BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

Katie J. Sieben	Chair
Valerie Means	Commissioner
Matthew Schuerger	Commissioner
Joseph K. Sullivan	Commissioner
John A. Tuma	Commissioner

Clare Rajala Vatalaro
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SERVICE DATE: November 9, 2022

DOCKET NO. E-015/M-22-163;
E-017/M-22-159;
E-002/M-22-162

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In the Matter of Minnesota Power's, Otter Tail Power Company's, and Xcel Energy's 2021 Annual Safety, Reliability and Service Quality Report and Proposed System Average Interruption Frequency Index (SAIFI), System Average Interruption Duration Index (SAIDI), and Customer Average Interruption Duration Index (CAIDI) Reliability Standards for 2022

The above-entitled matter was considered by the Commission on November 3, 2022, and the following disposition made:

1. **Accepted Otter Tail Power, Minnesota Power, and Xcel Energy's 2021 Safety, Reliability, and Service Quality reports.**

2. **Set Minnesota Power's 2022 statewide Reliability Standard at the IEEE benchmarking 2nd Quartile for medium utilities. Set Minnesota Power's work center reliability standards at the IEEE benchmarking 2nd quartile for small utilities. Require a supplemental filing to Minnesota Power's 2022 SQSR report 30 days after IEEE publishes the 2022 benchmarking results, with an explanation for any standards the utility did not meet.**

3. **Set Otter Tail Power's 2022 statewide Reliability Standard at the IEEE benchmarking 2nd Quartile for medium utilities. Set Otter Tail's work center reliability standards at the IEEE benchmarking 2nd quartile for medium utilities. Require a supplemental filing to Otter Tail Power's 2022 SQSR report 30 days after IEEE publishes the 2022 benchmarking results, with an explanation for any standards the utility did not meet.**

4. **Set Xcel Energy's 2022 statewide Reliability Standard at the IEEE benchmarking 2nd Quartile for large utilities. Set Xcel's Southeast and Northwest work center reliability standards at the IEEE benchmarking 2nd quartile for medium utilities and Xcel's Metro East and Metro West work center reliability center standards at the IEEE benchmarking 2nd quartile for large utilities. Require a supplemental filing to Xcel Energy's 2022 SQSR report 30 days after IEEE publishes the 2022 benchmarking results, with an explanation for any standards the utility did not meet.**

5. **Initiated a work group to simplify Xcel Energy' SQSR reporting requirements. The workshop shall file recommendations or a progress update with the 2023 SQSR report.**

6. **Required Xcel Energy to provide, beginning with its April 1, 2023 service quality filing, an additional data set that reports discreet meters unread for 6-12 months and 12+ months, with a single meter listed in the longest appropriate category only, in Xcel Energy's reporting under MN Rules Section 7826.1400. To the extent possible, include historic data in this format as well, with the past five years being optimal.**

7. **Required Xcel Energy to document response duration in days, beginning from the date of initial customer contact to the date of Company reply, for inquiries, complaints, or disputes related to DERs and/or the interconnection process that are received through Xcel's call center, email, or otherwise. Information shall be shared in a .xlsx format in the Company's 2023 service quality filing and in the temporary annual report in Docket No. E-999/CI-16-521.**

8. **Required Xcel Energy, Minnesota Power, and Otter Tail Power to each display, either directly or via a link to a PDF file, the utility's public facing summary, as shown in Attachment A, on the utility's website placed such that the summary is available to a website user after a single click away from the home page.**

9. **Required Minnesota Power to describe in its 2023 filing its efforts to recruit, hire and train new call center representatives if data for service in 2022 show that the Company has not answered 80 percent of calls either made to the business office during regular business hours or for service interruption within 20 seconds.**

10. **Required Minnesota Power to make a compliance filing, within 30 days of the issuance of this order in Docket No. E-0015/M-22-163 and in next years' service quality docket, which reports monthly average answer time and call duration for all calls offered to agents, Customer Care and Support Representatives or otherwise, in the Company's Call Center during business hours. Minnesota Power shall provide the data in spreadsheet (.xlsx) format and to the greatest extent practicable. Where the Company is not able to do so, it shall explain why.**

The Commission agrees with and adopts the recommendations of the Department of Commerce, which are attached and hereby incorporated into the Order.[1] This Order shall become effective immediately.

BY ORDER OF THE COMMISSION

Will Seuffert
Executive Secretary

To request this document in another format such as large print or audio, call 651.296.0406 (voice). Persons with a hearing or speech impairment may call using their preferred Telecommunications Relay Service or email consumer.puc@state.mn.us for assistance.

[1] The Commission will also take the actions described in ordering paragraphs 6–10 above, to which the parties did not object.

COMMERCE DEPARTMENT

June 2, 2022 **PUBLIC DOCUMENT**

Will Seuffert Executive Secretary
Minnesota Public Utilities Commission
121 7th Place East, Suite 350
St. Paul, Minnesota 55101-2147

RE: **PUBLIC Comments of the Minnesota Department of Commerce, Division of Energy Resources**
Docket No. E002/M-22-162

Dear Mr. Seuffert:

Attached are the **PUBLIC** comments of the Minnesota Department of Commerce, Division of Energy Resources (Department) in the following matter:

> 2021 *Annual Electric Service Quality Report* (Report) submitted by Northern States Power Company, d/b/a Xcel Energy (Xcel or the Company).

Xcel filed the Report on April 1, 2022.

The Department recommends the Minnesota Public Utilities Commission (Commission) accept the Company's 2021 Safety Report.

The Department also requests the Company provide information on the following topics in its Reply Comments:

- A comparison of JD Power survey results for 2020 and 2021.
- Explain the 2021 commercial class results for service installation times as compared to 2020.
- Additional information regarding the requirement in Order Point 10 of the Commission's March 2, 2022, Order in Docket No. E002/M-21-237 regarding information provided in the Company's 2021 Electric general rate case.
- A discussion of the drivers for the apparent decrease in the number of website visits and MyAccount and Mobile App Installation interactions as well as Email interactions between 2020 and 2021.
- The process for receiving reliability information in an electronic format as identified in the Commission's December 2, 2021, Order in Docket No. E002/M-21-237.

The Department also suggests the Commission consider initiating a work group to review and simplify the different reporting requirements included in the 14 or so Commission Orders that cover the information included in Xcel's Service Reliability and Service Quality Report.

As discussed in the attached Comments, the Department provides its responses to the Commission's April 13, 2022 Notice of Comments.

The Department will provide recommendations in Supplemental Comments after reviewing the Company's Reply Comments and the planned Supplemental Filing including the 2021 IEEE Benchmarking Results.

The Department is available to answer any questions the Commission may have in this matter.

Sincerely,

/s/ JOHN KUNDERT
Financial Analyst

JK/ja
Attachment

Before the Minnesota Public Utilities Commission

PUBLIC Comments of the Minnesota Department of Commerce Division of Energy Resources

Docket No. E002/M-22-162

I. INTRODUCTION

The Minnesota Department of Commerce, Energy Division (Department) appreciates the opportunity to provide comments regarding Northern States Power, d/b/a Xcel Energy's (Xcel, the Company) Annual Compliance with Annual Safety, Reliability, and Service Quality Metrics for 2021.

A. COMMISSION NOTICE AND TOPICS

In its Notice of Comment Period in this proceeding dated April 13, 2022, the Minnesota Public Utilities Commission (Commission) identified four topics that were addressed to the three rate-regulated investor-owned utilities (IOUs) are open for comment.

1. Should the Commission accept Minnesota Power's, Otter Tail Power's, and Xcel Energy's 2021 Safety, Reliability, and Service Quality Metrics reports?
2. Are the utilities' reports consistent with recent Orders and Minnesota Rules 7826 on Electric Utility Standards?
3. At what level should the Commission set the utilities' 2022 Reliability Standards?
4. Are there other issues or concerns related to this matter?

B. PROCEDURAL CONTEXT

Minnesota Rules 7826 were developed as a means for the Commission to establish safety, reliability, and service quality standards for utilities "engaged in the retail distribution of electric service to the public" and to monitor their performance as measured against those standards. The rules set forth three main annual reporting requirements:

- The annual safety report (Minnesota Rules 7826.0400).
- The annual reliability report (Minnesota Rules 7826.0500, subp. 1 and 7826.0600, subp. 1); and
- The annual service quality report (Minnesota Rules 7826.1300).

In addition to the rule requirements, the Commission requested additional information in its Orders in various dockets. The Department will respond to the various reporting requirements by Order chronologically.

On April 1, 2022, Xcel filed a petition (Annual Report, Report) to comply with Minnesota Rules 7826 and the Commission's Orders. In that filing, the Company asked the Commission to accept its annual report for 2021 and its proposed 2022 reliability standards.

II. ANALYSIS

The Department's analysis is structured as follows:

1. Section A: Department's response to the Commission's questions.
2. Section B contains our review of Xcel's Safety information under the Commission rules.
3. Section C contains the review of Xcel's Reliability information required by Commission Rules.
4. Section D contains our analysis of Xcel's Service Quality information required by Commission Rules.
5. Section E contains the analysis of information required by Commission Order for both service quality and reliability.

A. RESPONSE TO COMMISSION QUESTIONS

1. Should the Commission Accept Xcel's 2021 Safety, Reliability and Service Quality Reports?

The Department recommends the Commission accept the Company's Annual Safety report. The Department is awaiting additional information regarding the Service Quality and Reliability portions of Xcel's 2022 filing before making a recommendation regarding those aspects of the filing. The Company will be supplementing its petition sometime in the fall of 2022. That supplement will include reliability goals developed using the IEEE benchmarking methodology. The Department plans to file supplemental comments regarding its review soon after Xcel files that information.

2. Is Xcel's 2022 Annual Report consistent with recent Orders and Minnesota Rules 7826 on Electric Utility Standards?

Yes, the Department's review concludes the Company's report is consistent with the requirements listed in the Commission's question.

3. At what level should the Commission set Xcel's 2022 Reliability Standards?

The Commission adopted a new approach for calculating the Company's reliability goals for 2021. The basis for those goals is an annual benchmarking analysis performed by the Institute of Electrical and Electronic Engineers (IEEE) Distribution Reliability Group. The Department recommends the Commission continue the current process for Xcel's 2022 Reliability Standards.

4. Are there other issues or concerns related to this matter?

The Department does not have any additional concerns currently.

B. ANNUAL SAFETY REPORT

1. Summary of Minnesota Safety Standards

Minnesota Rules 7826.0400 requires the utility to file annual safety information including:

A. Summaries of all reports filed with the U.S. Occupational Safety and Health Administration and the Occupational Safety and Health Division of the Minnesota Department of Labor and Industry for the calendar year; and

B. A description of all incidents during the calendar year in which an injury requiring medical attention or property damage resulting in compensation occurred as a result of downed wires or other electrical system failures and all remedial action taken as a result of injuries or property damage.

Xcel provided summaries of 2021data requested by the U.S. Department of Labor. This information reflects safety information on a random selection of the Company's plants and is therefore not necessarily comparable year to year.

2. 2021 Safety Performance

Table 1 below summarizes Xcel's most recent and past reports regarding property damage claims.[1]

[1] Department's calculation based on data provided in Attachment A of the Report.

Table 1: Property Damage Reimbursement 2012 -2021

Year	Claims	Total Amount Paid
2012	88	$135,836.53
2013	110	$184,083.70
2014	92	$137,610.16
2015	90	$185,584.32
2016	47	$111,289.98
2017	50	$135,844.06
2018	79	$147,754.08
2019	81	$1,203,379.30
2020	66	$274,049.00
2021	65	$178,419.30
10 Yr. Avg	77	$269,385.04
2021 Variance %	-16%	-34%

The number of claims in 2021 were 16% below the 10-year average. The amount paid in claims in 2021 was 34% below the 10-year average. The amount paid in 2019 was unusually high due to three large claims paid that year.

Based on its review of Xcel's 2021 Safety Report, the Department concludes the Company fulfilled the requirements of Minnesota Rules 7826.0400.

C. ANNUAL SERVICE QUALITY REPORT

Minnesota Rules 7826.1300 requires each utility to file the following information on or before April 1 of each year:[2]

- Meter Reading Performance (7826.1400).
- Involuntary Disconnection (7826.1500).
- Service Extension Request Response Time (7826.1600).
- Call Center Response Time (7826.1700).
- Emergency Medical Accounts Status (7826.1800).
- Customer Deposits (7826.1900).
- Customer Complaints(7826.2000).

[2] The Department notes that the Company files combined electric and gas service quality metrics when appropriate (*e.g.*, call center response time, meter reading statistics).

1. Meter Reading Performance

The following information is required for reporting on meter reading performance by customer class:

A. the number and percentage of customer meters read by utility personnel.
B. the number and percentage of customer meters self-read by customer.
C. the number and percentage of customer meters that have not been read by utility personnel for period of 6 to 12 months and for periods of longer than 12 months, and an explanation as to why they have not been read; and
D. data on monthly meter reading staffing levels by work center or geographical area.

An annual average 99.68% of customer meters were read by utility personnel and 0.0003% were read by the customer in 2021.[3] This represented a slight decrease in the percentage of customer meters read by utility personnel and a slight increase in the number of customer meters read by customers compared to 2020. These results are consistent with the ongoing difficulties the Company apparently experienced due to supply chain issues among other factors.

Table 2 below summarizes the number of meters not read by utility personnel for 6-12 months, according to Xcel's past annual and supplemental reports. To provide more context for the 2021 results, the Department also calculated the 10-year average by class and the variance in percentage of the 2021 results from that 10-year average.

Table 2: Meters Not Read for 6-12 Months 2012 - 2021[4]

Year	Residential	Commercial	Industrial	Other	Total
2012	3,967	1,232	248	106	5,553
2013	2,600	822	177	79	3,678
2014	5,237	1,178	260	123	6,798
2015	2,508	942	387	113	3,950
2016	2,268	772	167	75	3,282
2017	1,938	1,118	306	50	3,412
2018	2,313	1,222	489	50	4,074
2019	2,280	1,601	429	61	4,371
2020	1,794	953	386	13	3,146
2021	2,325	809	250	4	3,388
10 Yr. Average	2,723	1,065	310	67	4,165
2021 Variance	-15%	-24%	-19%	-94%	-19%

[3] The Department's calculations are based on data provided in Tables A and B, Attachment C of the Company's 2021 Report.
[4] Table C-1, Attachment C of the 2021 Report.

While the number of residential meters not read for 6 to 12 months increased significantly from 2020 in 2021, the 2021 figure was still 14% below the ten-year average for the residential class.

Table 3 below summarizes the number of meters not read by utility personnel for longer than 12 months, according to Xcel's past annual and supplemental reports.

Table 3: Meters Not Read for Longer than 12 Months 2012 – 2021[5]

Year	Residential	Commercial	Industrial	Other	Total
2012	661	450	112	89	1,312
2013	602	335	131	64	1,132
2014	620	304	92	68	1,084
2015	764	310	134	90	1,298
2016	551	240	109	63	963
2017	531	260	135	48	974
2018	580	481	283	44	1,388
2019	574	825	283	50	1,732
2020	773	684	371	40	1,868
2021	639	674	722	20	2,055
10 Yr. Average	630	456	237	58	1,381
2021 Variance	2%	48%	204%	-65%	49%

The results in Table 3 are not very good. The number of commercial meters not read for over a year increased 48%. The same percentage figure for the industrial class was a 204% increase. The Department will continue to monitor this situation in 2022. The Department hopes the 2022 figures are a significant improvement over the 2021 results.

Minnesota Rules 7826.1400(D) requires monthly data on meter-reading staffing levels, by work center or geographical area. Xcel provided information by work center and stated its current staffing levels are similar to 2020.[6]

The Department acknowledges Xcel fulfilled the requirements of Minnesota Rules 7826.1400.

2. Involuntary Disconnections

The following information is required for reporting on involuntary disconnection of service by customer class and calendar month:

[5] Table C-2, Attachment C of the 2021Report.

A. the number of customers who received disconnection notices.
B. the number of customers who sought cold weather rule (CWR) protection under Minnesota Statutes, sections 216B.096 and 216B.097, and the number who were granted cold weather rule protection.
C. the total number of customers whose service was disconnected involuntarily, and the number of these customers restored to service within 24 hours; and
D. the number of disconnected customers restored to service by entering into a payment plan.

In 2021, Xcel sent 357,851 disconnection notices to residential customers and 53,953 notices to commercial customers. The Commission ordered suspension of disconnections for residential customers facing financial hardship on August 13, 2020, in Docket No. E,G999/CI-20-375. The Commission then issued an Order on May 26, 2021, allowing for the resumption of disconnections on August 2, 2021. The information for 2020 and 2021 in Table 4 reflect those Commission actions.

A total of 73,027 residential customers sought and received Cold Weather Rule (CWR) protection. Xcel involuntarily disconnected a total of 8,602 residential customers and 135 commercial customers. A total of 3,466 residential customers, or 55%, were restored within 24 hours. The same numbers for the commercial class were 135, 25 and 19%. A total of 3,889 residential and 17 commercial customers had service restored upon entering a payment plan.

Table 4 (following page) summarizes residential customer disconnection statistics Xcel reported in its Annual Report.

The Department developed a three-year average for Table 4 given the change to the data in 2019 noted in footnote 7. While two of the three years included in the average were significantly affected by the COVID-19 pandemic, the average does provide some amount of context.

The number of customers receiving disconnection notices increased in 2021 compared to 2020 as did the number of customers disconnected involuntarily. The number of customers entering into a payment plan also increased significantly.

The Department acknowledges Xcel fulfilled the requirements of Minnesota Rules 7826.1500.

Table 4: Residential Customer Involuntary Disconnection Information 2012 - 2021

Year	Customers Receiving Disconnect Notice	Customers Seeking CWR Protection	Customers Granted CWR Protection	% Granted	Customers Disconnected Involuntarily	Customers Restored within 24 Hours	Customers Restored by Entering Payment Plan
2012	1,207,842	279,713	279,713	100%	27,132	11,010	1,047
2013	1,217,049	126,477	126,477	100%	23,493	9,221	882
2014	1,166,978	105,561	105,561	100%	25,532	10,283	1,250
2015	1,042,775	151,956	151,956	100%	26,756	11,556	1,201
2016	870,665	130,052	130,052	100%	20,574	7,698	1,512
2017	747,409	140,943	140,943	100%	19,212	6,564	1,251
2018	559,011	115,472	115,472	100%	17,337	6,586	1,506
2019[6]	521,548	80,713	80,713	100%	16,693	6,318	4,250
2020	222,803	58,225	58,225	100%	2,820	1,610	969
2021	357,851	80,143	80,143	100%	6,292	3,466	3,889
3-year avg.	367,401	73,027	73,027	100%	8,602	3,798	3,036
Var. %	-3%	10%	10%	NA	-27%	-9%	28%

3. Service Extension Requests

The following information is required for reporting on service extension request response times by customer class and calendar month:

A. the number of customers requesting service to a location not previously served by the utility and the intervals between the date service was installed and the later of the in-service date requested by the customer or the date the premises were ready for service; and

B. the number of customers requesting service to a location previously served by the utility, but not served at the time of the request, and the intervals between the date service was installed and the later of the in-service date requested by the customer or the date the premises were ready for service.

Xcel stated 212,410 customers requested service to a location previously served in 2021, and the Company responded to all requests by the next business day.[7] Xcel reported 5,346 residential and 218 commercial customers requested service to a location the Company had not previously served in 2021. The average interval between request/readiness date and installation date was 5.7 days for residential and 12.0 days for commercial customers.

[6] 2019, 2020 and 2021 figures represent Minnesota-only customers. Prior Years included North and South Dakota.

[7] 2021 Report, p. 8.

The Department looks for any trends in overall response times and inquires as needed. Response times for residential customers in 2021 were 15% lower than the four-year average from 2018 – 2021 while the number of residential installations was 18% higher. The results for commercial customers were not as encouraging . Response times for commercial customers in 2021 were 60% higher than the four-year average from 2018 – 2021 while the number of commercial installations was 47% lower. In last year's Annual Report, Xcel indicated the 2020 Report was the third reflecting service extension request times as tracked by its new Systems, Applications, Processes (SAP) work management system and 2020 was the year the Company improved its installation times. The Department requests Xcel explain the 2021 commercial class results for service installation times in its reply comments.

The Department acknowledges Xcel fulfilled the requirements of Minnesota Rules 7826.1600.

4. Call Center Response Times

The annual service quality report must include a detailed report on monthly call center response times, including calls to the business office and calls regarding service interruptions.

Minnesota Rules 7826.1200, subp. 1 requires utilities to answer 80% of calls made to the business office during regular business hours and 80 percent of all outage calls within 20 seconds. Minnesota Rules 7826.1700 requires utilities to provide information on call center response times and monthly information.

