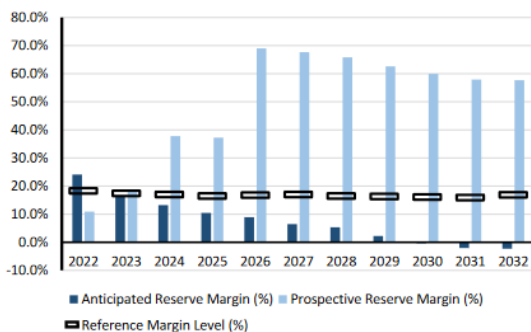


Figure 19: The 10-Year Net Energy to Load Growth and Rate Projection Trends

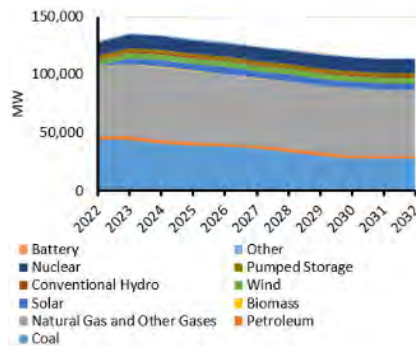
Another repeated point which should be addressed are those projects utilizing the “Big Oaks” new substation, near Sherco. Noting that the Big Stone South – Alexandria – Big Oaks line is anchored near Sherco, this calls into question the “need” for the \$1 billion dollar Lyon County to substations at or near Sherco, which Xcel desire to retain its transmission rights. See e.g. p. 121-122. Isn’t the Big Stone South – Big Oaks enough to preserve Xcel’s transmission rights? Has this even been considered? The Biennial Transmission Plan does not provide sufficient information.

The NERC LTRA shows that looking at existing and projected generation there’s adequate generation to go around, and that means it’s a matter of siting, not a reason for new transmission:

Demand, Resources, and Reserve Margins (MW)										
Quantity	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Internal Demand	124,950	126,091	126,212	126,298	126,631	126,965	127,240	127,652	128,320	128,317
Demand Response	6,158	6,189	6,116	6,130	6,131	6,051	6,052	6,054	6,050	6,017
Net Internal Demand	118,792	119,902	120,096	120,168	120,500	120,914	121,188	121,599	122,269	122,300
Additions: Tier 1	6,605	8,253	8,311	8,311	8,311	8,311	8,311	8,311	8,311	8,311
Additions: Tier 2	2,322	30,796	35,517	76,576	78,071	78,096	78,096	78,096	78,096	78,096
Additions: Tier 3	2,193	3,504	5,501	6,055	8,581	9,331	10,538	11,621	12,226	12,409
Net Firm Capacity Transfers	1,593	1,598	767	767	663	593	598	493	493	155
Existing-Certain and Net Firm Transfers	131,538	127,506	124,353	122,572	119,986	119,034	115,593	112,865	111,440	111,204
Anticipated Reserve Margin (%)	16.3%	13.2%	10.5%	8.9%	6.5%	5.3%	2.2%	-0.3%	-2.1%	-2.3%
Prospective Reserve Margin (%)	18.2%	38.9%	40.0%	72.6%	71.3%	69.9%	66.7%	63.9%	61.8%	61.6%
Reference Margin Level (%)	17.4%	17.0%	16.5%	16.8%	17.0%	16.5%	16.3%	16.1%	15.9%	16.9%



Planning Reserve Margins



Existing and Tier 1 Resources

The Biennial Transmission Projects Report is incomplete to the extent that it does not address this dissonance of NERC LTRA's projected generation additions, extreme projected reserve margins, LOLE within acceptable level, with the utilities plan for yet another massive transmission build-out on the backs of ratepayers.