Xcel provided monthly call volume and response time information in Attachment I. In 2021, an average of 79.2% of calls to the Company were answered within 20 seconds.[8]

The Company assumes all calls handled by its Interactive Voice Response (IVR) system are answered within 20 seconds for both calls made during business hours and calls related to service interruptions. For outage calls handled by Xcel's Agents, an average of 51.3% were answered within 20 seconds in 2021. In 2019 and 2020 respectively, the same calculation resulted in 76.8% and 58.9%. The inclusion of Interactive Voice Response outage calls pushed the total outage call percentages for all three years (2019 through 2021) above the 80% threshold.

Xcel provided a lengthy explanation of its efforts to hire and retain call center employees during 2021. The upshot of that discussion is the Company attempted to transition its call center employees to remote work. Absenteeism was a significant issue in 2021 due to COVID. Staff turnover was another significant issue. The Company is attempting to remedy the situation.

[8] Department's calculations are based on data provided in Attachment F.

The Department acknowledges Xcel fulfilled the requirements of Minnesota Rules 7826.1200 and 7826.1700, subp. 1.

5. Emergency Medical Accounts

Reporting on emergency medical accounts must include the number of customers who requested medical account status under Minnesota Statutes, section 216B.098, subd. 5, the number of applications granted, the number of applications denied, and the reasons for each denial.

Xcel reported as of March 2022 1,977 Minnesota customers had requested and received Emergency Medical Account status.[9]

In 2021 a higher number of households requested Emergency Medical Account status than 2020, but a slightly lower percentage were granted this status (89.6%).

Table 5 below shows the historical numbers regarding Medical Accounts.

Table 5: Residential Customers Requesting Emergency Medical Account Status 2012 – 2021

Year	Requested Medical Acct. Status	Granted Medical Acct. Status	Percent Granted
2012	1,508	679	45.0%
2013	1,562	832	53.3%
2014	1,780	1,012	56.9%
2015	3,333	2,557	76.7%
2016	3,427	2,713	79.2%
2017	3,150	2,388	75.8%
2018	2,818	2,267	80.4%
2019	2,420	2,196	90.1%
2020	986	935	94.8%
2021	1,084	971	89.6%
10-year avg	2,207	1,655	75.0%
Variance %	-51%	-41%	

Xcel's numbers for 2021 were significantly lower than the 10-year average. The Company also noted it contacted potential participants with two mailings during 2021 within its service territory.

[9] This status must be requested and approved annually.

The Department acknowledges Xcel fulfilled the requirements of Minnesota Rules 7826.1800.

6. Customer Deposits

Reporting on customer deposits must include the number of customers who were required to make a deposit as a condition of receiving service.

Table 6 below summarizes the number of accounts for which Xcel reported required deposits. The Department notes the Company requests these deposits from residential customers who have filed for bankruptcy. The 2021 number of deposits required was 11% above the 10-year average.

Table 6: Customer Deposits Required 2012 – 2021

Year	Number of Deposits
2012	622
2013	652
2014	606
2015	561
2016	362
2017	314
2018	394
2019	486
2020	678
2021	583
10 -year Average	526
Variance %	11%

The Department acknowledges Xcel fulfilled the requirements of Minnesota Rules 7826.1900.

7. Customer Complaints

Reporting on customer complaints must include the following information by customer class and calendar month:

A. the number of complaints received.
B. the number and percentage of complaints alleging billing errors, inaccurate metering, wrongful disconnection, high bills, inadequate service, and the number involving service extension intervals, service restoration intervals, and any other identifiable subject matter involved in five percent or more of customer complaints.
C. the number and percentage of complaints resolved upon initial inquiry, within ten days, and longer than tendays.

D. the number and percentage of all complaints resolved by taking any of the following actions:

(1) taking the action, the customer requested; (2) taking an action the customer and the utility agree is an acceptable compromise; (3) providing the customer with information that demonstrates that the situation complained of is not reasonably within the control of the utility; or (4) refusing to take the action the customer requested; and

E. the number of complaints forwarded to the utility by the Commission's Consumer Affairs Office (CAO) for further investigation and action.

In 2021, Xcel reported the Company's Customer Advocate Group handled 484 complaints, 257 of which were forwarded by the CAO.[10] The Company provided data showing 10.7% of complaints Xcel's Customer Advocate Group handled in 2021 were resolved upon inquiry.[11] The most frequent complaint category was "inadequate service." Xcel reported 31.6% of these complaints in 2021 were resolved by taking the action the customer requested.[12]

Xcel also received 34,346 complaints in 2021 handled upon initial inquiry in the Company's Call Centers. Xcel reported approximately 96.38% of these complaints were resolved by taking the action the customer requested. The complaint category with the largest volume for all customers was "billing errors."

Xcel's report on customer complaints includes the required information. Table 7 contains a limited summary of Xcel's customer complaint history as received through the Company's Customer Advocate Group.

[10] Attachment C of the Report.
[11] Id.
[12] Id.

Table 7: Selected Summary of Customer Complaints[13]

Year	Number of Complaints	adequate Service	Wrongful Disconnect	Billing Error	Resolved Upon Initial Inquiry	Took Action Customer Requested
2010	693	44.90%	21.90%	18.20%	17.00%	29.10%
2011	627	49.10%	17.20%	16.70%	13.20%	28.20%
2012	613	53.50%	19.70%	17.30%	18.60%	27.41%
2013	745	55.80%	15.60%	13.80%	18.90%	38.26%
2014	770	53.20%	19.70%	14.80%	16.80%	51.30%
2015	789	52.50%	23.40%	13.30%	14.30%	29.50%
2016	547	52.10%	19.00%	14.60%	16.30%	32.70%
2017	572	53.50%	24.50%	10.50%	18.00%	27.10%
2018	664	58.10%	18.80%	11.60%	20.60%	26.70%
2019	756	59.70%	17.30%	11.10%	14.00%	26.70%
2020	430	57.20%	3.70%	16.30%	14.40%	35.8%
2021	484	56.61%	7.44%	16.53%	10.7%	31.6%

Given the selective nature of the information included in Table 7, the Department did not develop summary statistics.

The Department acknowledges Xcel fulfilled the requirements of Minnesota Rules 7826.2000.

D. ANNUAL SERVICE RELABILITY REPORT

Minnesota Rules 7826.0500 requires each utility to file an annual report with the following information:

1. reliability performance,
2. storm-normalization method,
3. action plan for remedying any failure to comply with the reliability standards,
4. bulk power supply interruptions,
5. major service interruptions,
6. circuit interruption data (identify worst performing circuit),
7. known instances in which nominal electric service voltages did not meet American National Standards Institute (ANSI) standards,
8. work center staffing levels, and
9. any other relevant information.

[13] Id.

1. Reliability Performance

Table 8 (following page) shows the Company's 2021 reliability performance compared with the goals the Commission set in Docket No. E002/M-20-406 using the historical Minnesota Rules-based calculation.

Shaded cells in Table 8 indicate reliability goals the Company did not meet, comparing 2021 actuals to 2020 goals. Thus, Xcel met 7 of the 12 reliability goals identified in the Minnesota Rules approach. This is notable improvement from the Company's 2020 reliability performance.

While the Department notes this comparison is not required, given the new benchmarking approach the Commission adopted in Docket No. E002/M-21-237, it does provide Commission staff, Commissioners, and other interested parties a point of reference for Xcel's actual 2021 reliability results compared to historical goals.

The Commission's current approach identifies the various IEEE calculated reliability benchmarks as the goals for Minnesota's three investor-owned utilities. Table 9 compares Xcel's 2021 reliability results with the IEEE 2020 benchmarking results.

Table 8: Xcel's 2021 Reliability Performance Compared with 2020 Goals Using Historical Method

Work Center	Metric	2021 Performance	2020 Goals
Minnesota	SAIDI[14]	88.83	NA
NA	SAIFI[15]	0.92	NA
	CAIDI[16]	96.33	NA
Metro East	SAIDI	82.00	89.95
	SAIFI	0.83	0.84
	CAIDI	98.41	106.91
Metro West	SAIDI	94.56	79.37
	SAIFI	1.05	0.79
	CAIDI	89.67	100.55
Northwest	SAIDI	93.42	87.11
	SAIFI	0.74	0.75
	CAIDI	126.13	115.72
Southeast	SAIDI	79.80	94.82
	SAIFI	0.76	0.76
	CAIDI	105.14	122.04

[14] SAIDI stands for System Average Interruption Duration Index.
[15] SAIFI stands for System Average Interruption Frequency Index.
[16] CAIDI stands for Customer Average Interruption Duration Index.

Table 9: 2021 Reliability Performance Compared to 2020 IEEE Results

Work Center	Metric	2021 Performance	2020 IEEE Goals
Minnesota	SAIDI	88.83	103
	SAIFI	0.92	1.06
	CAIDI	96.33	108

This ex-post 2020 comparison places Xcel's reliability efforts in a slightly better light when compared to the historical method. The Company would have met all three reliability goals identified.

While the IEEE 2020 results provide a useful proxy for the yet-to-be-calculated 2021 IEEE reliability results, the Department will provide additional comments after Xcel provides the 2021 IEEE benchmarking information later this year.

Based on its review of Xcel's 2021 system-wide reliability requirements reporting, the Department concludes the Company appears to have fulfilled the requirements of Minnesota Rules 7826.0500, subps. 1.A, 1.B, and 1.C.

2. Storm-Normalization Method

Xcel reported both normalized and non-normalized SAIDI, SAIFI, and CAIDI metrics in its filing, beginning on page 24.

As noted above, the Company stated it used the IEEE 1366 storm day threshold calculation procedures for its 2021 data. Using the previous five years of outage history for each region, Xcel identified the storm day threshold by:

- Calculating the daily SAIDI.
- Calculating the natural log of each daily SAIDI.
- Calculating the average and standard deviation of the natural logs.

A Major Event Day (MED) is one in which the outages met or exceeded the storm day threshold. Xcel reported its reliability data is normalized to account for major storms by removing outages that start on a MED.

The Department acknowledges Xcel fulfilled the requirements of Minnesota Rules 7826.0500, subp. 1.D.

3. Action Plan to Improve Reliability

Xcel provided a lengthy and detailed reliability analysis for each of the four work centers, including the following:

- Actual annual reliability factors by work center for the past five years.
- The top causes of customer interruptions in 2020.
- The incremental change in those different customer interruption drivers.
- An analysis of the different events and days that caused customer interruptions as well as the type of equipment that failed.

Attachment I of Xcel's filing reported on staffing and reliability for Xcel's Southeast Work Center. Attachment J of the filing included a description of Xcel's reliability management program development.

The information in Attachment I discussed the Company's efforts to improve system reliability in the Southeast Work Center, whereas Attachment J provided a broader perspective on Xcel's efforts to proactively manage its distribution network reliability.

The Department acknowledges Xcel fulfilled the requirements of Minnesota Rules 7826.0500, subp. 1.E.

4. Bulk Power Supply Interruptions

Xcel reported no generation outages on the Company's system that caused an interruption of service to firm electric customers in 2021. Xcel provided a table listing interruptions caused by transmission outages.[17] The table identifies the transmission line, date, time, duration, reasons for the interruption, comments, and remedial steps taken or planned.

The Department acknowledges Xcel fulfilled the requirements of Minnesota Rules 7826.0500, subp. 1.F.

5. Major Service Interruptions

Minnesota Rules 7826.0500, subp. 1.G. requires an electric utility to provide a "copy of each report filed under part 7826.0700." Minnesota Rules 7826.0700 requires an electric utility to "promptly inform the commission's Consumer Affairs Office (CAO) of any major service interruption occurring on the utility's system with certain information."

[17] See Attachment N of the filing.

The Commission's Order dated December 18, 2020, in Docket No. E002/M-20-406 varied the requirement in Minnesota Rules 7826.0500, subp. 1.G and ordered Xcel to file a summary table in an attachment.[18]

In 2021, Xcel reported 231 outages on its system met the definition of "major service interruption." The Company only had 264 of these types of outages in 2021. Table 10 below shows the number of outages the Company did not report to the CAO and the total number of major service interruptions Xcel reported.

Table 10: Major Service Interruptions Not Reported to the Minnesota Public Utilities Commission's Consumer Affairs Office 2012 -2021

Year	Unreported Major Service Interruptions	Number of Major Service Interruptions	Percent Unreported
2012	5	252	2%
2013	2	605	<1%
2014	11	233	5%
2015	27	259	10%
2016	12	310	4%
2017	6	154	4%
2018	6	243	2%
2019	5	214	2%
2020	9	264	3%
2021	13	231	6%
10-yr Avg.	10	277	3%
Variance	30%	-17%	

The Company noted each of the 13 unreported major service interruptions were due to human error. The 2021 results suggest the 13 unreported outages were above the ten-year average while the number of major outages was a bit below the ten-year average.

Xcel reported no major service interruptions in which ten percent or more of its Minnesota customers were without service for 24 hours or more in 2021.

The Department acknowledges Xcel fulfilled the requirements of Minnesota Rules 7826.0700.

[18] See Attachment G of the filing.

6. Worst Performing Circuit

Attachment M to the filing provides information regarding this requirement by work center. The Company also included information in Attachment M related to operational steps Xcel is taking regarding the feeder's future reliability.

The Department acknowledges Xcel fulfilled the requirements of Minnesota Rules 7826.0500, subp. 1.H.

7. Compliance with ANSI Voltage Standards

Xcel reported it conducted 212 voltage investigations in 2020. After investigation, the Company found approximately 17% of these instances were caused by a specific voltage problem. In cases where the Company finds that the voltage is not within the acceptable range, actions are taken such as swapping transformers, upgrading transformers, or checking capacitor banks.

The Department acknowledges Xcel fulfilled the requirements of Minnesota Rules 7826.0500, subp. 1.I.

8. Work Center Staffing Levels

Xcel reported its 2020 staffing levels by work center. Table 11 below contains this information for the past ten years. The Company's historical staffing level increased by four employees from 2020 and is 2% above the ten-year average.

Table 11: Xcel's Historical Work Center Staffing Levels 2012 - 2021

Year	Metro East	Metro West	Northwest	Southeast	Other	Total
2012	131	169	32	51	37	420
2013	128	173	32	53	41	427
2014	126	176	33	53	46	434
2015	128	179	33	51	45	436
2016	124	184	30	47	46	431
2017	119	176	31	46	46	418
2018	124	180	32	49	47	432
2019	123	177	30	49	45	424
2020	125	181	31	49	49	435
2021	132	171	33	51	52	439
10-yr Avg	126	177	32	50	45	430
Var.	5%	-3%	4%	2%	15%	2%

The Department acknowledges Xcel fulfilled the requirements of Minnesota Rules 7826.0500, subp. 1.J.

9. Proposed 2021 Standards for SAIFI, SAIDI and CAIDI

In its filing, Xcel noted the Commission's March 2, 2022 Order in Docket No. E002/M-21-237 required the Company to use the following 2021 IEEE benchmarking results as Xcel's 2021 proposed standards:

- Metro East work center - second quartile using the large utilities peer group;
- Metro West work center - second quartile using the large utilities peer group;
- Northwest work center - second quartile using the medium utilities peer group.
- Southeast work center - second quartile using the medium utilities peer group.

The IEEE Distribution Reliability Working Group benchmarking information will not be available until later this year. Xcel will provide supplemental information once it receives and has an opportunity to review that information.

The Department concludes Xcel complied with the requirements for setting the annual reliability standards listed in Minnesota Rules 7826.0600, subp. 1.

E. RELIABILITY AND SERVICE QUALITY REPORTING REQUIREMENTS REQUIRED BY COMMISSION ORDER

The Company identified 14 different proceedings and 14 Commission Orders containing compliance or reporting requirements related to service reliability. Given the emphasis the Commission has placed on gathering additional reliability information in the past few years, the Department elected to review Xcel's compliance efforts with those Orders in reverse chronological order.

- 2020 Annual Safety, Reliability and Service Quality Standards Report (E002/M-21-237) – ORDER, dated December 2, 2021, and ORDER ACCEPTING REPORTS AND SETTING 2021 RELIABILITY STANDARDS, dated March 2, 2022.
- 2019 Annual Safety, Reliability and Service Quality Standards Report (E002/M-20-406) – ORDER ACCEPTING REPORTS, REQUIRING ADDITIONAL FILINGS, AND DESTABLISHING WORKSHOP, dated December 18, 2020.
- 2018 Annual Safety, Reliability and Service Quality Standards Report (E002/M-19-261) – ORDER ACCEPTING REPORTS, ESTABLISHING RELIABILITY STANDARDS AND REQUIRING ADDITIONAL FILINGS dated January 28, 2020.
- 2017 Annual Safety, Reliability and Service Quality Standards Report (E002/M-18-239) – ORDER ACCEPTING REPORTS, SETTING 2018 RELIABILITY STANDARDS AND SETTING FUTURE REPORTING REQUIREMENTS dated March 19, 2019.
- 2016 Annual Safety, Reliability and Service Quality Standards Report (E002/M-17-249) – ORDER dated February 9, 2018.
- 2015 Annual Safety, Reliability and Service Quality Standards Report (E002/M-16-281) – ORDER dated February 9, 2018.

- 2013 Annual Safety, Reliability and Service Quality Standards Report (E002/M-14-131) – ORDER dated December 12, 2014.
- 2012 Xcel Energy Electric General Rate Case (E002/GR-12-961) – ORDER APPROVING XCEL'S COMPLIANCE FILING AND REQUIRING ADDITIONAL COMPLIANCE REQUIREMENTS dated November 19, 2013.
- 2009 Annual Safety, Reliability and Service Quality Standards Report (E002/M-10-310) – ORDER dated September 30, 2010.
- 2008 Annual Safety, Reliability and Service Quality Standards Report (E002/M-09-343) – ORDER dated August 11, 2009.
    - Commission Investigation into Xcel Energy Inaccurate Gas Meters, Recalculation of Bills and Related Issues, Docket Nos. E,G002/M-09-224 and G002/CI-08-871, ORDER dated November 30, 2010.
    - 2004 Annual Safety, Reliability and Service Quality Standards Report (E002/M-05-551) – ORDER ACCEPTING ANNUAL REPORTS, SETTING RELIABILITY STANDARDS AND SETTING FILING REQUIREMENTS, dated April 7, 2006.
    - 2003 Annual Safety, Reliability and Service Quality Standards Report (E002/M-04-511) – ORDER ACCEPTING ANNUAL SAFETY, RELIABILITY AND SERVICE QUALITY REPORTS, APPROVING 2004 RELIABILITY STANDARDS, GRANTING VARIANCES AND CLARIFYING REQUIREMENTS, dated November 3, 2004.

The Department elected to review the 14 different Orders in one section of its comments. This simplified the review process as the Department was not required to parse the different Commission reporting requirements into safety, reliability, or service quality categories.

1. 2021 Annual SRSQ Filing – March 2, 2022, Order

The Commission's March 2022 Order in Docket No. E002/M-21-237 requires Xcel Energy to include the following in its Annual Report at Order Points 8, 9, and 10.

8. The Commission sets Xcel Energy's 2021 statewide reliability standard at the IEEE benchmarking second quartile for large utilities, sets Xcel's Southeast and Northwest work center reliability standards at the IEEE benchmarking second quartile for medium utilities; and sets Xcel's Metro East and Metro West work center reliability standards at the IEEE benchmarking second quartile for large utilities.
9. Xcel Energy must file a supplemental filing to its 2021 safety, service quality, and reliability report 30 days after the IEEE publishes the 2021 benchmarking results. The supplemental filing must include an explanation for any standards the utility did not meet.
10. Xcel must facilitate record development in its current rate case that examines the Company's distribution system spending and maintenance in the Southeast Work Center compared to other areas of the Company's service territory.

The Department verifies Xcel complied with Order Point 8 in its 2021 Annual Report. The requirement in Order Point 9 is prospective and the Company committed to provide that information as well. The requirement in Order Point 10 relates to a different proceeding, the Company's 2021 Electric general rate case. The Department requests the Company provide this information in its reply comments.

The Department concludes Xcel Energy appears to have fulfilled the requirements of the Commission's March 2, 2022, Order in Order Points 8 and 9 in Docket No. E002/M-21-237 to the extent possible. The Department will provide additional information on Order Point 10 once it reviews the information the Company provides in its reply comments.

2. 2021 Annual SRSQ Filing – December 2, 2021, Order

The Commission's December 2021 Order Points 2 through and 7 in Docket No. E002/M-21-237 require utilities to include the following in its service quality report:

1) Electronic utility-customer interaction beginning with the reports filed in April 2023;
2) Percentage uptime and error rate percentage information for the General Website, Payment Service and Outage map/&/or Outage Info page as well as the error rate percentage for payment services beginning in April 2023.
3) To continue to provide information on electronic utility-customer interaction such that baseline data are collected:
    a) Yearly total number of website visits;
    b) Yearly total number of logins via electronic customer communication platforms;
    c) Yearly total number of emails or other customer service electronic communications received; and
    d) Categorization of email subject, and electronic customer service communications by subject, including categories for communications related to assistance programs and disconnections as part of reporting under Minn. R. 7826.1700.
    e) Xcel to provide additional information on the progress it made hiring new call center representatives in 2021 and the effects of those new employees on its agent only metrics.
    f) A requirement to add in the upcoming and subsequent reports a "DER Complaint" reporting category.
    g) Public facing summaries with their annual Safety, Reliability, and Service Quality reports.

a) *Specific Percentage Uptime and Error Rater Percentage Information*

Xcel is collecting this information and will provide it in its 2023 SRSQ Annual Report which will be filed in April 2024.

b) *Percentage Uptime and Error Rate Percentage Base Data Collection*

The Company is committed to providing the Commission this information over the next two annual SRSQ reporting cycles.

c) *Electronic Customer Contact Information*

The Company provided the information requested in the 2020 and 2021 reports thereby meeting the requirement in the 21-237 Order.

Xcel included a discussion addressing Order Point 14 of the Commission's December 2020 Order on pages 64-65 of its Report.

The Company provided monthly page views of its website, Facebook, MyAccount, as well as the number of mobile app installations. The Department summarizes these annual figures in Table 12 below for 2020 and 2021:

Table 12 Comparison of Xcel's 2020 and 2021 Page Views and App Installations Totals

Description	2020 Results	2021 Results	Percentage Difference
Website	12,681,427	11,098,531	-12.4%
MyAccount, Mobile App Installations	19,432,738	14,626,276	-24.7%
Email	235,210	121,679	-48.2%

Xcel also provided a monthly summary of all emails received through the customerservice@xcelenergy.com email address, as well as a chart of the subject category of each email. The Department summarizes these annual figures for 2020 and 2021 in the table below:

Table 13 Comparison of Xcel's 2020 and 2021 Annual Number of Emails Received and Number of Emails Received by Top Six Subject Categories

Email Topic	2020	2021	Percentage Difference
Billing	70,093	42,344	-39.6%
Start/Stop/Transfer	52,922	36,625	-30.8%
MyAccount	41,161	20,929	-49.1%
Other	12,701	6,206	-51.1
Outages	10,349	5,719	-44.7%
Credit	9,173	3,407	-62.8%
Subtotal	196,399	115,230	
Not Identified	38,811	6,449	
Total	235,210	121,679	

The information in Tables 12 and 13 is perplexing. The Company data suggest a decrease in the number of website visits and MyAccount and Mobile App Installation interactions. Email interactions declined by almost half between 2020 and 2021. The Department requests the Company discuss the potential drivers for those decreases in its reply comments. The Department is also interested in Xcel's forecast regarding these categories of interactions for 2023.

d) *File Public Facing Summaries with the Annual SRSQ Report*

The Company provide this information in Attachment H of its Annual Report.

e) *Additional Information on Hiring of New Call Center Employees*

The Company discussed its efforts to hire new call center employees on pages 9 through 11 of the Report. Xcel increased its base pay rate by 20% to hire and retain more call center representatives. The increased starting wage did help hiring; however, the Company's 2021 call center metrics still did not meet Commission requirements. Xcel attributed this outcome to the time-consuming process for training new employees and a cold winter which increased the number of customer calls.

f) *DER Complaint Reporting Category*

The Company provide this information on pages 14 through 16 of its Annual Report.

The Department review concludes Xcel met the reporting requirements in the Commission's December 2, 2021, Order in Docket No. E002/M-21-237.

3. 2019 SRSQ Filing - December 18, 2020, Order

The Commission's December 18, 2020, Order in Docket No. E015/M-20-406 required Xcel to include the following in its service quality reports:

- Continuing to file quarterly status reports on efforts to improve reliability in the Southeast Work Center.
- Xcel must file reliability metrics for feeders with grid modernization investment.
- Electronic customer contacts at Order Point 14.
- Revised categories for reporting complaint data at Order Point 16.
- Public facing summaries.
- Requirement to file reliability information within a .csv or /xlsx file.
- Locational/Equity Reliability Data as discussed in Attachment A in its April 1, 2021, filing and an interactive map associated with that information.

a) Southeast Work Center Reliability Reports

The Company continues to file this information and provided a copy of the 4th quarter 2021 report as Attachment I to the filing.

b) Reliability Metrics for Feeders with Grid Modernization Investments

Xcel discussed this topic on pages 36 and 37 of the Report. The Company did not provide any data related to this issue.

c) Electronic Customer Contacts

The Department discussed the electronic customer contacts requirement above.

d) Revised Complaint Categories

Regarding the revised categories for reporting complaint data, the Department did participate in the workshop exercise the Commission required. Xcel discussed the results of those workshops and the corresponding new complaint categories on pages 14 and 15 of the Report.

The Company noted it participated in a Commission-sponsored work group. This work group met repeatedly and developed a refinement of the inadequate service complaint category. Xcel will begin using this revised customer complaint category in its 2023 SRSQ Annual Report which will be filed in April 2024.

e) Public Facing Summaries

This topic was discussed earlier in these comments.

f) Requirement to File Reliability Information

The Department did not identify the process for receiving this information in the Report. The Department requests the Company address this issue in its reply comments.

g) Locational Equity/Reliability Information and Interactive Map

The Company made this information available on its website on April 1, 2022 and provided a link in the Report.

The Department concludes Xcel appears to have fulfilled the requirements of the Commission's December 18, 2020, Order in Docket No. E002/M-20-406.

4. 2018 SRSQ Report

The Commission's January 28, 2020, Order in Docket No. E002/M-19-261 required a public facing summary which has been discussed previously. In addition, it included Attachment B, which updated the annual reporting requirements for the Company. Attachment B required Xcel to report the following :

- Non-normalized SAIDI, SAIFI, and CAIDI values.
- SAIDI, SAIFI, and CAIDI values calculated using the IEEE 1366 method.
- MAIFI, normalized and non-normalized.
- CEMI – at normalized and non-normalized outage levels of 4, 5, and 6.
- The highest number of interruptions experienced by any one customer.
- CELI – at normalized and non-normalized intervals of greater than 6 hours, 12 hours, and 24 hours.
- The longest experienced interruption by any one customer (or feeder).
- A breakdown of field versus office staff required.
- Estimated restoration times.
- IEEE benchmarking.
- Performance by customer class.
- More discussion of leading causes of outages and mitigation strategies.

The Department summarizes Xcel's compliance with each reporting requirement in turn.

a) Non-normalized SAIDI, SAIFI, and CAIDI values

Xcel provided information that appears to fulfill the first two of these requirements in its Table 12 at page 26 of the Report. The Company reported "Historical Reliability & Storm Day Exclusions" calculated according to three different approaches – 1) All Days; 2) Minnesota Quality of Service Tariff methodology; and 3) Annual Rules methodology. In addition, the Company provided a graph delineating the major causes of outages in 2021 for its entire Minnesota service territory as well as by work center. This information appears responsive to the second requirement listed above.

b) SAIDI, SAIFI, and CAIDI values calculated using the IEEE 1366 method

See Table 12 of the Annual Report.

c) MAIFI – normalized and non-normalized

Xcel provided this information on pages 66 and 67 of its Annual Report. The Company provided MAIFI calculations by work center and for all of Minnesota for the 2010 through 2021 period using three different calculation protocols. These included 1) with storms, all levels all causes; 2) QSP tariff IEEE approach, no transmission outages; and 3) Annual Rules IEEE all levels.[19] Xcel also provided information on the MAIFI drivers by work center.

The Department concludes Xcel complied with these reporting requirements.

d) Customers Experiencing Multiple Interruptions (CEMI)

Xcel provided this information in Graph 20 on page 73 of the filing. The information in that graph suggests the Company's CEMI 4, 5, 6+ results for 20201 were worse (higher as a percentage) than the last several years. The Department will continue to monitor this situation.

The Department concludes Xcel complied with this reporting requirement.

e) Highest number of interruptions by any one customer (or feeder, if customer level is not available)

Xcel noted two customers experienced 11 outages, and the Company was working to resolve these customers' reliability issues.

The Department concludes Xcel complied with this reporting requirement.

[19] Report at pages 54 through 60.

f) CELI – at intervals of greater than 6 hours, 12 hours, and 24 hours

Xcel provided this information in Graphs 22 and 23 on page 75 of the filing. The Department did not identify a trend towards improvement in Graph 22. A cursory review of Graph 23 suggested a trend towards improvement.

The Department concludes Xcel complied with this reporting requirement

g) Longest interruption experienced by any one customer

Xcel discussed this metric on pages 75 and 76 of the Report. The longest outage in 2021 was 3,848 minutes (64 hours or 2 days 16 hours). It affected one customer.

h) A breakdown of field vs office staff required

The Department previously discussed this information on page 17 of these comments.

i) Estimated time of restoration

Order Point 2 (Attachment B, item 9) in the January 28, 2020, Order in Docket No. E002/M-19- 261 also requires the Company to provide the estimated restoration time accuracy from 0 to +30 minute window.

The Company discussed estimated restoration times (ERTs) and the Company's measurement efforts, along with communication it has provided to its customers.[20]

Table 14 below shows the Company's performance related to its ERTs over the past three years.

Table 14: ERT Accuracy – Within -90 to +0 Minutes

Entity	2016	2017	2018	2019	2020	2021
NSPM	45.9%	43.5%	43.6%	48.3%	54.4%	53.9%
MN Only	45.7%	43.1%	43.5%	49.9%	54.3%	54.8%

The Company appears demonstrate some improvement in this metric. Table 15 provides similar information for the +1 to +30 minute ERT window.

[20] Report at pages 49 through 52.

Table 15: ERT Accuracy – Within +1 to +30 Minutes

Entity	2016	2017	2018	2019	2020	2021
NSPM	8.2%	10.1%	8.0%	10.0%	10.4%	11.3%
MN Only	8.3%	10.0%	7.5%	10.4%	10.3%	10.9%

The Company appears to demonstrate some improvement in this metric as well. The Department concludes Xcel complied with this aspect of the Commission Order.

j) IEEE benchmarking results for SAIDI, SAIFI, CAIDI, and MAIFI

This requirement was superseded by a similar requirement in the Commission's Order dated March 2, 2022, in Docket No. E025/M-21-237.

k) *Performance by customer class*

The Company discussed this issue on page 32 of the Report and stated Xcel cannot provide specific outage data by customer class. The Company did provide a feeder-level analysis that suggests feeders with more commercial customers have better reliability metrics than those feeders that serve primarily residential customers.

The Department concludes Xcel complied with the requirement included in the Commission Order.

l) More discussion of leading causes of outages and mitigation strategies

Xcel provided this information in its discussion of factors affecting reliability reporting on pages 22 – 23 of the Annual Report. The Company discussed mitigation strategies in the grid mod section of the Annual Report on pages 26 – 34.

The Department concludes Xcel appears to have fulfilled the requirements of the Commission's January 28, 2020, Order in Docket No. E015/M-19-261.

5. 2017 SRSQ Report

The Commission's March 19, 2019, Order in Docket No. E002/M-18-239 required the following annual reporting requirements for the Company.

- Non-normalized SAIDI, SAIFI, and CAIDI values.
- SAIDI, SAIFI, and CAIDI values calculated using the IEEE 2.5 beta method.

- CEMI – at normalized and non-normalized outage levels of 4, 5, and 6.
- CELI – at normalized and non-normalized intervals of greater than 6 hours, 12 hours, and 24 hours.
- Estimated restoration times.
- IEEE benchmarking.
- Performance by customer class.
- More discussion of leading causes of outages and mitigation strategies.
- A discussion of how grid modernization initiatives could impact reliability metrics and what technologies are needed to advance tracking of additional metrics.

The reporting requirements listed in the first eight bullet points are the same as those addressed in response to the reporting requirements included in the Commission's January 28, 2020, Order in Docket No. E002/M-19-261. The Department will not repeat that information here.

As for the grid modernization reporting requirement, the Company addressed the issue on pages 26-34 of the Report.

6. 2016 and 2015 SRSQ Reports

The Commission's February 9, 2018, Order in Docket Nos. E002/M-16-281 and E002/M-17-249 required Xcel to provide the following information in its next annual service quality report:

- The Company's data on benchmarking with national IEEE Reliability Standards.
- A qualitative discussion of ways the Commission looks at increased granularity.
- An assessment of MAIFI data.
- A summary of the Company's response time to customers and steps the Company is taking to measure and communicate more accurately the Company's estimated response time to customers.
- The Company's internal customer satisfaction goals and a comparison of the Company's actual performance to those goals as well as an explanation of the basis for those customer satisfaction goals.
- With respect to the distribution feeder table identification provided in the report, Xcel shall include the appropriate locational labels, applicable substation name, and region to which the information relates.
- The Company's additional thinking on CEMI and CELI metrics after consultation with the DOC and other interested parties.
- Data on the number of applicants and participants in the Company's emergency medical accounts.

a) IEEE Reliability Standards and Company's Data

Xcel discussed this topic on pages 24 and 25 of the Report. Xcel committed to supplementing the Report to include IEEE 2021 benchmarking results.

b) Discussion of Increased Granularity

Several of the Commission's Orders issued regarding safety, service quality, and service reliability reporting since this docket have pushed this concept. The Department considers large parts of the Report responsive to this requirement.

c) An Assessment of MAIFI Data

See page 24 of these comments.

d) Company's Estimated Response Times

See page 24 and 25 of the comments.

e) Customer Satisfaction Goals

Xcel provided the internal goals information. The Company achieved two out of four (50%) of the annual customer satisfaction goals identified in 2021. Xcel also provided trade secret information from J.D. Power, which is summarized in **TRADE SECRET** Tables 16 and 17.

PUBLIC Table 16 Comparison of Xcel's 2020 and 2021 JD Power Residential Satisfaction Metrics for NSP

Metric	2020 Index Score	2021 Index Score	2020 Peer Percentile Rank	2021 Peer Percentile Rank
	[TRADE SECRET DATA HAS BEEN EXCISED]			
Overall Customer Satisfaction Index				
Power Quality and Reliability				
Price				
Billing and Payment				
Corporate Citizenship				
Communications				
Customer Contact				

It is unwise to draw any broad conclusions from this comparison of Xcel's 2020 and 2021 JD Power residential customer satisfaction results given the information provided. However, it does not appear Xcel's residential customers' satisfaction levels are increasing in any of the seven metrics listed. Perhaps the most concerning figure is the Billing and Payment metric's 2021 percentile rank. The Department requests the Company discuss these results in greater detail in its reply comments.

PUBLIC Table 17 Comparison of Xcel's 2020 and 2021 JD Power Small Commercial Satisfaction Metrics for NSP

Metric	2020 Index Score	2021 Index Score	2020 Peer Percentile Rank	2021 Peer Percentile Rank
	[TRADE SECRET DATA HAS BEEN EXCISED]			
Overall Customer Satisfaction Index				
Power Quality and Reliability				
Price				
Billing and Payment				
Corporate Citizenship				
Communications				
Customer Contact				

A comparison of the 2020 and 2021 customer satisfaction results for the Small Commercial class is a bit more favorable. Three of the six metrics increased slightly. The Department requests the Company discuss these results in greater detail in its reply comments as well.

f) Distribution Feeder Location Requirement

This requirement was superseded by the Commission's reporting requirement included in the Commission's December 18, 2020, Order in Docket No. E002/M-20-406 regarding Attachment A.

g) The Company's Thinking on CEMI and CELI After Consultation with Other Parties

This requirement was superseded by the Commission's reporting requirement included in the Commission's January 28, 2020, Order in Docket No. E002/M-19-261 regarding Attachment B.

h) Data on the Company's Emergency Medical Accounts

See page 10 of these comments.

7. 2013 SRSQ Report

The Commission's December 12, 2014 Order in Docket No. E002/M-14-131 required Xcel to provide the following information in its next annual service quality report:

- Augment its next filing to include a description of the policies, procedures, and actions that it has implemented, and plans to implement, to assure reliability, including information on how it is demonstrating pro-active management of the system as a whole, increased reliability, and active contingency planning.
- Incorporate a summary table that allows the reader to more easily assess the overall reliability of the system and identify the main factors that affect reliability.
- Report on the major causes of outages for major event days.
- Require Xcel to consider other factors, in addition to historical data, on which to base its reliability indices for 2014 in an effort to demonstrate its commitment toward improving reliability performance.
- Require Xcel to continue reporting major service interruptions to the Commission's Consumer Affairs Office.

a) Augment Description of Policies and Procedures to Assure Reliability

The Company discussed this Order Point on pages 23 and 24 of the filing. Compared to the 2013 filing, Xcel is providing significant amounts of information in response to additional Commission ordered reporting requirements.

b) Incorporate a Summary Table to More Easily Assess the System's Overall Reliability

See Table 12 on page 28 of the Report.

c) Report on the Major Causes of Outages for Major Event Days

See Graphs 1 through 4 on pages 29 through 31 of the Report.

d) Require Xcel to Consider Other Factors on Which to Base its Reliability Indices Other than Historical Data

The Commission's decision to use the IEEE Benchmarking Results as reliability goals in its March 2, 2022, Order in Docket No. E002/M-21-237 is the culmination of Xcel's and the Commission's work to move form a historical perspective to a peer-group perspective.

e) Require Xcel to Continue Reporting Major Service Interruptions to the CAO

The topic is discussed on page 18 of these comments.

8. 2012 Electric General Rate Case

The Commission's November 19, 2013, Order in Docket No. E002/GR-12-961 required Xcel to provide the following information in its April 1, 2014, Annual Report:

- A table with annual MAIFI results for Minnesota and the four work centers using three different normalization methodologies.
- A table with the MAIFI results and Customer Interruptions by month and work center.
- A five-year historical look for Minnesota MAIFI that shows the three different normalization methodologies and their associated trend lines.
- A pareto charge showing the top causes for interruptions for the current year.
- A pareto charge showing the top causes for interruptions for the past five years.

The Company provided information responsive to these five topics on pages 66 through 71 of the Report as well as in Attachment P.

9. 2009 SRSQ Report

The Commission's September 30, 2010, Order in Docket No. E002/M-10-310 required Xcel to provide the following information in its next annual service quality report:

- Augment their next filing to include a description of the policies, procedures, and actions that it has implemented, and plans to implement, to assure reliability. Xcel should include information on how it is demonstrating proactive management of the system as a whole, increased reliability, and active contingency planning.
- Continues to require Xcel to incorporate a summary table (or summary information in some other format) that allows the reader to more easily assess the overall reliability of the system and identify the main factors that affect reliability.
- Requires Xcel to report on the major causes of outages for major event days.

a) Augment Description of Policies and Procedures to Assure Reliability

The Company discussed this Order Point on pages 23 and 24 of the filing.

b) Incorporate a Summary Table to More Easily Assess the System's Overall Reliability

See Table 12 on page 28 of the Report.

c) Report on the Major Causes of Outages for Major Event Days

See Graphs 1 through 4 on pages 29 through 31 of the Report.

10. 2008 SRSQ Report

The Commission's September 30, 2010, Order in Docket No. E002/M-10-310 required Xcel to provide the following information in its next annual service quality report:

- Augment its next filing to include a description of the policies, procedures, and actions that it has implemented, and plans to implement, to assure reliability. Xcel shall include information on how it is demonstrating proactive management of the system as a whole, increased reliability, and active contingency planning, including a specific discussion of the status and actions of its strategic initiatives as set forth in Ordering Paragraph 4a of its Order Accepting Annual Reports, Setting Reliability Standards and Setting Additional Filing Requirements in Docket No. E002/M-08-393 (October 24, 2008).
- Incorporate into its next filing a summary table (or summary information in some other format) that allows the reader to more easily assess the overall reliability of the system and identify the main factors that affect reliability.

a) Augment Description of Policies and Procedures to Assure Reliability

The Company discussed this Order Point on pages 23 and 24 of the filing.

b) Incorporate a Summary Table to More Easily Assess the System's Overall Reliability

See Table 12 on page 28 of the Report.

11. Investigation into Xcel Energy's Inaccurate Gas Meters, Recalculation of Bills and Related Issues (Docket No. G002/CI-08-871) and Service Rules Tariff Modification (Docket No. E,G002/M-09-22)

In the Commission's November 30, 2010, Order in Docket Nos. G002/CI-08-871 and E,G002/M-09-224, at Order Point 2, the Commission directed the Company to file the following information with its annual electric service quality reports filed pursuant to Minnesota Rules 7826.0500:

- Volume of Investigate and Remediate Field orders.
- Volume of Investigate and Refer Field orders.
- Volume of Remediate Upon Referral Field orders.
- Average response time for each of the above categories by month and year.
- Minimum days, maximum days, and standard deviations for each category.
- Volume of excluded field orders.

The Company provided this information in Attachment D to the filing. It appears the total amount of orders increased from 8269 in 2020 to 8757 in 2021 or 6%. The average days for those orders decreased from 3.88 in 2020 to 4.17 in 2021, while the total number of maximum days and the standard deviation increased from 88 to 170 and 3.69 to 5.09 respectively. The Department would characterize Xcel's 2021 results as mixed compared to its 2020 results. In the Report, the Company noted ongoing issues arising from the COVID-19 pandemic influenced its 2021 results.

The Department acknowledges Xcel fulfilled the requirements in the Order listed above.