The Biennial Transmission Projects Report also lists OPGW replacement, and is incomplete as it does not address the need for replacements, whether as transmission control and/or as fiber leased to 3rd parties, or some other reason, nor does it address revenue provided by OPGW and how rates will be adjusted for lease and other OPGW revenue. OPGW is listed as component of seven projects:

- 2023-NE-N2 – Minnesota Power, p. 99
- 2023-TC-N21 – Xcel, p. 155
- 2023-TC-N28 – Xcel, p. 159
- 2023-TC-N30 – Xcel, p. 160
- 2023-SW-N5 – Xcel, p. 173 & 182
- 2023-SE-N2 – Xcel, p. 193
- 2023-SE-N4 – Xcel, p. 195

The Biennial Transmission Projects Report is incomplete as it notes the “Minnesota Energy Connection” project:

The Minnesota Energy Connection would extend from the Sherco Power Plant in Sherburn County to somewhere in Lyon County. The planned line will carry renewable generation back Sherco Plant as part of the renewable repowering effort.

Biennial Transmission Projects Report, p. 36.

These two sentences are conflicting, stating in the first that the MEC would extend “from” the Sherco Power Plant, and in the second, that it will “carry renewable generation back Sherco Plant (sic)”... The Minnesota Energy Connection is not about “renewable energy,” but is obviously, as stated by Xcel, an effort to preserve its transmission interconnection rights. With the plan of the Big Stone-Alexandria-Big Oak line, why propose another, particularly one that has no justification other than Xcel's economic interest. The Biennial Transmission Projects Report is incomplete without additional information on Xcel's plan (see e.g. PUC Dockets CN-22-131' FL-22-132; M-23-342, etc.)

This project is also referenced on p. 227, together with a similar scheme for the King Plant:

Xcel Energy initiated two projects, MN Energy Connection and King Connection, which are designed to utilize existing transmission access rights. The MISO interconnection queue has a significant number of new interconnection requests currently seeking to connect to a system that is already very congested. Reusing existing transmission rights through the MN Energy Connection and King Connection Projects allows Xcel Energy to interconnect additional MWs through its existing transmission rights, avoiding long delays often related to MISO queue

interconnection studies.

Biennial Transmission Projects Report, p. 227. Neither of these projects were included in the 2021 Biennial Transmission Projects Report. These large transmission projects of Xcel are not included in the substantive regional sections of the 2023 report, and only mentioned in the 2023 Biennial Transmission Projects Report as an afterthought at the end. The Biennial Transmission Projects Report is incomplete as it does not provide rationale or support for these projects. Given the massive cost to be inflicted on ratepayers and impacts of eminent domain and environmental impacts, if Xcel has its way, there must be disclosure in this transmission plan of Xcel's plans – and consideration of the impacts of Xcel's plans and “need” on transmission needs across Minnesota and the region. These projects are not part of any of the MISO Tranche economic/marketing reports thus far (noting that even in the MISO MTEPs, the “benefits” are to the transmission owners, and not ratepayers or society at large!).

Also, as an afterthought, the goal of bulk power transfer across the system is clearly stated:

- MISO LRTP Tranche 1 projects in Minnesota utilize existing 345 kV second circuit capabilities where possible, which will increase the overall ability to transfer power across the system.
- Xcel Energy initiated an internal study process to determine any transmission system reconfigurations on the underlying transmission system able to have a positive impact on the bulk transmission system and congestion. Xcel Energy Transmission Operations factor both system reliability, curtailment, and congestion when considering/scheduling transmission outages.

Id. The disingenuous nature of the plans to retain Sherco and King interconnection rights for Xcel needs to be thoroughly exposed and notice provided to landowners and ratepayers of the dollar amounts at risk (the value of these interconnection rights) and deserves far more than an afterthought at the end of the Biennial Transmission Projects Report. The public interest demands assurance that these projects that are planned to preserve Xcel's interest are not foisted on ratepayers and landowners. This plan of Xcel's is offensive beyond belief.

Thanks for our consideration of this LATE FILED Comment.

Very truly yours,



Carol A. Overland
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