12. 2004 SRSQ

The Commission's April 7, 2006 Order in Docket No. E002/M-05-551 required Xcel to provide the following information in its 2006 annual service quality report:

- Xcel shall report on the 25 worst performing circuits in each of its four work centers.

The Company discusses this requirement on pages 55 through 57 of the Report. Attachment M also addresses this requirement.

13. 2003 SRSQ

In the Commission's November 3, 2004 Order in Docket No. E002/M-04-511, the Commission required Xcel to include the following information in future reports:

- A copy of every notification of an outage event sent to the Consumer Affairs Office which meets the standards set forth in Minnesota Rules 7826.0700, subp. 1 affecting 500 or more customers for one or more hours.
- Data regarding credit calls…in its calculation of call center response times.

a) Filing Outage Reports with CAO

The Commission varied that rule requirement in its Order dated December 18, 2020, in Docket No. E002/M-20-406, so this requirement is no longer applicable.

b) Including Credit Calls in Calculation of Call Center Response Times

The Company has included this requirement in this calculation for several years. See Attachment F of this year's Report.

14. Department Review of Xcel's Compliance Efforts Relative to Commission Orders Regarding Service Quality and Service Reliability

The Department's review of these different Orders finds the Company largely complied or attempted to comply with the Commission's reporting requirements. Except for the Department's request for additional information, the Department believes Xcel provided the Commission-requested information. The Department also suggests the Commission consider initiating a work group to review and simplify the different reporting requirements included in the 14 or so Commission Orders that cover this topic. There are several overlapping Commission requirements regarding different aspects of the SRSQ as the somewhat cumbersome approach we used in this section of the Department's comments identifies. It would be helpful to condense and simplify those Order requirements for future Annual Reports.

III. CONCLUSION AND RECOMMENDATIONS

The Department recommends the Commission accept the Company's 2021 Safety Report.

The Department also requests the Company provide information on the following topics in its Reply Comments:

- A comparison of JD Power survey results for 2020 and 2021.
  - Explain the 2021 commercial class results for service installation times as compared to 2020.
- Additional information regarding the requirement in Order Point 10 of the Commission's March 2, 2022 Order in Docket No. E002/M-21-237 regarding information provided in the Company's 2021 Electric general rate case.
- A discussion of the drivers for the apparent decrease in the number of website visits and MyAccount and Mobile App Installation interactions as well as Email interactions between 2020 and 2021.
- The process for receiving reliability information in an electronic format as identified in the Commission's December 2, 2021, Order in Docket No. E002/M-21-237.

The Department also suggests the Commission consider initiating a work group to review and simplify the different reporting requirements included in the 14 or so Commission Orders that cover the information included in Xcel's Service Reliability and Service Quality Report.

COMMERCE DEPARTMENT

October 24, 2022

Will Seuffert
Executive Secretary
Minnesota Public Utilities Commission
121 7th Place East, Suite 350
St. Paul, Minnesota 55101-2147

RE: **Minnesota Department of Commerce, Division of Energy Resources – Supplemental Comments Regarding Xcel Energy's 2021 Annual Service Quality Report**
Docket No. E002/M-22-162

Dear Mr. Seuffert:

In comments filed June 2, 2022, in this docket, the Minnesota Department of Commerce, Division of Energy Resources (Department) requested that Northern States Power Company d/b/a Xcel Energy (Xcel or the Company) provide information in its reply comments regarding the following topics in its reply comments:

- A comparison of JD Power survey results for 2020 and 2021.
- Explain the 2021 commercial class results for service installation times as compared to 2020.
- Additional information regarding the requirement in Order Point 10 of the Commission's March 2, 2022, Order in Docket No. E002/M-21-237 regarding information provided in the Company's 2021 Electric general rate case.
- A discussion of the drivers for the apparent decrease in the number of website visits and MyAccount and Mobile App Installation interactions as well as Email interactions between 2020 and 2021.
- The process for receiving reliability information in an electronic format as identified in the Commission's December 2, 2021, Order in Docket No. E002/M-21-237.

The Department also stated it would make final recommendations on the Company's Annual Service Quality Report after reviewing Xcel's reply comments.

On June 24, 2022, the Company submitted its reply comments. Xcel provided additional information regarding staffing related to the five items listed above.

The Department recommends the Commission approve the customer service aspect of this filing.

The Department is available to answer any Commission questions.

Sincerely,

/s/ JOHN KUNDERT
Financial Analyst

JK/ja
Attachment

Before the Minnesota Public Utilities Commission

Supplemental Comments of the Minnesota Department of Commerce Division of Energy Resources

Docket No. E002/M-22-162

I. INTRODUCTION

The Minnesota Department of Commerce, Energy Division (Department) appreciates the opportunity to provide supplemental comments regarding Northern States Power, d/b/a Xcel Energy's (Xcel, the Company) Annual Compliance with Annual Safety, Reliability, and Service Quality Metrics for 2021.

In our initial comments in this docket, the Department recommended the Commission accept the Company's 2021 Safety Report and requested the Company provide information on the following topics in its Reply Comments:

- A comparison of JD Power survey results for 2020 and 2021.
- Explain the 2021 commercial class results for service installation times as compared to 2020.
- Additional information regarding the requirement in Order Point 10 of the Commission's March 2, 2022, Order in Docket No. E002/M-21-237 regarding information provided in the Company's 2021 Electric general rate case.
- A discussion of the drivers for the apparent decrease in the number of website visits and MyAccount and Mobile App Installation interactions as well as Email interactions between 2020 and 2021.
- The process for receiving reliability information in an electronic format as identified in the Commission's December 2, 2021, Order in Docket No. E002/M-21-237.

The Department also suggested the Commission consider initiating a work group to review and simplify the different reporting requirements included in the 14 or so Commission Orders that cover the information included in Xcel's Service Reliability and Service Quality Report.

On June 24, 2022, the Company submitted its reply comments. Xcel provided additional information regarding staffing related to the five items listed above. The Company also supported the Department's suggestion the Commission consider initiating a work group to review and simplify the different reporting requirements included in the various Commission Orders that pertain to this filing requirement.

II. ANALYSIS

The Department's analysis follows the bullet points contained in the previous section.

A. COMPARISON OF JD POWER SURVEY RESULTS FOR 2020 AND 2021

The Department requested the Company provide additional discussion about why Xcel's customer satisfaction levels are not increasing in any of the seven metrics. Xcel did provide a correction to its 2021 Customer Contact Index Score which increased that score by 14%. This correction alleviates much of the Department's concerns regarding the 2021 JD Power results.

The Company did not provide a hypothesis as to why its customer satisfaction levels are not increasing in any of the seven metrics. That said, the Department has no additional comments on this issue. The Commission may want to review this issue with the Company at some point in the future.

B. COMPARISON OF 2020 AND 2021 COMMERCIAL CLASS SERVICE INSTALLATION TIMES

The Department asked the Company to explain this issue in reply comments. Xcel did provide this information. The Company identified four drivers for this change.

- Permitting
- Customer Delays
- Supply Chain Issues
- Design Resource Issues

The Department appreciates Xcel's explanation for this degradation between 2020 and 2021 for this performance metric and has no additional comments on this issue.

C. ORDER POINT 10 OF COMMISSIONS'S MARCH 2, 2022, IN DOCKET NO. E002/M-21-237 – ADDITIONAL INFORMATION

Xcel noted the Company will file this information as part of its Rebuttal Testimony on November 8, 2022, in the Company's MN Electric Rate Case, Docket No. E002/M-21-630.

The Department has no additional comments on this issue.

D. COMPARISON OF MYACCOUNT/MOBILE APPLICATION INSTALLATIONS AND EMAIL INTERACTIONS BETWEEN 2020 AND 2021

The Department asked the Company to discussion the drivers for the apparent decrease in the number of website visits and MyAccount and Mobile App installation interactions as well as Email interactions between 2020 and 2021.

In its reply comments, the Company provided additional information as the Department requested. Xcel noted significant revisions to its 2020 and 2021 results. Tables 1 and 2 summarize this information.

Table 1 – Comparison of 2020 Original and Revised Website Visits and My Account + Mobile App

Description	Original	Revised	Difference	Percentage Change
Website Visits	12,681,427	12,673,590	-7,837	-.01%
My Account + Mobile App	19,432,738	15,910,472	-3,522,266	-18%

Table 2 – Comparison of 2021 Original and Revised Website Visits and My Account + Mobile App

Description	Original	Revised	Difference	Percentage Change
Website Visits	11,098,531	14,351,582	3,253,051	29%
My Account + Mobile App	14,626,276	17,818,268	3,191,992	22%

Xcel explained that during the review of this information for its reply comments, staff identified a "discrepancy in the manner the data has been collected."[1] The Company also noted the number of website and My Account + Mobile App interactions increased from 2020 to 2021. Table 3 summarizes that information.

Table 3 – Comparison of 2020 and 2021 Revised Website Visits and My Account + Mobile App

Description	Original	Revised	Difference	Percentage Change
Website Visits	11,098,531	14,351,582	3,253,051	29%
My Account + Mobile App	14,626,276	17,818,268	3,191,992	22%

The Department appreciates the Company's efforts to resolve this issue and has no additional comments on this topic.

E. RELIABILITY INFORMATION – PROCESS FOR RECEIVING THIS INFORMATION IN AN ELECTRONIC FORMAT

The Department requested the Company provide additional information on this issue. Xcel complied with the Department's request.

[1] Reply comments at page 6.

The Department has no additional comments on this issue.

III. RECOMMENDATIONS

The Department recommends the Commission approve the customer service quality component of Xcel's 2021 service quality and service reliability filing.

COMMERCE DEPARTMENT

May 16, 2022

Will Seuffert
Executive Secretary
Minnesota Public Utilities Commission
121 7th Place East, Suite 350
St. Paul, Minnesota 55101-2147

RE: **Comments of the Minnesota Department of Commerce, Division of Energy Resources**
Docket No. E017/M-22-159

Dear Mr. Seuffert:

Attached are the comments of the Minnesota Department of Commerce, Division of Energy Resources (Department) in the following matter:

> Otter Tail Power Company's Annual Safety, Reliability and Service Quality Report and Proposed SAIFI, SAIDI and CAIDI Reliability Standards for 2022.

The report was filed on April 1, 2021 by:

> Wendi Olson
> Regulatory Compliance Specialist
> Otter Tail Power Company
> 215 South Cascade Street
> PO Box 496
> Fergus Falls, Minnesota 56538-0496

The Department:

- recommends that the Commission **accept** Otter Tail Power Company's (OTP or the Company) Annual Safety Report.

- requests OTP provide a discussion in its reply comments:

    - why the number of days of job transfer or restriction and days away from work metrics are trending higher than the 10-year average and;
    - why the number of complaints in 2021 increased by 277 percent over 2020.

- will make final recommendations on the Company's Annual Service Quality Report after reviewing its reply comments.

- will provide a recommendation on the Company's Annual Service Reliability Report after reviewing the Company's future supplemental filing on IEEE benchmarking data for 2021.

The Department is available to answer any Commission questions.

Sincerely,

/s/ JOHN KUNDERT
Financial Analyst

JK/ja
Attachment

Before the Minnesota Public Utilities Commission

Comments of the Minnesota Department of Commerce
Division of Energy Resources

Docket No. E017/M-22-159

I. BACKGROUND

Minnesota Rules, Chapter 7826 (effective January 28, 2003) were developed as a means for the Minnesota Public Utilities Commission (Commission) to establish safety, reliability, and service quality standards for utilities "engaged in the retail distribution of electric service to the public" and to monitor their performance as measured against those standards. There are three main annual reporting requirements set forth in the rule. These are:

(1) the annual safety report (Minnesota Rules, part 7826.0400),

(2) the annual reliability report (Minnesota Rules, parts 7826.0500, subp. 1 and 7826.0600, subp. 1), and

(3) the annual service quality report (Minnesota Rules, part 7826.1300).

In addition to the rule requirements, the Commission has issued three recent Orders that include additional reporting requirements. The Department lists the three Orders chronologically.

The Commission's January 28, 2020, Order in Docket No. E017/M-19-260 required Otter Tail Power Company (Otter Tail, OTP, or the Company) to include the following in its next annual filing:

a. Non-normalized SAIDI, SAIFI, and CAIDI[1] values;
b. SAIDI, SAIFI, and CAIDI values calculated using the IEEE [Institute of Electrical and Electronics Engineers] 2.5 beta method;
c. MAIFI [Momentary Average Interruption Frequency Index], normalized and non-normalized;
d. CEMI [Customers Experiencing Multiple Interruptions] – at normalized and non-normalized outage levels of 4, 5, and 6;
e. The highest number of interruptions experienced by any one customer;
f. CELI [Customers Experiencing Lengthy Interruptions] – at normalized and non-normalized intervals of greater than 6 hours, 12 hours, and 24 hours;
g. The longest experienced interruption by any one customer (or feeder);
h. A breakdown of field versus office staff required;

[1] SAIDI = System Average Interruption Duration Index, SAIFI = System Average Interruption Frequency Index, CAIDI = Customer Average Interruption Duration Index.

i. Estimated restoration times;
j. IEEE benchmarking;
k. Performance by customer class; and
l. More discussion of leading causes of outages and mitigation strategies.

Additionally, the Commission's December 18, 2020, Order in Docket No. E017/M-20-401 required the Company to propose a transition to the full benchmarking approach to setting reliability standards, including a discussion of the definition of work centers, benchmarking for individual work centers, and other considerations. The Commission also required the Company to report information on the number of website visits, logins to electronic customer communication platforms, emails from customers, and types of emails from customers. The Commission set service territory-wide reliability standards based for OTP based on the IEEE benchmarking second quartile for medium utilities.

In its December 2, 2021, Order in Docket No. E017/M-21-225 the Commission required to provide additional information regarding:

1) Electronic utility-customer interaction beginning with the reports filed in April 2023;
2) Percentage uptime and error rate percentage information in their annual reports for the next three reporting cycles, to build baselines for web-based services.
3) To continue to provide information on electronic utility-customer interaction such that baseline data are collected:
    a) Yearly total number of website visits;
    b) Yearly total number of logins via electronic customer communication platforms;
    c) Yearly total number of emails or other customer service electronic communications received; and
    d) Categorization of email subject, and electronic customer service communications by subject, including categories for communications related to assistance programs and disconnections as part of reporting under Minn. R. 7826.1700.
4) Public facing summaries with their annual Safety, Reliability, and Service Quality reports.

On April 1, 2022, OTP filed its *2020 Annual Safety, Reliability and Service Quality Report and Proposed SAIFI, SAIDI an CAIDI Reliability Standards for 2022* (Annual Report) in Docket No. E017/M-22-159 to comply with the Commission's January 28, 2020, Order, the December 18, 2020, Order, the December 2, 2021, Order, and the requirements of Minnesota Rules Chapter 7826.

On April 13, 2022, the Commission filed a *Notice of Comment Period* requesting that parties respond to the following questions:

1. Should the Commission accept Minnesota Power's, Otter Tail Power's, and Xcel Energy's 2021 Safety, Reliability, and Service Quality Metrics reports?

2. Are the utilities' reports consistent with recent Orders and Minn. Rules Ch. 7826 on Electric Utility Standards?

3. At what level should the Commission set the utilities' 2022 Reliability Standards?

4. Are there other issues or concerns related to this matter?

II. SUMMARY OF REPORT AND DEPARTMENT ANALYSIS

The Minnesota Department of Commerce, Division of Energy Resources (Department) reviewed OTP's Annual Report to assess compliance with Minnesota Rules, Chapter 7826, and the Commission's various Orders. The Department used information from past annual reports to facilitate identification of issues and trends regarding OTP's performance.

The Department provides:

- responses to the Commission's questions;
- a summary of our review of OTP's 2021 Safety, Reliability and Service Quality Reports;
- a discussion of the Company's reliability standards for 2022; and
- a discussion of the Company's compliance with other Commission Orders.

A. RESPONSE TO COMMISSION QUESTIONS

a. Should the Commission Accept OTP's Safety, Reliability and Service Quality Metrics Reports?

The Department recommends that the Commission accept Otter Tail's Annual Safety report. The Department is awaiting additional information regarding the Service Quality and Reliability portions of the Company's 2022 filing before making a recommendation regarding those aspects of the filing. OTP will be supplementing its petition sometime in the fall of 2022. That supplement will include reliability goals developed using the IEEE benchmarking methodology. The Department plans to file supplemental comments regarding its review of that information soon after OTP files that information.

b. Is Otter Tail's 2022 Annual Report consistent with recent Orders and Minn. Rules Ch. 7826 on Electric Utility Standards?

Yes, the Department's review concludes the Company's report is consistent with the requirements listed in the Commission's question.

c. At what level should the Commission set OTP's 2022 Reliability Standards?

The Commission adopted a new approach for calculating Otter Tail's reliability goals for 2021. The basis for those goals is an annual benchmarking analysis performed by the Institute of Electrical and Electronic Engineers (IEEE) Distribution Reliability Group. The Department recommends the Commission continue the current process for Otter Tails' 2022 Reliability Standards.

d. Are there other issues or concerns related to this matter?

The Department does not have any additional concerns at this time.

B. ANNUAL SAFETY REPORT

The annual safety report consists of two parts:

A. a summary of all reports filed with the United States Occupational Safety and Health Administration (OSHA) and the Occupational Safety and Health Division of the Minnesota Department of Labor and Industry (OSHD) during the calendar year; and

B. a description of all incidents during the calendar year in which an injury requiring medical attention or property damage resulting in compensation occurred as a result of downed wires or other electrical system failures and all remedial action taken as a result of any injuries or property damage described.

The following tables are a compilation of OTP's summaries of the reports the Company filed with OSHA and OSHD for the previous 10 years.

Table 1: Types and Numbers of Reports Filed with OSHA and OSHD (2012 -2021)

	Number of Deaths	Number of Cases with Days Away from Work	Number of Cases with Job Transfer or Restriction	Other Recordable Cases
2012	0	1	7	11
2013	0	3	4	6
2014	0	2	2	16
2015	0	3	7	17
2016	0	3	1	8
2017	0	1	1	10
2018	0	1	2	14
2019	0	3	3	4
2020	0	2	6	1
2021	0	1	3	10
Average	0	2	3.6	9.7
Variance	0	-1	-0.6	-0.3

The above results suggest that there was not a significant increase or decrease in the metrics included in Table 1 for Otter Tail in 2021.

Table 2: Number of Day of Restricted or Other Service in Reports filed with OSHA and OSHD (2012 -2021)

	Days of Job Transfer or Restriction	Days Away from Work
2012	6	39
2013	147	15
2014	48	14
2015	349	90
2016	240	10
2017	41	11
2018	152	6
2019	239	60
2020	451	17
2021	214	33
Average	188.7	29.5
Variance	25.3	3.5

The results in Table 2 suggest that the number of days of job transfer or restriction, while lower than 2020, is still trending higher than the 10-year average. The same holds true for the days away from

work metric. The Department asks the Company to discuss the drivers for this trend in its Reply Comments.

Table 3: Injury & Illness Types in Reports filed with OSHA and OSHD (2012 -2021)

	Injuries	Skin Disorders	Respiratory Conditions	Poisonings	All Other Illnesses
2012	19	0	0	0	0
2013	13	0	0	0	0
2014	20	0	0	0	0
2015	23	0	0	0	1
2016	12	0	0	0	0
2017	12	0	0	0	0
2018	14	0	0	0	0
2019	10	0	0	0	0
2020	9	0	0	0	0
2021	14	0	0	0	0
Average	14.6	0	0	0	0.1
Variance	-0.6	0	0	0	-0.1

The information in Table 3 for 2021 is consistent with prior years and the 10-year average. The Department has no additional comments.

The following table summarizes OTP's most recent and past reports regarding property damage claims that occurred because of downed wires or other electrical system failures.

Table 4: Property Damage Claims (2012 – 2021)

	Claims	Cause	Total Amount Paid
2012	0	N/A	N/A
2013	1	Downed Power Lines	$632.97
2014	5	Bad Connection, wrong voltage, bad cable, power surge (2)	$9,383.44
2015	2	Bad connection; voltage fluctuations	$1,552.70
2016	1	Faulty secondary wire	$277.50
2017	3	Crop and property damage	$2,882.00
2018	1	UG Fault	$100.00
2019	0	N/A	$0.00
2020	0	N/A	$0.00
2021	0	N/A	$0.00
Average	1.4	Not Applicable	$1482.96
Variance	-1.4	N/A	-$1482.96

Otter Tail had another good year in terms of property damage claims. The Department has no additional comments.

The Department acknowledges OTP's fulfillment of the requirements of Minnesota Rules, part 7826.0400.

C. ANNUAL RELIABILITY REPORT

Minnesota Rules, part 7826.0500 requires each utility to file an annual report that includes the following information:

1. reliability performance,
2. storm-normalization method,
3. action plan for remedying any failure to comply with the reliability standards,
4. bulk power supply interruptions,
5. major service interruptions,
6. circuit interruption data (identify worst performing circuit),
7. known instances in which nominal electric service voltages did not meet American National Standards Institute (ANSI) standards,
8. work center staffing levels, and
9. any other relevant information.

1. Reliability Performance

For 2021, OTP's assigned service territory consists of four work centers – Bemidji, Crookston, Fergus Falls and Morris.[2]

The following table shows the Company's 2021 reliability performance compared with the goals set by the Commission in Docket No. E017/M-20-401 using the historical Minnesota Rules-based calculation.[3]

Table 5: OTP's 2021 Reliability Performance Compared with 2020 Goals Using Historical Method

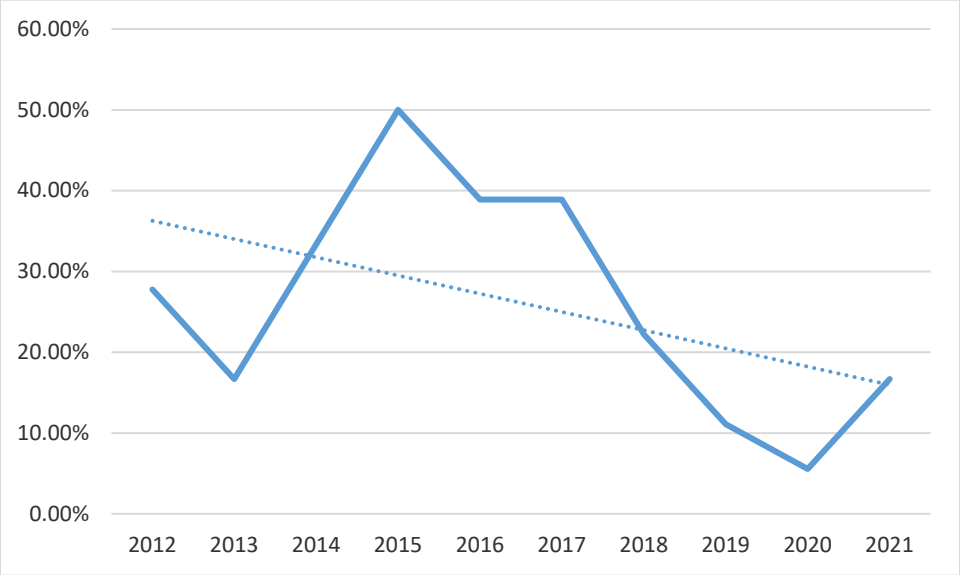
Work Center	Metric	2021 Performance	2020 Goals
Bemidji	SAIDI	30.32	70.64
	SAIFI	0.46	1.26
	CAIDI	66.03	56.06
Crookston	SAIDI	85.67	69.33
	SAIFI	1.13	1.19
	CAIDI	76.08	58.26
Fergus Falls	SAIDI	76.49	66.97
	SAIFI	1.15	1.11
	CAIDI	66.44	60.33
Morris	SAIDI	72.82	55.78
	SAIFI	1.05	1.01
	CAIDI	69.14	55.23
All MN Customers	SAIDI	65.78	64.95
	SAIFI	0.95	1.13
	CAIDI	65.78	57.48

Shaded cells in Table 5 indicate reliability goals that were not met comparing 2021 actuals to 2020 goals. While the Department notes that this comparison is not required given the new benchmarking approach the Commission adopted in Docket No. E017/M-21-225, it does provide Commission staff, Commissioners, and other interested parties a point of reference for OTP's actual 2021 reliability results compared to historical goals. Perhaps the most interesting comparison the Department's review identified is Otter Tail's reliability performance improved in 2021 relative to 2020. Figure 1 summarizes this information.

Figure 1: 2021 Reliability Performance Compared with 2020 Goals Using Minnesota Rules Approach (2012 -2021)

[2] Minnesota Public Utilities Commission Minutes dated May 2, 2022, at page 3.

[3] The Department notes that SAIDI = SAIFI * CAIDI.



The Department notes the Company's reliability performance improved relative to meeting historical goals improved by 11 percent from 2020 to 2021.

The Department acknowledges OTP's fulfillment of the requirements of Minnesota Rules, part 7826.0500, subp. 1A, B, and C.

2. Storm-Normalization Method

OTP calculated its 2021 SAIDI, SAIFI, and CAIDI indices using the IEEE 2.5 beta method for storm normalization. OTP reported that, under the IEEE 2.5 beta method, two days met the criteria to be considered a Major Event Day (MED) on its entire system. Only one of those MED's affected its Minnesota jurisdiction reliability results – October 9, 2021.[4] OTP also noted that the Company's new interruption monitoring system (IMS) was discovered to have a calculation issue and corrections were performed by the manufacturer.

The Company restated its actual reliability results for 2019 through 2021 in the filing.

The Department acknowledges OTP's fulfillment of the requirements of Minnesota Rules, part 7826.0500, subp. 1D.

[4] A downed 115 kV line north of Fergus Falls caused a 4–5-hour interruption in Fergus Falls.

3. Action Plan to Improve Reliability

OTP provided detailed information regarding its internal process for meeting its 2022 reliability goals.[5]

OTP's action plan consisted of an update to past and continuing efforts. The Company noted that, "Overall system improvements will be realized over longer periods of time."

The Department notes that in OTP's Integrated Distribution Plan filing, Docket No. E017/M-21-339, the Company indicated that it expects to greatly increase the amount its spending on age-related equipment replacements in the next few years, which may help system reliability in the future.

The Department acknowledges OTP's fulfillment of the requirements of Minnesota Rules, part 7826.0500, subp. 1E.

4. Bulk Power Supply Interruptions

OTP reported that its customers endured three interruptions to the Minnesota bulk power supply facility in 2021, but none of those bulk power supply interruptions occurred on Otter Tail's system.

- On January 15, strong winds and ice caused transmission lines to gallop which resulted in several failures in the Appleton MRES 115Kv Substation. Interruptions in the area lasted over 210 minutes.
- On June 15, a transmission line originating in Minnekota Power Cooperative's Thief River Falls substation went to lockout. Several area communities experienced interruptions more than 90 minutes.
- On June 30, a lightning arrestor at Great River Energy's Graceville's 115 kV substation failed which led to an outage in excess of 50 minutes to the communities of Dumont and Wheaton.

The Department acknowledges OTP's fulfillment of the requirements of Minnesota Rules, part 7826.0500, subp. 1F.

5. Major Service Interruptions

On December 18, 2020, the Commission granted OTP a variance to Minnesota rule 7826.0500 Subpart 1g, which requires Ottertail to provide a copy of each report filed under Minnesota Rules, part 7826.0700. Instead, OTP provided a summary table that includes the information contained in the reports.

[5] Annual Report, p. 16.

The Company reported 13 major service interruptions in 2021, compared to 21 in 2020. The largest major service interruption affected approximately 6,118 customers. OTP stated that the length of the outage, which began approximately at 8:08 p.m. on June 15 to 1:07 a.m. on June 16, 2021, varied between 1 hour and 15 minutes for some customers and 4 hours and 59 minutes for others.

The Department acknowledges OTP's fulfillment of the requirements of Minnesota Rules, part 7826.0500, subp. 1G as varied by the Commission.

6. Worst Performing Circuit

OTP identified the worst performing feeder in each work center, including its SAIDI, SAIFI, CAIDI, and MAIFI, the major causes of each feeder's outages, and the remedial measures planned or taken by the Company. The Company indicated that it will be determining its worst performing feeder based on MAIFI in the future.

The Department notes that, according to OTP's annual reports over the years, there is no apparent trend in terms of outage causes or continuing poor performance for any particular feeder. The Department uses historical data to identify potential areas of concerns regarding any feeders that appear multiple times as a worst performing feeder. After reviewing 15 years of historical data, the Department concludes that there is no concern with any specific feeder at this time.

The Department acknowledges OTP's fulfillment of the requirements of Minnesota Rules, part 7826.0500, subp. 1H.

7. Compliance with ANSI Voltage Standards

OTP provided a table listing the feeders and number of known occurrences where the voltage fell outside the American National Standards Institute (ANSI) voltage range B in 2021. OTP noted that most of the feeders with numerous occurrences were feeders serving a single large customer with a very large load (mostly pipelines). The Department observes no significant trend regarding this metric.

The Department acknowledges OTP's fulfillment of the requirements of Minnesota Rules, part 7826.0500, subp. 1I.

8. Work Center Staffing Levels

OTP provided information on staffing levels by work center as of December 31, 2020. The following table summarizes total staffing levels over the past 14 years.

Table 6: OTP Work Center Staffing Levels (2012 – 2021)

Year	Field	Office	Total
2012	107	33	140
2013	109	33	142
2014	107	33	140
2015	114	29	143
2016	116	32	148
2017	111	43	154
2018	123	39	162
2019	122	43	165
2020	121	45	166
2021	90	40	90

The Company explained that it refined the calculation for estimating the work center staffing levels in this year's report. The consolidation of the Minnesota-based facilities in the Milbank and Wahpeton Work Centers created a situation in which Otter Tail elected to include only the number of staff that work on Minnesota-jurisdictional investment in the revised Morris and Crookston work centers. In other words, the decrease in work center staffing between 2020 and 2021 is the result of an accounting change. Operationally the number of staff available did not change.

While the decrease may look striking initially, the change is based on an improved allocation of labor-related resources. Staffing levels is another long-term reliability issue. The Department reserves judgement on this issue until the Company has provided additional information in subsequent annual reports.

The Department acknowledges OTP's fulfillment of the requirements of Minnesota Rules, part 7826.0500, subp. 1J.

9. Other Information

This section of OTP's Annual Report[6] provided updates on continuing developments from the Company's use of the Interruption Monitoring System (IMS). Specifically, OTP reported that:

- OTP continues to install wireless power quality monitors in problem areas as part of the IMS rollout. These additional monitors have helped the Company monitor, identify, and analyze issues in the field.

[6] Annual Report, pages 29-31.

- Regarding vegetation management, OTP's NextGen IMS and the use of power quality meters will continue to provide optimized and focused deployment of vegetation management and maintenance resources to problem areas. Vegetation management is a particular problem for the Company given its low customer density.

- Otter Tail will be implementing an Outage Management System (OMS) in 2022. The Company's goal is to improve response and restoration times (CAIDI) by improving the presentation and organization of outage data for Otter Tail field staff.

- A new initiative to improve reliability, customer engagement and business efficiency named SIRI. The proposal is discussed in OTP's 2021 Integrated Distribution Planning filing (Docket No. E017/RP-21-339).

The Department appreciates OTP's efforts and additional information and acknowledges OTP's fulfillment of the requirements of Minnesota Rules, part 7826.0500, subp. 1K.

D. RELIABILITY STANDARDS

The Commission set Otter Tail's 2021 statewide reliability and work-center standards at the IEEE benchmarking second quartile for medium utilities in its Order dated March 2, 2022, in Docket No. E017/M-21-225. This Commission decision represented a departure from the reliability performance standards delineated in Minnesota Rules, part 7826.0600. The Commission adopted the different annual reliability performance benchmarks calculated by the IEEE as its performance goals for the different utilities. The Department also provides the Company's results from 2020 using this approach to provide some additional background.

1. Results for 2020 Using IEEE Approach

Table 7 below compares OTP's Corrected 2020 performance with the 2020 IEEE median normalized results for medium sized utilities consistent with the approach the Commission identified in its recent Order.

Table 7: Corrected OTP 2020 Reliability Performance for Minnesota Jurisdiction Compared to 2020 IEEE Results

Reliability Metric	Actual Performance	IEEE Median Normalized Medium Sized Utility Results	Would Goal Have Been Met?
SAIFI	1.07	0.98	no
SAIDI	80.66	128	yes
CAIDI	75.19	123	yes

This ex-post 2020 comparison places Otter Tail's reliability efforts in a much better light when compared to the historical method. The Company would have met two of the three reliability goals for its Minnesota jurisdiction.

2. Proposed Goals for 2021

The Commission's current approach identifies the various IEEE calculated reliability benchmarks as the goals for the Minnesota's three investor-owned utilities (IOUs). Table 8 compares OTP's 2021 reliability results with the IEEE 2020 results. The IEEE 2020 results only serve as a proxy in this comparison for the yet to be calculated 2021 IEEE reliability results.

Table 8: Minnesota Jurisdiction 2021 Actual Reliability Compared to 2020 IEEE Results

Reliability Metric	Actual Performance	2020 IEEE Median Normalized Medium Sized Utility Results	Would Goal Have Been Met?
SAIFI	0.95	0.98	yes
SAIDI	65.78	128	yes
CAIDI	69.61	122	yes

As the above table illustrates , the Company could meet the Commission's 2021 reliability goals at the service territory-wide level if the 2021 IEEE benchmark results remain constant or do not improve. Given that this comparison is something of a hypothetical, the Department will not provide work-center level information until the Company provides the actual 2021 IEEE results in a supplemental filing sometime in August 2022.

E. ANNUAL SERVICE QUALITY REPORT

Minnesota Rules, part 7826.1300 requires each utility to file the following information:

1. Meter Reading Performance (7826.1400),
2. Involuntary Disconnection (7826.1500),
3. Service Extension Response Time (7826.1600),
4. Call Center Response Time (7826.1700),
5. Emergency Medical Accounts (7826.1800),
6. Customer Deposits (7826.1900), and
7. Customer Complaints (7826.2000).

1. Meter Reading Performance

The following information is required for reporting on meter reading performance by customer class:

A. the number and percentage of customer meters read by utility personnel;

B. the number and percentage of customer meters self-read by customers;
C. the number and percentage of customer meters that have not been read by utility personnel for periods of 6 to 12 months and for periods of longer than 12 months, and an explanation as to why they have not been read; and
D. data on monthly meter reading staffing levels by work center or geographical area.

OTP provided detailed meter reading information, including information on its monthly meter reading staffing levels. Table 9 summarizes OTP's meter reading statistics.

Table 9: Meter-Reading Performance 2012 - 2021

	Percent Read by OTP	Percent Read by Customer	Percent Not Read
2012	95.9%	2.1%	2.0%
2013	95.8%	1.9%	2.3%
2014	95.9%	1.8%	2.4%
2015	95.9%	1.7%	2.4%
2016	96.4%	1.5%	2.2%
2017	96.4%	1.5%	2.2%
2018	97.3%	1.5%	1.2%
2019	97.5%	1.3%	1.2%
2020	97.1%	1.3%	1.6%
2021	97.0%	1.4%	1.6%

The Department notes that OTP has improved its meter-reading performance over the years measured, but the rate of its improvement has flattened over the past several years, albeit at a high level.

Minnesota Rules, part 7826.0900, subp. 1 requires that at least 90 percent of all meters during the months of April through November and at least 80 percent of all meters during the months of December through March are read monthly. The Company's information reflects that it read at least 95 percent of all meters each month during 2021. According to OTP, there were 23 meters that were not read for a period of 6-12 months in 2021. This compares to 46 meters that were not read in 2020. This decrease is likely due to the lessening of risk associated the COVID-19 pandemic and safety rules that did not allow employees to enter living quarters or other areas of concern in 2021. Additionally, there were no meters that were not read for a period of greater than 12 months.

The Company reported that it maintained an average of approximately 52 meter-reading customer service representatives in 2021. This number declined from 72 reported in 2020. Like the decline in field personnel discussed earlier, this change was the result of improve accounting practices. OTP also uses third parties to read meters in select cities within the Company's service territory.

The Department acknowledges OTP's fulfillment of the requirements of Minnesota Rules, part 7826.1400.

2. Involuntary Disconnections

The following information is required for reporting on involuntary disconnection of service by customer class and calendar month:

A. the number of customers who received disconnection notices,
B. the number of customers who sought cold weather rule protection under Minnesota Rules 7820 and the number who were granted cold weather rule protection,
C. the total number of customers whose service was disconnected involuntarily and the number of these customers restored to service within 24 hours, and
D. the number of disconnected customers restored to service by entering into a payment plan.

The following table summarizes residential customer disconnection statistics reported by OTP in its annual reports.

Table 10: Residential Customer Involuntary Disconnection Information

	Received Disconnect Notice	Sought CWR Protection	Granted CWR Protection	% Granted	Disconnected Involuntarily	Restored within 24 Hours	Restored by Entering Payment Plan
2012	39,912	2,139	2,137	99.9%	745	558	29
2013	39,913	1,788	1,776	99.3%	745	644	23
2014	44,894	1,430	1,424	99.6%	794	619	104
2015	49,185	1,130	1,125	99.6%	629	232	69
2016	49,368	932	928	99.6%	924	301	42
2017	48,421	817	814	99.6%	1,044	415	33
2018	67,015	659	658	99.9%	1,088	428	32
2019	56,257	441	398	90.3%	317	146	27
2020	15,677	121	82	68%	59	16	17
2021	31,116	360	292	81%	728	33	78

OTP reported that 31,116 disconnection notices were sent to residential, small commercial and large commercial customers in 2021, 28,624 being for residential customers. This number increased significantly in 2021 with the resumption of sending disconnection notices in June 2021 after the moratorium instituted during the COVID-19 pandemic lapsed. For example, residential disconnection notices increased by over 100% between 2020 and 2021.

While the increases in the number of customers seeking Cold Weather Rule protections and being disconnected involuntarily in 2021 are concerning, the Department notes the annual number of customers in these reporting categories has been declining over the past 10 years as shown in Figures 2 and 3.

Figure 2: Number of Customers Seeking Cold-Weather Rule Protection (2012 -2021)

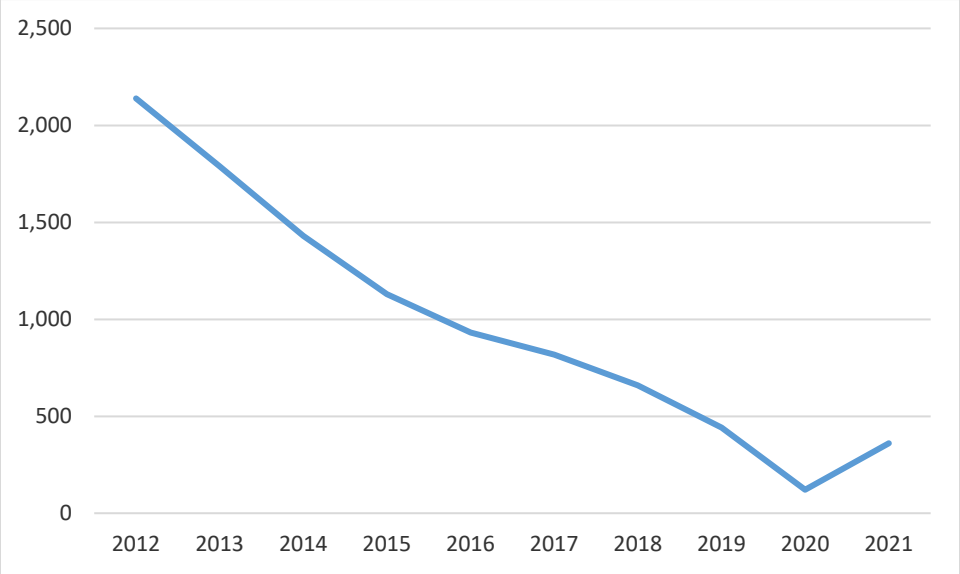
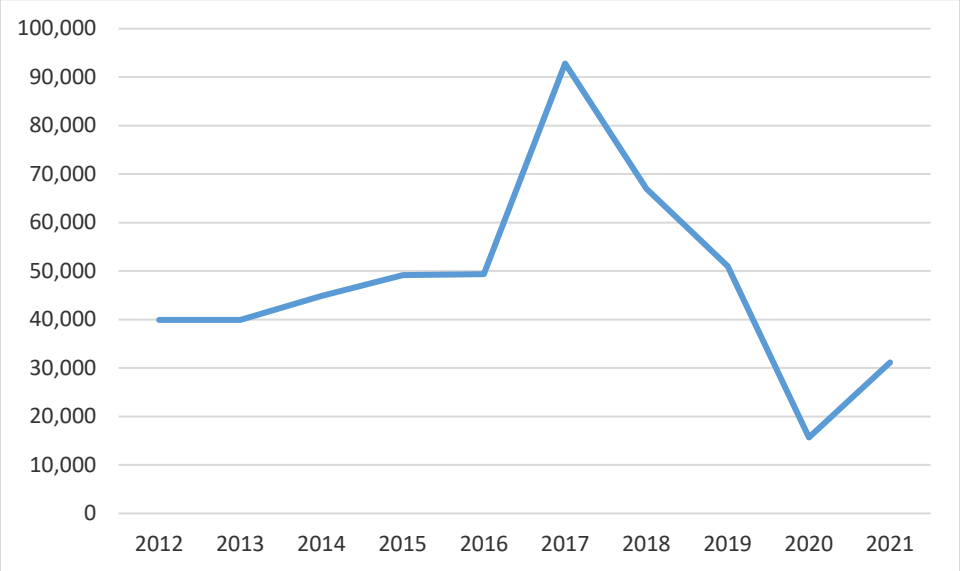


Figure 3: Number of Customers Receiving Disconnection Notices (2012 -2021)



The Department acknowledges OTP's fulfillment of the requirements of Minnesota Rules, part 7826.1500.

3. Service Extension Requests

The following information is required for reporting on service extension request response times by customer class and calendar month:

A. the number of customers requesting service to a location not previously served by the utility and the intervals between the date service was installed and the later of the in-service date requested by the customer or the date the premises were ready for service; and

B. the number of customers requesting service to a location previously served by the utility, but not served at the time of the request, and the intervals between the date service was installed and the later of the in-service date requested by the customer or the date the premises were ready for service.

OTP reported the number of service extension requests received each month by customer class. In 2021, 457 customers requested service to a location not previously served. As for locations previously served, OTP reported that 1,360 of these requests were made in 2021. The Department notes that compared to 2020 the number of extension requests for locations not previously served declined by approximately 15 percent while the number of requests for previously served locations was constant. According to the Company, its new location process and software are identifying many locations with high numbers of days to complete. Otter Tail is working to resolve that issue.

The Department acknowledges that OTP has fulfilled the requirements of Minnesota Rules, part 7826.1600.

4. Call Center Response Time

The annual service quality report must include a detailed report on monthly call center response times, including calls to the business office and calls regarding service interruptions. Further, Minnesota Rules, part 7826.1200 requires that 80 percent of calls be answered within 20 seconds.

OTP provided monthly data regarding the number of incoming calls and those calls that were answered and abandoned. The Company's data indicate that an annual average of 93.26 percent of calls were answered within 20 seconds in 2021. Therefore, the Department concludes that OTP is in compliance with Minnesota Rules, part 7826.1200.

5. Emergency Medical Accounts

The reporting on emergency medical accounts must include the number of customers who requested emergency medical account status under Minnesota Statutes, section 216B.098, subd. 5, the number of applications granted, the number of applications denied, and the reasons for each denial.

OTP reported that 6 Minnesota customers requested emergency medical account status in 2021, all of whom were granted that status. The Department acknowledges OTP's fulfillment of the requirements of Minnesota Rules, part 7826.1800.

6. Customer Deposits

The reporting on customer deposits must include the number of customers who were required to make a deposit as a condition of receiving service.

Table 11 summarizes the number of customer deposits required over the past ten years. The number of customers served by OTP in Minnesota is provided for context.[7]

Table 11: Customer Deposits Required 2012 -2021

	Number of Deposits Required	Total Customers Served
2012	847	59,615
2013	895	59,849
2014	783	61,169
2015	597	60,232
2016	715	61,226
2017	698	61,568
2018	685	61,888
2019	652	62,105[8]
2020	297	61,748
2021	0	62,465

[7] Source: Otter Tail's "Minnesota Electric Utility Annual Report" filed pursuant to Minnesota Rules Chapter 7610. Annual reports are filed by Minnesota utilities on July 1 of each year.

[8] The total customers served for 2019 was taken from the Minnesota Jurisdictional 2018 Report in Docket No. 20-4 rather than the Minnesota Rules Chapter 7610 reports as the data were not yet available at the time for filing.

The Company noted that the decrease in the number of deposits has a direct correlation with the suspension of collections activities due to the COVID-19 Pandemic. The Department acknowledges OTP's fulfillment of the requirements of Minnesota Rules, part 7826.1900.

7. Customer Complaints

The reporting on customer complaints must include the following information by customer class and calendar month:

A. the number of complaints received;

B. the number and percentage of complaints alleging billing errors, inaccurate metering, wrongful disconnection, high bills, inadequate service, and the number involving service extension intervals, service restoration intervals, and any other identifiable subject matter involved in five percent or more of customer complaints;

C. the number and percentage of complaints resolved upon initial inquiry, within ten days, and longer than ten days;

D. the number and percentage of all complaints resolved by taking any of the following actions:
   (1) taking the action, the customer requested;
   (2) taking an action, the customer and the utility agree is an acceptable compromise;
   (3) providing the customer with information that demonstrates that the situation complained of is not reasonably within the control of the utility; or (4) refusing to take the action the customer requested; and

E. the number of complaints forwarded to the utility by the Commission's Consumer Affairs Office for further investigation and action.

OTP's report on customer complaints includes the required information. Table 12 contains a limited summary of OTP's customer complaint history.

Table 12: Customer Complaints Selected Summary 2012 -2021

	Number of Complaints	High Bills	Billing Error	Service Restoration	Resolved Upon Initial Inquiry	Took Action Customer Requested
2012	61	7%	11%	7%	72%	32%
2013	133	9%	17%	5%	92%	21%
2014	98	12%	11%	4%	83%	31%
2015	86	22%	22%	0%	77%	23%
2016	28	0%	14%	0%	93%	54%
2017	33	6%	16%	0%	91%	24%
2018	34	6%	0%	0%	47%	21%
2019	28	18%	0%	0%	54%	82%
2020	30	30%	0%	0%	80%	47%
2021	113	1%	58%	41%	94%	18%

Otter Tail also noted it received 7 customer complaints that were forwarded to the Commission's Consumer Affairs Office (CAO). The Company received 4 of these types of complaints in 2020.

The number of complaints in 2021 increased by 277 percent over 2020. The Company noted this increase but didn't provide an explanation as to why it occurred. The Department requests Otter Tail discuss this topic in its Reply Comments.

The Department acknowledges OTP's fulfillment of the requirements of Minnesota Rules, part 7826.2000.

E. COMPLIANCE WITH PERTINENT COMMISSION ORDERS

a. *January 28, 2020, Order in Docket No. E017/M-19-260*

The Commissions January 28, 2020 Order in Docket No. E017/M-19-260 included Attachment B, which updated the annual reporting requirements for the Utility. Attachment B required the following to be reported by OTP:

a. Non-normalized SAIDI, SAIFI, and CAIDI values;
b. SAIDI, SAIFI, and CAIDI values calculated using the IEEE 2.5 beta method;
c. MAIFI, normalized and non-normalized;
d. CEMI – at normalized and non-normalized outage levels of 4, 5, and 6;
e. The highest number of interruptions experienced by any one customer;
f. CELI – at normalized and non-normalized intervals of greater than 6 hours, 12 hours, and 24 hours;
g. The longest experienced interruption by any one customer (or feeder);

h. A breakdown of field versus office staff required;
i. Estimated restoration times;
j. IEEE benchmarking;
k. Performance by customer class; and
l. More discussion of leading causes of outages and mitigation strategies.

The Department summarizes OTP's compliance with each reporting requirement in turn.

b. Non-normalized SAIDI, SAIFI, and CAIDI values

OTP provided this information in Tables 4A and 4B on pages 11 and 12 of its Report. The following tables show the normalized and non-normalized values for SAIDI, SAIFI, and CAIDI as reported by OTP. As there was 1 major event day during 2021 these numbers are not identical.

Table 13: 2021 Normalized and Non-normalized SAIDI, SAIFI, and CAIDI

Work Center	SAIDI	SAIFI	CAIDI
Bemidji			
Non-normalized	32.94	0.47	69.42
Normalized	30.32	0.46	66.03
Crookston			
Non-normalized	85.67	1.13	76.08
Normalized	85.67	1.13	76.08
Fergus Falls			
Non-normalized	115.44	1.35	85.49
Normalized	76.49	1.15	66.44
Morris			
Non-normalized	73.71	1.07	69.21
Normalized	72.82	0.95	69.14

c. SAIDI, SAIFI, and CAIDI values calculated using the IEEE 2.5 beta method

See Table 13 above.

d. MAIFI – normalized and non-normalized

OTP provided this information on page 33 of its Annual Report. Table 14 below shows the Company's normalized and non-normalized MAIFI for 2021. There was one major event day in 2021, so these numbers are not identical.

Table 14: 2021 Normalized and Non-Normalized MAIFI

Work Center	Non-Normalized	Normalized
Bemidji	2.16	2.06
Crookston	4.48	4.48
Fergus Falls	4.42	4.17
Morris	5.9	5.85
MN Total	4.26	4.26

e. CEMI – at normalized and non-normalized outage levels of 4, 5, and 6

OTP provided this information in page 34 of its Annual Report. Regarding CEMI, the Department notes that the Company has seen an improvement in recent years as the percentage of customers experiencing five or greater outages, and customer experiencing seven or greater outages has decreased from highs in 2015 and 2016 to lows in 2020. Table 15 below shows the Company's CEMI performance for 2021 at various intervals.

Table 15: 2021 Non-Normalized and Normalized CEMI 4, 5, 6

Metric	Non-Normalized	Normalized
CEMI4	7.12%	6.96%
CEMI5	4.99%	4.99%
CEMI6	4.04%	3.48%

f. Highest number of interruptions by any one customer (or feeder, if customer level is not available)

OTP provided this information on page 34 of its Annual Report. OTP stated that the North Feeder fed from the Ottertail City Substation experienced the most interruptions and was the Fergus Falls CSC's worst performing circuit with 1 sustained and 27 momentary interruptions.

g. CELI – at intervals of greater than 6 hours, 12 hours, and 24 hours

OTP provided this information on page 34 of its Annual Report. Table 16 below shows the Company's CELI performance for 2021 at the various intervals.

Table 16: 2021 CELI at 6, 12, and 24 Hours – Non-Normalized and Normalized

Metric	Non-Normalized	Normalized
CELID – 6	1.46%	1.07%
CELID – 12	0.40%	0.00%
CELID – 24	0.00%	0.00%

h. Longest interruption experienced by any one customer

OTP provided this information on page 34 of its Annual Report. OTP stated that the Red Lake Falls East St. Hilaire Feeder experienced the longest duration interruption at 7 hours and 54 minutes due to equipment failure.

i. A breakdown of field vs office staff required

OTP provided this information on page 27 of its Annual Report. The Department previously discussed this information above and provided the information in Table 6 of these comments.

j. Estimated restoration times

OTP stated that, "it is not currently feasible for Otter Tail to estimate restoration times. Otter Tail does not have a system (such as an Advanced Distribution Management System or Outage Management System) in which to create, track, and manage estimated restoration times." [9] The Company did note that it will be installing an Outage Management System in 2022 so it may be able to report this information soon.

k. IEEE benchmarking results for SAIDI, SAIFI, CAIDI, and MAIFI

This requirement was superseded by a similar requirement in the Commission's Order dated March 2, 2022, in Docket No. E017/M-21-225.

l. Performance by customer class

Regarding performance by customer class, OTP stated that it currently does not possess the capability of monitoring reliability by customer class and only has the ability to measure reliability at feeder level. OTP stated that it has feeders with more than one class of customer on them.

[9] Annual Report, p. 34.

m. More discussion of leading causes of outages and mitigation strategies

OTP provided this information in its discussion of the reliability reporting requirements on pages 12-15 of the Annual Report and in Table 5 of the filing.

n. December 18, 2020, Order in Docket No. E017/M-20-401

1. **Ordering paragraph 5**: *The utilities must file the reliability (SAIDI, SAIFI, CAIDI, MAIFI, normalized, non-normalized) for feeders with grid modernization investments such as Advanced Metering Infrastructure [AMI] or Fault Location Isolation and Service Restoration {FLISR} to the historic five-year average reliability for the same feeders before grid modernization efforts.*
   a. This requirement is not applicable to OTP as it doesn't have AMI or FLISR installed on its system.
2. **Ordering paragraph 16**: *After consultation with Department and Commission staff, each utility must file revised categories for reporting complaint data.*
   a. OTP participated in a series of meeting organized by Commission Staff. The group agreed on certain new complaint categories which will be operational in 2022 and discussed in OTP's April 1, 2023, filing.

o. December 2, 2021, Order in Docket No. E017/M/-21-225

3. **Order paragraph 2:** *Require Minnesota Power, Otter Tail Power, and Xcel Energy to provide the following new information regarding electronic utility-customer interaction beginning with reports filed in April 2023.*
   a. It is the Department's understanding that OTP is collecting this information to report in next year's filing.
4. **Ordering paragraph 3:** *Require Minnesota Power, Otter Tail Power, and Xcel Energy to provide percentage uptime and error rate percentage information in their annual reports for the next three reporting cycles, to build baselines for web-based service metrics.*
   a. It is the Department's understanding that OTP is collecting this information to report in next year's filing.
5. **Ordering paragraph 4:** *Require Minnesota Power, Otter Tail Power, and Xcel Energy to continue to provide information on electronic utility-customer interaction such that baseline data are collected:*
   a. *Yearly total number of website visits:*
   b. *Yearly total number of logins via electronic customer communication platforms;*
   c. *Yearly total number of emails or other customer service communications by subject, including categories for communications related to assistance programs and disconnections as part of reporting under Minn. R. 7826.1700.*
   d. OTP provided this information on pages 37 and 38 of the Report and Table 12 through 14.

6. **Ordering paragraph 7:** *Require Minnesota Power, Otter Tail Power, and Xcel Energy to file public facing summaries with their annual Safety, Reliability and Service Quality Reports.*
   a. Otter Tail's 2021 Public Facing Summary was published on its website and was included in the Report.

p. *March 2, 2022, Order in Docket No. E017/M-21-225*

7. **Ordering paragraph 5:** *The Commission sets Otter Tail Power's 2021 statewide reliability standard at the IEEE benchmarking second quartile for medium utilities and sets work center reliability standards at the IEEE benchmarking for second quartile for medium utilities.*
8. **Ordering paragraph 6:** *Otter Tail must file a supplemental filing to its 2021 safety service quality and reliability report 30 days after IEEE publishes the 2021 benchmarking results. The supplemental filing must include an explanation for any standards the utility did not meet.*
9. The Company agreed to these two requirements in its Report.

III. RECOMMENDATIONS

The Department:

- recommends that the Commission accept OTP's Annual Safety Report.

- requests OTP provide a discussion in its reply comments:

  - why the number of days of job transfer or restriction and days away from work metrics are trending higher than the 10-year average and;
  - why the number of complaints in 2021 increased by 277 percent over 2020.

- will make final recommendations on the Company's Annual Service Quality Report after reviewing its reply comments.

- will provide a recommendation on the Company's Annual Service Reliability Report after reviewing the Company's future supplemental filing on IEEE benchmarking data for 2021.

COMMERCE DEPARTMENT

September 20, 2022

Will Seuffert
Executive Secretary
Minnesota Public Utilities Commission
121 7th Place East, Suite 350
St. Paul, Minnesota 55101-2147

RE: **Minnesota Department of Commerce, Division of Energy Resources – Letter Recommending Approval of 2021 Annual Service Quality Report**
Docket No. E017/M-22-159

Dear Mr. Seuffert:

In comments filed May 16, 2022, in this docket, the Minnesota Department of Commerce, Division of Energy Resources (Department) requested that Otter Tail Power Company (OTP or the Company) provide information in its reply comments regarding two topics:

- why the number of days of job transfer or restriction and days away from work metrics are trending higher than the 10-year average and;
- why the number of complaints in 2021 increased by 277 percent over 2020.

The Department also stated it would make final recommendations on the Company's Annual Service Quality Report after reviewing its reply comments.

On May 26, 2022, the Company submitted its reply comments. Regarding the trend in the number of days of job transfer or restriction away from work metric OTP explained one employee took an exceptionally long time to recover due to the employee's initial attempt to recover via self-care. As to the second issue identified, the Company stated the increase in customer complaints in 2021 was due to additional training and enhancements in its Customer Information System which simplified the complaint process.

The Department finds both responses to be adequate for its purposes and recommends the Commission approve the customer service aspect of this filing.

The Department is available to answer any Commission questions.

Sincerely,

/s/ JOHN KUNDERT
Financial Analyst

JK/ar

COMMERCE DEPARTMENT

May 26, 2022

Mr. Will Seuffert
Executive Secretary
Minnesota Public Utilities Commission
121 Seventh Place East, Suite 350
St. Paul, Minnesota 55101

RE: **Comments of the Minnesota Department of Commerce, Division of Energy Resources**
Docket No. E015/M-22-163

Dear Mr. Seuffert,

Attached are the comments of the Minnesota Department of Commerce, Division of Energy Resources (Department) in the following matter:

> Minnesota Power's Annual Safety, Reliability and Service Quality Report and Proposed SAIFI, SAIDI and CAIDI Reliability Standards for 2021.

The report was filed on April 1, 2022, by:

> Clare Rajala Vatalaro
> Regulatory Compliance Specialist
> Minnesota Power
> 30 West Superior Street
> Duluth, Minnesota 55802

The Department:

- Recommends the Commission **accept** Minnesota Power's (MP or the Company) Annual Safety Report.

- Requests MP provide a discussion in its reply comments of the following topics:
  - Staffing level changes identified by the Department's review of 2020 and 2021 actuals.
  - MP's efforts to improve the Burnett 408 feeder's reliability.
  - The significant decrease in the number of previously served customer service requests in 2021 compared to 2020.
  - The Company's efforts to improve its call center response results.

- Will make final recommendations on the Company's Annual Service Quality Report after reviewing its reply comments.

- Will provide a recommendation on the Company's Annual Service Reliability Report after reviewing the Company's future supplemental filing on Institute of Electrical and Electronics Engineers benchmarking data for 2021.

The Department is available to answer any Commission questions.

Sincerely,

/s/ JOHN KUNDERT
Financial Analyst

JK/ja
Attachment

Before the Minnesota Public Utilities Commission

Comments of the Minnesota Department of Commerce
Division of Energy Resources

Docket No. E015/M-22-163

I. BACKGROUND

Minnesota Rules 7826 (effective January 28, 2003) were developed as a means for the Minnesota Public Utilities Commission (Commission) to establish safety, reliability, and service quality (SRSQ) standards for "utilities engaged in the retail distribution of electric service to the public" and to monitor performance as measured against those standards. The rules set forth three main annual reporting requirements:

A. The annual safety report (Minnesota Rules 7826.0400);
B. The annual reliability report (Minnesota Rules 7826.0500, subp. 1); and
C. The annual service quality report (Minnesota Rules 7826.1300)

In addition to the rule requirements, the Commission issued five recent Orders with additional reporting requirements from four different proceedings. The Department lists the five Orders chronologically.

On January 28, 2020, the Commission issued its *Order Accepting Reports, Establishing Reliability Standards, and Requiring Additional Filings* in Docket No. E015/M-19-254 (January 2020 Order). In Order Point 2, the Commission included Attachment B, which contained a list of updated annual reliability reporting requirements for the three electric utilities. These requirements are discussed in more detail in Attachment 1 of these Comments.

On December 9, 2020, the Commission issued its *Order Approving Pilot Program* in Docket No. E015/M-19-766 (December 9, 2020 Order). MP committed to providing certain data in that proceeding. These requirements are listed in Attachment 2.

On December 18, 2020, the Commission issued its *Order Accepting Reports, Requiring Additional Filings, and Establishing Workshop* in Docket No. E015/M-20-404 (December 18, 2020 Order). This Order required the Company to propose a transition to the full benchmarking approach to setting reliability standards, including a discussion of the definition of work centers, benchmarking for individual work centers, and other considerations. The December 18, 2020 Order also included several Order Points relevant to Minnesota Power's instant filing, primarily related to reliability and service quality. These Order Points are listed in Attachment 3.

In its December 2, 2021, Order in Docket No. E015/M-21-230 (December 2021 Order) the Commission included additional reporting requirements for Minnesota Power. These Order Points are listed in Attachment 4.

On March 2, 2022, the Commission issued its *Order Accepting Reports and Setting 2021 Reliability Standards* also in Docket No. E015/M-21-230 (March 2022 Order). This Order also included additional reporting requirements. Those Order Points are listed in Attachment 5.

On April 1, 2022, MP submitted its SRSQ Report for the 2021 calendar year in the instant docket (Annual Report or Report).

On April 13, 2022, the Commission filed a *Notice of Comment Period* requesting parties respond to the following questions:

1. Should the Commission accept Minnesota Power's, Otter Tail Power's, and Xcel Energy's 2021 Safety, Reliability, and Service Quality Metrics reports?

2. Are the utilities' reports consistent with recent Orders and Minnesota Rules 7826 on Electric Utility Standards?

3. At what level should the Commission set the utilities' 2022 Reliability Standards?

4. Are there other issues or concerns related to this matter?

II. RESPONSE TO COMMISSION QUESTIONS AND DEPARTMENT ANALYSIS

The Department reviewed MP's Annual Report to assess compliance with Minnesota Rules 7826 and the Commission's various Orders. The Department used information from past annual reports to facilitate identification of issues and trends regarding the Company's performance.

The Department provides:

- responses to the Commission's questions;
- a summary of our review of MP's 2021 Safety, Reliability and Service Quality Reports, and
- a discussion of the Company's compliance with other Commission Orders.

A. RESPONSE TO COMMISSION QUESTIONS

1. Should the Commission Accept Minnesota Power's 2021 Safety, Reliability and Service Quality Reports?

The Department recommends the Commission accept Minnesota Power's Annual Safety report. The Department is awaiting additional information regarding the Service Quality and Reliability portions of the Company's 2022 filing before making a recommendation regarding those aspects of the filing. MP will supplement its petition sometime in the fall of 2022 with reliability goals developed using the IEEE benchmarking methodology. The Department plans to file supplemental comments regarding its review soon after the Company files that information.

2. Is Minnesota Power's 2022 Annual Report consistent with recent Orders and Minnesota Rules 7826 on Electric Utility Standards?

Yes, the Department's review concludes the Company's report is consistent with the requirements listed in the Commission's question.

3. At what level should the Commission set MP's 2022 Reliability Standards?

The Commission adopted a new approach for calculating Minnesota's reliability goals for 2021. The basis for those goals is an annual benchmarking analysis performed by the Institute of Electrical and Electronic Engineers (IEEE) Distribution Reliability Group. The Department recommends the Commission continue the current process for Minnesota Power's 2022 Reliability Standards.

4. Are there other issues or concerns related to this matter?

The Department does not have any additional concerns currently.

B. ANNUAL SAFETY REPORT

1. Summary of Minnesota Safety Standards

Minnesota Rules 7826.0400 requires the utility to file annual safety information including:

A. Summaries of all reports filed with the U.S. Occupational Safety and Health Administration and the Occupational Safety and Health Division of the Minnesota Department of Labor and Industry for the calendar year; and
B. A description of all incidents during the calendar year in which an injury requiring medical attention or property damage resulting in compensation occurred as a result of downed wires or other electrical system failures and all remedial action taken as a result of injuries or property damage.

2. 2020 Safety Performance

MP reported 18 injuries and one death in 2021. The injuries resulted in a total of 287 lost workdays, or approximately 16 days per injury. The death was the Company's first since 2010.

In 2021, MP experienced 13 property damage claims totaling $67,487. The greatest single claim was for $34,732 due to a power outage/equipment failure.

Based on its review of Minnesota Power's 2021 Safety Report, the Department concludes the Company fulfilled the requirements of Minnesota Rules 7826.0400.

C. ANNUAL RELIABILITY REPORT

Minnesota Rules 7826.0500 requires each utility to file an annual report with the following information:

1. reliability performance,
2. storm-normalization method,
3. action plan for remedying any failure to comply with the reliability standards,
4. bulk power supply interruptions,
5. major service interruptions,
6. circuit interruption data (identify worst performing circuit),
7. known instances in which nominal electric service voltages did not meet American National Standards Institute (ANSI) standards,
8. work center staffing levels, and
9. any other relevant information.

1. Reliability Performance

The following table shows the Company's 2021 reliability performance compared with the goals the Commission set in Docket No. E015/M-20-401 using the historical Minnesota Rules-based calculation.

Table 1a: MP's 2021 Reliability Performance Compared with 2020 Goals Using Historical Method

Work Center	Metric	2021 Performance	2020 Goals
Central	SAIDI[1]	94.84	98.19
	SAIFI[2]	1.20	1.02
	CAIDI[3]	79.36	96.26
Northern	SAIDI	158.19	98.19
	SAIFI	1.25	1.02
	CAIDI	126.45	96.26
Western	SAIDI	164.95	98.19
	SAIFI	1.66	1.02
	CAIDI	99.16	96.26
System	SAIDI	126.00	98.19
	SAIFI	1.34	1.02
	CAIDI	93.80	96.26

[1] SAIDI stands for System Average Interruption Duration Index.
[2] SAIFI stands for System Average Interruption Frequency Index.
[3] CAIDI stands for Customer Average Interruption Duration Index.

Shaded cells in Table 1a indicate reliability goals the Company did not meet, comparing 2021 actuals to 2020 goals. Thus, MP met 3 of the 12 reliability goals identified in the Minnesota Rules approach. While the Department notes this comparison is not required, given the new benchmarking approach the Commission adopted in Docket No. E015/M-21-230, it does provide Commission staff, Commissioners, and other interested parties a point of reference for MP's actual 2021 reliability results compared to historical goals.

For its part, Minnesota Power compared its normalized performance in 2021 to the 2020 results from the IEEE benchmarking effort. MP compared its system-wide performance metrics to the 2nd quartile of the IEEE benchmarking metrics for medium-sized utilities (with 100,000 to 1 million customers) and its work center performance metrics to the 2nd quartile of the small-sized utilities group.[4] Table 1.b provides the same information in a different format.

Table 1b: 2021 Reliability Performance Compared to 2020 IEEE Results

Work Center	Metric	2021 Performance	2020 Goals
Central	SAIDI	94.84	187
	SAIFI	1.20	1.42
	CAIDI	79.36	119
Northern	SAIDI	158.19	187
	SAIFI	1.25	1.42
	CAIDI	126.45	119
Western	SAIDI	164.95	187
	SAIFI	1.66	1.42
	CAIDI	99.16	123
System	SAIDI	126.00	128
	SAIFI	1.34	0.98
	CAIDI	93.80	123

This ex-post 2020 comparison places Minnesota Power's reliability efforts in a much better light when compared to the historical method. The Company would have met 9 of the 12 reliability goals identified.

While the IEEE 2020 results provide a useful proxy for the yet to be calculated 2021 IEEE reliability results, the Department will provide additional comments once Minnesota Power has provided the 2021 IEEE benchmarking information later this year.

Based on its review of Minnesota Power's 2020 system-wide reliability requirements reporting, the Department concludes Minnesota Power appears to have fulfilled the requirements of Minnesota Rules 7826.0500, subps. 1.A, 1.B, and 1.C.

[4] Report at page 16.

2. Storm-Normalization Method

Minnesota Power reported both normalized and non-normalized SAIDI, SAIFI, CAIDI, MAIFI,[5] and ASAI[6] metrics in its filing, beginning on page 39.

To normalize its data, MP used the IEEE 2.5 beta method, which excludes data due to major events such as large storms. To determine which singular events should be excluded from the reliability metrics data, MP compares the SAIDI for individual events to IEEE's Major Event Threshold. In cases where a storm or other event MP experienced has a greater SAIDI than the IEEE Major Event Threshold, those major events are removed from the data, and this time-period is called a Major Event Day (MED). In 2021, MP had two MEDs, which is consistent with the number of events excluded in recent years.

The non-normalized and normalized system-wide metrics MP reported are shown in the following tables:

Table 2a. Minnesota Power's 2021 System-Wide SAIDI, SAIFI, CAIDI, MAIFI, and ASAI Metrics, Normalized and Non-Normalized

	MP's 2021 System-Wide Performance, Non-Normalized	MP's 2021 System-Wide Performance, Normalized (IEEE 2.5 beta method)
SAIDI (in minutes)	150.76	126.00
SAIFI (# of outages)	1.45	1.34
CAIDI (outage min/customer)	103.68	93.80
MAIFI (outage min/customer)	4.42	4.07
ASAI (percentage system availability)	99.97%	99.98%

Table 2b. Minnesota Power's 2021 SAIDI, SAIFI, CAIDI, MAIFI, and ASAI Metrics, Normalized and Non-Normalized for its Central Work Center

	MP's 2021 Performance, Non-Normalized	MP's 2021 Performance, Normalized (IEEE 2.5 beta method)
SAIDI (in minutes)	116.14	94.84
SAIFI (# of outages)	1.33	1.20
CAIDI (outage min/customer)	87.13	79.36
MAIFI (outage min/customer)	4.17	3.73
ASAI (percentage system availability)	99.98%	99.98%

[5] MAIFI is defined as Momentary Average Frequency Index
[6] ASAI is defined as Average Service Availability Index.

Table 2c. Minnesota Power's 2021 SAIDI, SAIFI, CAIDI, MAIFI, and ASAI Metrics, Normalized and Non-Normalized for its Northern Work Center

	MP's 2021 Performance, Non-Normalized	MP's 2021 Performance, Normalized (IEEE 2.5 beta method)
SAIDI (in minutes)	169.43	158.19
SAIFI (# of outages)	1.28	1.25
CAIDI (outage min/customer)	132.26	126.45
MAIFI (outage min/customer)	3.48	3.48
ASAI (percentage system availability)	99.97%	99.97%

Table 2d. Minnesota Power's 2021 SAIDI, SAIFI, CAIDI, MAIFI, and ASAI Metrics, Normalized and Non-Normalized for its Western Work Center

	MP's 2021 Performance, Non-Normalized	MP's 2021 Performance, Normalized (IEEE 2.5 beta method)
SAIDI (in minutes)	203.45	164.95
SAIFI (# of outages)	1.77	1.66
CAIDI (outage min/customer)	114.98	99.16
MAIFI (outage min/customer)	5.39	5.02
ASAI (percentage system availability)	99.96%	99.97%

The Department acknowledges MP fulfilled the requirements of Minnesota Rules 7826.0500, subp. 1.D.

3. Action Plan to Improve Reliability

The Company hired three additional assistant engineers in the past five years to work on processes and tools related to improving distribution reliability. They are working on several projects:

- A preventive maintenance program for MP's distribution system;
- A new tool for linemen – an application that allows lineman to inspect and address issues while out in the field, and
- Ongoing inspection of distribution assets by MP employees.

The Department acknowledges MP fulfilled the requirements of Minnesota Rules 7826.0500, subp. 1.E.

4. Bulk Power Supply and Major Service Interruptions

Minnesota Rules 7826.0500, subp. 1.F requires utilities to report information on each interruption to a bulk power supply facility during the calendar year. Minnesota Rules 7826.0500, subp. 1.G requires utilities to submit a copy of each major service interruption report submitted to the Commission's Consumer Affairs Office (CAO).[7] The Commission's December 18, 2020 Order granted all three utilities a variance to Minnesota Rules 7826.0500, subp. 1.G; in lieu of these report copies, each utility may simply submit a summary table of the reports in its annual SRSQ Report.

Minnesota Power identified five bulk power interruptions. According to the Company, none of the five interruptions met the definition of "major service interruption" provided in Minnesota Rules 7826.0200, subp. 7.[8]

Based on its review of Minnesota Power's 2021 bulk power supply facility reliability reporting metrics, the Department concludes the Company appears to have fulfilled the requirements of Minnesota Rules 7826.0500, subps. 1.F and 1.G.

5. Worst Performing Circuit

Until last year's SRSQ (2021 covering calendar year 2020), the Company considered its entire service territory to be one work center and would report the four worst performing feeders (two urban and two rural) for its entire system. Like last year's filing, in the instant filing, MP reported the four worst-performing feeders (two urban and two rural) for each of its three work centers, for a total of 12 feeders. The Department summarizes the 2021 information in Table 3 (following page).

The Department notes:

- The highest SAIDI results were for feeders located in the Northern work center in both the urban and rural settings.
- The highest CAIDI results were for a feeder located in an urban area in the Central work center and in a rural area in the Northern work area.
- The Burnett 408 feeder had the highest SAIDI for a rural feeder in the Central work center for the second year in a row

The Department reviewed MP's historical data for worst-performing feeders and notes none of the feeders identified in the Report appear to present recurring reliability issues, except perhaps the Burnett 408 feeder. The Department requests the Company discuss its efforts to improve reliability on the Burnet 408 feeder in its Reply Comments.

[7] Minnesota Rules 7826.0700 requires electric utilities to submit major service interruption reports to the Commission's CAO.

[8] "Major service interruption" means an interruption of service at the feeder level or above and affecting 500 or more customers for one or more hours.

Table 3. Summary of Minnesota Power's 2021 Worst-Performing Feeders in Urban Areas in Central, Northern, and Western Work Centers

	Criteria	Work Center	Circuit	# of Customers	SAIDI	SAIFI	CAIDI
Urban	High SAIDI	Central	Lake Superior Paper 224	39	559.44	2.13	262.87
		Northern	St. Croix 1	162	877.62	3.07	286.07
		Western	Eagle Valley 517	8	775.75	7.75	100.10
	High CAIDI	Central	Ridgeview 252	3045	212.94	1.89	112.84
		Northern	Eveleth 1	1050	299.11	4.41	67.88
		Western	Little Falls 1	934	303.27	0.02	3.15
Rural	High SAIDI	Central	Burnet 408	362	610.23	4.14	147.40
		Northern	Nashwauk 314	6	660.00	1.00	660.00
		Western	Pepin Lake 514	264	809.75	5.23	154.80
	High CAIDI	Central	Four Corners 215	956	263.24	2.54	103.69
		Northern	International Falls 1	1169	553.90	1.91	290.11
		Western	Gull Lake 1	1125	473.49	2.64	179.05

The Department acknowledges MP fulfilled the requirements of Minnesota Rules 7826.0500, subp. 1.H.

6. Compliance with American National Standards Institute *Voltage Standards*

MP provided a table listing the feeders and number of known occurrences where the voltage fell outside the American National Standards Institute (ANSI) voltage range B in 2021 (24 total). The Department observes no significant trend regarding this metric.

The Department acknowledges MP fulfilled the requirements of Minnesota Rules 7826.0500, subp. 1.I.

7. Work Center Staffing Levels

Minnesota Power also provided work center staffing data, including the number of full-time employees, in 2021 in Table 11 on page 52 of the filing. The Department compares the Company's metrics for 2020 and 2021 in the following tables:

Table 4a. Comparison of Minnesota Power's 2020 and 2021 Central Work Center Staffing Levels

Description	2020	2021	Annual Percentage Change
Line Operations Field Workers - Line	45	46	2%
Line Operations Field Workers - Substation	9	9	0%
Line Operations Support - OPS	9.5	1	-84%
Line Operations Support – Line	9	9	0%
Line Operations Support – Fleet	8	7	-13%
Line Operations Support – Substation	1	1	0%
Engineering Support - Distribution	17	19	12%
Engineering Support -Meters	8	13	63%
Engineering Support -GIS	8	8	0%

Table 4b. Comparison of Minnesota Power's 2020 and 2021 Northern Work Center Staffing Levels

Description	2020	2021	Annual Percentage Change
Line Operations Field Workers - Line	22	26	15%
Line Operations Field Workers - Substation	8	7	-13%
Line Operations Support - OPS	8	1	-88%
Line Operations Support – Line	1	1	0%
Line Operations Support – Fleet	3	3	0%
Line Operations Support – Substation	1	1	0%
Engineering Support - Distribution	6	7	17%
Engineering Support -Meters	1	1	0%
Engineering Support -GIS	1	1	0%

Table 4c. Comparison of Minnesota Power's 2020 and 2021 Western Work Center Staffing Levels

Description	2020	2021	Annual Percentage Change
Line Operations Field Workers - Line	26	30	15%
Line Operations Field Workers - Substation	5	5	0%
Line Operations Support - OPS	8	1	-88%
Line Operations Support – Line	2	2	0%
Line Operations Support – Fleet	3	3	0%
Line Operations Support – Substation	0	0	Not applicable
Engineering Support - Distribution	7	7	0%
Engineering Support -Meters	4	4	0%
Engineering Support -GIS	1	1	0%

Table 4d. Comparison of Minnesota Power's 2020 and 2021 Common Staff Between Work Centers Staffing Levels

Description	2020	2021	Annual Percentage Change
Line Operations – System Operations	18	18	0%
Line Operations – Veg. Management	3	3	0%
Engineering Support - Transmission	6	6	0%
Engineering Support -Substation	13	13	0%
Contractors – Line	19.23	22	14%
Contractors - Groundline	1	2	100%
Vegetation	50	75	50%

The Company's staffing levels appear to be consistent between 2020 and 2021 except for:

- Line operations support - operations planning and scheduling employees which have decreased by over 80% in all three work centers.
- Engineering support – meters staff in the Central work center which increased by 63%.
- Vegetation management contractors – that have increased by approximately 50%.

The Department asks Minnesota Power to discuss the staffing level changes from 2020 and 2021 for the three job classifications listed above.

Based on its review of Minnesota Power's 2020 work center reliability requirements reporting, the Department concludes that Minnesota Power appears to have fulfilled the requirements of Minnesota Rules 7826.0500, subp. 1.J.

8. Other Information

This section of MP's Annual Report[9] provided information regarding the Company's normalized and non-normalized results by work center for the following metrics:

- CEMI +3 to +6;
- CELI for 6, 12 and 24 hours, and
- Estimated Time of Restoration Time (ETR).

Given this is the first year the Company provided this information and this information was required by the Commission's January 28, 2020, Order, the Department discusses this topic further in its compliance review regarding that Order in a subsequent section of these comments.

The Department appreciates MP's efforts and additional information and acknowledges MP fulfilled the requirements of Minnesota Rules 7826.0500, subp. 1.K.

D. RELIABILITY STANDARDS FOR 2021

The Commission set MP's 2021 statewide reliability standards at the IEEE benchmarking second quartile for medium utilities in its Order dated March 2, 2022, in Docket No. E015/M-21-230. The Commission also set MP's and work center reliability standards at the IEEE benchmarking second quartile for small utilities.[10] MP will provide that information in a filing this fall after it receives the 2021 IEEE benchmarking information. The Department will review the Company's 2021 actuals and MP's Commission-approved IEEE 2021 benchmarking results in a set of supplemental comments.

C. ANNUAL SERVICE QUALITY REPORT

Minnesota Rules 7826.1300 requires each utility to file the following information:

1. Meter Reading Performance (7826.1400),
2. Involuntary Disconnection (7826.1500),
3. Service Extension Response Time (7826.1600),
4. Call Center Response Time (7826.1700),

[9] Annual Report, pages 52-54.
[10] This Commission decision represented a departure from the reliability performance standards delineated in Minnesota Rules 7826.0600.

5. Emergency Medical Accounts (7826.1800),
6. Customer Deposits (7826.1900), and
7. Customer Complaints (7826.2000).

1. Meter Reading

The following information is required for reporting on monthly meter reading performance by customer class:

A. the number and percentage of customer meters read by utility personnel;
B. the number and percentage of customer meters self-read by customers;
C. the number and percentage of customer meters that have not been read by utility personnel for periods of 6 to 12 months and for periods of longer than 12 months;
D. data on monthly meter reading staffing levels, by work center or geographical area.

Minnesota Power reported on Company-read versus Customer-read meter readings on pages 55 and 56 of its filing.

Table 5: Meter-Reading Performance 2012 - 2021

	Company Read	Customer Read	Customer Read (%)
2012	132,506	74	0.06%
2013	132,705	19	0.01%
2014	133,647	32	0.02%
2015	143,887	67	0.05%
2016	149,832	73	0.05%
2017	149,991	73	0.05%
2018	150,069	73	0.05%
2019	150,157	75	0.05%
2020	153,075	1,921	1.24%
2021	154,705	842	0.54%

The 2020 results are likely attributable to the COVID-19 related restrictions. The good news is the number of customer-read meters continue trending downwards in 2021.

Minnesota Rules 7826.0900, subp. 1 requires monthly readings for at least 90% of all meters during the months of April through November and at least 80% of all meters during the months of December through March. The Company reported it read at least 94% of all meters each month during 2021. According to MP, there were 50 meters that were not read for a period of 6-12 months in 2021. This compares to 132 meters that were not read for a period of 6-12 months in 2020. This decrease is likely due to the lessening of risk associated the COVID-19 pandemic. Additionally, there were no meters that were not read for a period of greater than 12 months.

The Company reported it maintained an average of approximately 5.4 meter-reading customer service representatives in 2021. This number declined from 6 reported in 2020.

The Company also included a discussion concerning the composition of its meters by technology. MP has retired all its completely mechanical meters.

Based on its review, the Department concludes MP met the reporting requirements of Minnesota Rules 7826.1400.

2. Involuntary Disconnections

The following information is required for reporting on involuntary disconnection of service by customer class and calendar month:

A. the number of customers who received disconnection notices,
B. the number of customers who sought cold weather rule protection under Minnesota Statutes, sections 216B.096 and 216B.097, and the number who were granted cold weather rule protection,
C. the total number of customers whose service was disconnected involuntarily, and the number of these customers restored to service within 24 hours, and
D. the number of disconnected customers restored to service by entering into a payment plan.

In 2021, MP sent 16,518 disconnection notices to residential customers, 988 notices to commercial customers, and 17 notices to industrial customers. On August 13, 2020, the Commission ordered suspension of disconnections for residential customers facing financial hardship (Docket No. E,G999/CI-20-375). On May 26, 2021, the Commission issued an Order allowing for the resumption of disconnections on August 2, 2021 in that same docket. The information for 2020 and 2021 in Table 6 reflect those Commission actions.

A total of 21,295 residential customers sought and received Cold Weather Rule (CWR) protection. MP involuntarily disconnected a total of 949 residential customers, 68 commercial customers, and 2 industrial customers. A total of 537 residential customers, or 57%, were restored within 24 hours. A total of 517 residential customers had service restored upon entering a payment plan.

Table 6: Residential Customer Involuntary Disconnections 2016-2021

	Received Disconnect Notice	Sought CWR Protection	% Granted	Disconnected Involuntarily	Restored within 24 hours	Restored by Entering Payment Plan
2016	12,191	2,916	100%	1,933	213	634
2017	17,454	3,475	100%	2,668	1,284	1,680
2018	18,961	4,311	100%	2,492	1,219	1,592
2019	16,049	4,232	100%	2,138	1,056	1,357
2020	5,925	2,845	100%	298	149	206
2021	16,518	1,295	100%	949	537	517

Based on its review of Minnesota Power's 2021 involuntary disconnection service quality reporting requirements, the Department concludes MP met the reporting requirements of Minnesota Rules 7826.1500.

3. Service Extension Requests

The following information is required for reporting on service extension request response times by customer class and calendar month:

A. the number of customers requesting service to a location not previously served by the utility and the intervals between the date service was installed and the later of the in-service date requested by the customer or the date the premises were ready for service; and

B. the number of customers requesting service to a location previously served by the utility, but not served at the time of the request, and the intervals between the date service was installed and the later of the in-service date requested by the customer or the date the premises were ready for service.

For new service extension requests, MP reported a total of 1,050 residential installations, 382 commercial installations, 4 industrial installations, and 21 municipal installations. MP met the requested in-service date for residential installations 81% of the time, its commercial installations 79% of the time, its industrial installations 25% of the time, and its municipal installations 76% of the time. MP stated the primary reasons for not meeting an in-service date in 2021 were failures to update dates and customer not ready.

Table 7: New Service Extension Requests Combined Residential, Commercial, Industrial, & Municipal 2016-2021

	Total Number of Installations	Request Date Met	% Request Date Met
2016	1,476	835	56.6%
2017	1,747	1,338	76.6%
2018	2,118	1,374	64.9%
2019	1,314	525	40.0%
2020	1,670	902	54.2%
2021	1,457	1,165	80.0%

The Company's 2021 results for this metric overall improved significantly from 2020 (80% versus 54% completed on time). The Department appreciates MP's efforts in this regard.

For extension requests to a previously served location, MP reported a total of 260 residential installations, 92 commercial installations, zero industrial installations, and zero municipal installations. MP met the requested in-service date for residential installations 96% of the time and commercial installations 100% of the time. Results for industrial and municipal installations could not be calculated. MP stated the primary reasons for not meeting an in-service date in 2021 were failures to update dates and MP delay due to workload.

Table 8: Previously Served Customer Service Extension Requests: Combined Residential, Commercial, Industrial, & Municipal 2016-2021

	Total Number of Installations	Request Date Met	% Request Date Met
2016	2,652	2,463	92.9%
2017	4,563	4,032	88.4%
2018	4,544	3,940	86.7%
2019	6,535	5,893	90.2%
2020	1,964	1,669	85.0%
2021	352	342	97.2%

The Department is perplexed by the significant decrease in the number of previously served customer service requests for 2021 and asks the Company to explain the drivers for this large decrease in its reply comments.

Based on its review of Minnesota Power's 2021 service extension service quality reporting requirements, the Department concludes MP met the reporting requirements of Minnesota Rules 7826.1600.

4. Call Center Response Times

The annual service quality report must include a detailed report on monthly call center response times, including calls to the business office and calls regarding service interruptions. Minnesota Rules 7826.1200 requires utilities to answer 80% of calls made to the business office during regular business hours and 80% of all outage calls within 20 seconds.

Minnesota Power reported in 2021, the Company answered 50% of calls during business hours (7:00 am to 5:30 pm) within 20 seconds and the Company met or exceeded the 80% goal threshold in 2 out of 12 months of the year. Minnesota Power also provided a graph showing the number of business hour calls in each month compared to the percentage of calls answered within 20 seconds. Minnesota Power reported in 2020, the Company answered 49% of calls during non-business hours (5:30pm to 7:00pm) within 20 seconds.

Minnesota Power stated, as it has in past SRSQ Reports, that all calls, regardless of topic, are routed through the Company's Interactive Voice Response (IVR) unit. Calls routed to outage reporting are handled immediately through an automated system, and one option customers may select is to speak directly with a Call Center representative.

MP struggled to staff its Call Center in 2021, which contributed to its sub-standard 2021 call center response metric. In addition, the Company explained call volumes increased in June 2021 after Minnesota Power started to issue disconnection notices.

While MP's 2021 call center response results are not even close to reasonable, the Department notes staff shortages are occurring throughout Minnesota's economy and apparently Minnesota Power is not an exception. The Department recommends monitoring this situation for the next couple of years to see if the Company can respond successfully to this new post-pandemic environment. The Department also requests the Company provide an update on its efforts to restore its call center capabilities in its reply comments.

Based on its review of Minnesota Power's 2021 call center service quality reporting requirements, the Department concludes MP met the reporting requirements of Minnesota Rules 7826.1700.

5. Emergency Medical Accounts

The reporting on emergency medical accounts must include the number of customers who requested emergency medical account status under Minnesota Statutes section 216B.098, subd. 5, the number of requests granted, and the number denied, including the reasons for each denial.

MP reported 73 customers requested emergency medical account status and 73 of these requests were granted after customers provided the correct information.

Based on its review of Minnesota Power's 2021 emergency medical account status service quality reporting requirements, the Department concludes MP met the reporting requirements of Minnesota Rules 7826.1800.

6. Customer Deposits

Minnesota Power stated it refunded all deposits in 2014. The Department notes this 2014 figure has been used in each of MP's SRSQ Reports since 2014.

Based on its review of Minnesota Power's 2021 customer deposits service quality reporting requirements, the Department concludes MP met the reporting requirements of Minnesota Rules 7826.1900.

7. Customer Complaints

The reporting on customer complaints must include the following information by customer class and calendar month:

A. the number of complaints received;
B. the number and percentage of complaints alleging billing errors, inaccurate metering, wrongful disconnection, high bills, inadequate service, and the number involving service extension intervals, service restoration intervals, and any other identifiable subject matter involved in five percent or more of customer complaints;
C. the number and percentage of complaints resolved upon initial inquiry, within ten days, and longer than ten days;
D. the number and percentage of all complaints resolved by taking any of the following actions: (1) taking the action the customer requested; (2) taking an action the customer and the utility agree is an acceptable compromise; (3) providing the customer with information that demonstrates that the situation complained of is not reasonably within the control of the utility; or (4) refusing to take the action the customer requested; and
E. the number of complaints forwarded to the utility by the Commission's Consumer Affairs Office (CAO) for further investigation and action.

MP received a total of 513 customer complaints during 2021, of which approximately 91% were from residential customers, and the remaining 9% were from commercial customers. The most frequent category of complaint was "high bill complaint," which amounted to 74.46% of all complaints. A total of 30% of the complaints were resolved on the same day, 46% were resolved in less than 10 days, with the remaining 25% taking more than 10 days to resolve. A total of 27 complaints were forwarded to the Company from the Commission's CAO.

Table 9. Minnesota Power's Customer Complaint Totals 2016-2021

	Residential	Commercial	Industrial	Total
2016	388	46	0	434
2017	641	56	0	697
2018	559	71	0	630
2019	478	47	0	525
2020	485	60	0	545
2021	469	44	0	513

Based on its review of Minnesota Power's 2021 customer complaint service quality reporting requirements, the Department concludes MP has met the reporting requirements of Minnesota Rules 7826.2000.

E. COMPLIANCE WITH RELEVANT COMMISSION ORDERS

The Company identified four proceedings and five Commission Orders containing compliance or reporting requirements related to reliability or service quality:

- 2018 Annual Safety, Reliability and Service Quality Standards Report (E015/M-19-254) – ORDER ACCEPTING REPORTS, ESTABLISHING RELIABILITY STANDARDS AND REQUIRING ADDITIONAL FILINGS dated January 28, 2020.
- Reconnect Pilot Program (Docket No. E015/M-19-766) – ORDER APPROVING PILOT PROGRAM, dated December 9, 2020.
- 2019 Annual Safety, Reliability and Service Quality Standards Report (E015/M-20-404) – ORDER ACCEPTING REPORTS, REQUIRING ADDITIONAL FILINGS, AND DESTABLISHING WORKSHOP, dated December 18, 2020.
- 2020 Annual Safety, Reliability and Service Quality Standards Report (E015/M-21-230) – ORDER, dated December 2, 2021, and ORDER ACCEPTING REPORTS AND SETTING 2021 RELIABILITY STANDARDS, dated March 2, 2022.

1. 2018 SRSQ Report

The Commission's January 28, 2020 Order in Docket No. E015/M-19-254 included Attachment B, which updated the annual reporting requirements for the Company. Attachment B required MP to report the following :

a. Non-normalized SAIDI, SAIFI, and CAIDI values;
b. SAIDI, SAIFI, and CAIDI values calculated using the IEEE 2.5 beta method;
c. MAIFI, normalized and non-normalized;
d. CEMI – at normalized and non-normalized outage levels of 4, 5, and 6;
e. The highest number of interruptions experienced by any one customer;

f. CELI – at normalized and non-normalized intervals of greater than 6 hours, 12 hours, and 24 hours;
g. The longest experienced interruption by any one customer (or feeder);
h. A breakdown of field versus office staff required;
i. Estimated restoration times;
j. IEEE benchmarking;
k. Performance by customer class; and
l. More discussion of leading causes of outages and mitigation strategies.

The Department summarizes MP's compliance with each reporting requirement in turn.

a) Non-normalized SAIDI, SAIFI, and CAIDI values

MP provided this information in Figure 12 on page 44 of its Report. The following tables show the normalized and non-normalized values for SAIDI, SAIFI, and CAIDI as the Company reported. As there were two Major Event Days (MEDs) during 2021 these numbers are not identical.

Table 10: 2021 Normalized and Non-normalized SAIDI, SAIFI, and CAIDI

Description	SAIDI	SAIFI	CAIDI
Central work center			
Non-normalized	116.14	1.33	87.13
Normalized	94.84	1.20	79.36
Northern work center			
Non-normalized	169.43	1.28	132.26
Normalized	158.19	1.25	126.45
Western work center			
Non-normalized	203.45	1.77	114.98
Normalized	164.95	1.66	99.16
Overall			
Non-normalized	150.75	1.45	103.68
Normalized	126.00	1.34	93.80

b) SAIDI, SAIFI, and CAIDI values calculated using the IEEE 2.5 beta method

See Table 10 above.

c) MAIFI – normalized and non-normalized

MP provided this information on page 44 of its Annual Report. Table 11 below shows the Company's normalized and non-normalized MAIFI for 2021. There were two MEDs in 2021, so these numbers are not identical.

Table 11: 2021 Normalized and Non-Normalized MAIFI

Description	Non-Normalized	Normalized
Central WC	4.17	3.73
Northern WC	3.48	3.48
Western WC	5.39	5.02
MN Total	4.42	4.07

d) CEMI – at normalized and non-normalized outage levels of 4, 5, and 6

MP provided this information in page 52 of its Annual Report. Table 12 below shows the Company's CEMI performance for 2021 at various intervals.

Table 12: 2021 Non-Normalized and Normalized CEMI 3, 4, 5, 6 (%)

Work Center	+6	+5	+4	+3
Central				
Non-normalized	0.00%	0.47%	0.64%	14.80%
Normalized	0.00%	0.47%	0.64%	13.12%
Northern				
Non-normalized	0.00%	0.00%	4.72%	2.40%
Normalized	0.00%	0.00%	4.72%	2.39%
Western				
Non-normalized	0.00%	3.87%	3.31%	7.90%
Normalized	0.00%	3.87%	3.21%	8.00%

e) Highest number of interruptions by any one customer (or feeder, if customer level is not available)

MP provided this information on page 53 of its Annual Report by work center by work center:

- Burnett 408: 5.15 outages (Central).
- Cohasset, River Crossing: 4.48 outages (Northern).
- Sebeka 1: 5.29 outages (Western).

f) CELI – at intervals of greater than 6 hours, 12 hours, and 24 hours

MP provided this information by work center on page 53 of its Annual Report. Table 13 below shows the Company's CELI performance for 2021 at various intervals.

Table 13: 2021 CELI at 6, 12, and 24 Hours – Non-Normalized and Normalized by Work Center

Work Center	6 hr.	%	12 hr.	%	24 hr.	%
Central						
Non-normalized	1237	1.60%	41	0.05%	2	0.00%
Normalized	453	0.59%	9	0.01%	2	0.00%
Northern						
Non-normalized	2009	8.60%	1	0.00%	6	0.03%
Normalized	1307	5.59%	1	0.00%	6	0.03%
Western						
Non-normalized	2223	5.23%	601	1.41%	13	0.03%
Normalized	1485	3.49%	115	0.27%	6	0.01%

g) Longest interruption experienced by any one customer

MP provided this information by work center on page 53 of its Annual Report. Two of the outages did not affect customers as the premises on the feeders located in the Western and Northern work centers were unoccupied during the interruptions. For the Central work center, the longest customer outage duration was 2,139 minutes (35.6 hours) due to an equipment failure in a secure area.

h) A breakdown of field vs office staff required

MP provided this information on page 54 of its Annual Report. The Department previously discussed this information above and provided the information in Tables 4a through 4d of these comments.

i) Estimated time of restoration

The Company provided this information on page 64 of the Report. MP's Outage Management System estimated the accuracy of the initial estimated time of restoration (ETR) to be 87% accurate and the final ETR's to be 98% accurate.

j) IEEE benchmarking results for SAIDI, SAIFI, CAIDI, and MAIFI

This requirement was superseded by a similar requirement in the Commission's Order dated March 2, 2022, in Docket No. E015/M-21-230.

k) Performance by customer class

Minnesota Power provided this information on page 54 of the Report. Table 14 recreates this information.

Table 14 Minnesota Power's 2021 Reliability Metrics by Customer Class

		ASAI	SAIDI	SAIFI	CAIDI	MAIFI
Residential	Non-normalized	99.97%	142.30	1.37	103.53	4.17
	Normalized	99.98%	118.43	1.27	93.65	3.84
Commercial	Non-normalized	99.99%	8.32	0.08	103.53	0.24
	Normalized	99.99%	6.96	0.07	99.43	0.23
Industrial	Non-normalized	99.99%	0.14	0.00	103.53	0.04
	Normalized	99.99%	0.11	0.00	94.03	0.00

l) More discussion of leading causes of outages and mitigation strategies

MP provided this information in its discussion of factors affecting reliability reporting on pages 17 – 25 of the Annual Report. The Company discussed mitigation strategies in the grid mod section of the Annual Report on pages 26 – 34.

The Department concludes Minnesota Power appears to have fulfilled the requirements of the Commission's January 28, 2020 Order in Docket No. E015/M-19-254.

2. Reconnect Pilot Program Order – December 9, 2020, Order

On December 9, 2020, in Docket No. E015/M-19-766, the Commission approved Minnesota Power's proposal to implement its three-year Remote Reconnect Pilot Program (RRPP or Pilot). As part of this Order, the Commission directed the Company to report several performance metrics related to the Pilot in MP's Annual SRSQ Report. Minnesota Power delayed the RRPP's implementation due to the COVID-19 pandemic. The Company restarted the Pilot in June of 2021 This year's Annual SRSQ Report is the first in which Minnesota Power provided RRPP results. Table 15 summarizes the information the Company provided regarding the RRPP.

Table 15 Remote Reconnect Pilot Program 2021 Partial Year Summary

Reporting Requirement	Amount and Unit
Number of Participants	3,731 customers
Total Number of customers under the Low-Income Home Energy Assistance Program (LIHEAP)	8,486 customers/month*
Number of remote-connected participants with LIHEAP	904 customers
Number of customers who opted out of Pilot	15 customers
Estimated annual cost savings from the Pilot	($464,000)

*Average of LIHEAP customers June – December 2021

Table 16 Remote Reconnect Pilot Program Comparison of Reconnection Times 2021 Partial Year (days)

Description	Standard Process	RRPP Process	Percentage difference
Reconnection	8	6	-25%

Table 17 Remote Reconnect Pilot Program Comparison of Reconnection withing 24 Hours 2021 Partial Year

Description	Standard Process	RRPP Process	Percentage of Remote Disconnections
Reconnection	337	200	37%

The Company represented this Pilot as essentially an efficiency gain for both ratepayers and shareholders. MP would invest in more advanced meters (a capital expenditure) resulting in reduced ongoing labor costs. While the 2021 partial year results are not entirely supportive of that narrative, the differences are apparently due to timing. The Company estimated the Pilot's partial year incremental cost/benefit to be a negative $464,000 (costs were greater than benefits). MP incurred the cost of installing the new technology but did not have a full year (or two or longer) to realize the benefits associated with the investments in the new meters.

The Department concludes Minnesota Power appears to have fulfilled the requirements of the Commission's December 9, 2020 Order in Docket No. E015/M-19-766.

3. 2019 SRSQ Filing - December 18, 2020, Order

The Commission's December 2020 Order Points 14 and 16 in Docket No. E015/M-20-404 require utilities to include the following in their service quality reports:

> 14. For the two reporting cycles following the Commission's 2020 Order, each utility must report the data listed below, to the extent feasible. The Commission further specified that if a utility is unable to report the information, it must provide an explanation as to why the information is not filed and the plans for reporting the information in the future.
>
> a. Yearly total number of website visits;
> b. Yearly total number of logins via electronic customer communication platforms;
> c. Yearly total number of emails or other customer service electronic communications received; and
> d. Categorization of email subject, and electronic customer service communications by subject, including categories for communications related to assistance programs and disconnections as part of reporting under Minn. R. 7826.1700.
>
> 16. Each utility must file revised complaint categories.

a) Electronic Customer Communication – Summary 2021 Information

Minnesota Power included a discussion addressing Order Point 14 of the Commission's December 2020 Order on pages 64-65 of its Report.

Minnesota Power provided monthly page views of its website, Facebook, MyAccount, as well as the number of mobile app installations. The Department summarizes these annual figures in the table below for 2020 and 2021:

Table 18 Comparison of Minnesota Power's 2020 and 2021 Page Views and App Installations Totals

Description	2020 Results	2021 Results	Percentage Difference
Website	1,314,540	1,598,725	21.6%
MyAccount	339,242	490,667	44.6%
Mobile App Installations	6,568	8,506	29.5%
Facebook	35,111	31,686	-9.7%
Instagram	Not Provided	30,647	Not Applicable

Minnesota Power also provided a monthly summary of all emails received through the customerservice@mnpower.com email address, as well as a chart of the subject category of each email. The Department summarizes these annual figures for 2020 and 2021 in the table below:

Table 19 Comparison of Minnesota Power's 2020 and 2021 Annual Number of Emails Received and Approximate Number of Emails Received by Subject Category

Email Subject Category	**2020 (approx.)**	**2021 (approx.)**
Fuel Assistance	5,600	7,000
Billing Inquiry	1,600	1,600
Miscellaneous	1,300	2,000
Not specified	1,100	2,200
Start/Stop	1,050	700
Phone Transfer	600	1,000
ACCT Maintenance	500	800
Budget	400	500
Usage Request	300	300
Other	400	150
Payment Inquiry	Not Reported	50
Total	12,722[11]	16,927[12]

[11] Total does not equal approximate category numbers; MP's chart did not provide precise figures for each subject category but did provide a precise annual total count.
[12] See footnote 12.

The information in Table 18 demonstrates Minnesota Power is seeing significant increases in customers using its internet-based communication channels. The information in Table 19 demonstrates something similar in aggregate. The Department views these increased levels of interaction as a positive.

b) Revised Customer Complaint Categories

Minnesota Power included a discussion addressing Order Point 14 of the Commission's December 2020 Order on pages 90-91 of its Report.

The Company noted it participated in a Commission-sponsored work group. This work group met repeatedly and developed a refinement of the inadequate service complaint category. MP will begin using this revised customer complaint category in its 2023 SRSQ Annual Report which will be filed in April 2024.

The Department concludes Minnesota Power appears to have fulfilled the requirements of the Commission's December 10, 2020 Order in Docket No. E015/M-20-404.

4. 2021 Annual SRSQ Filing – December 2, 2021, Order

The Commission's December 2021 Order Points 14 and 16 in Docket No. E015/M-21-230 require utilities to include the following in its service quality report:

1) Electronic utility-customer interaction beginning with the reports filed in April 2023;
2) Percentage uptime and error rate percentage information in their annual reports for the next three reporting cycles, to build baselines for web-based services.
3) To continue to provide information on electronic utility-customer interaction such that baseline data are collected:
   a) Yearly total number of website visits;
   b) Yearly total number of logins via electronic customer communication platforms;
   c) Yearly total number of emails or other customer service electronic communications received; and
   d) Categorization of email subject, and electronic customer service communications by subject, including categories for communications related to assistance programs and disconnections as part of reporting under Minn. R. 7826.1700.
   e) Public facing summaries with their annual Safety, Reliability, and Service Quality reports.

a) *Specific Percentage Uptime and Error Rater Percentage Information*

Minnesota Power is collecting this information and will provide it in its 2023 SRSQ Annual Report which will be filed in April 2024.

b) *Percentage Uptime and Error Rate Percentage Base Data Collection*

Minnesota Power is committed to providing the Commission this information over the next three annual SRSQ reporting cycles.

c) *Continue to Provide Electronic Customer Information*

See pages 64-65 of the Annual Report and pages 24 and 25 of these comments.

d) *File Public Facing Summaries with the Annual SRSQ Report*

MP provided this information on pages 12 and 13 of its Annual Report.

The Department concludes Minnesota Power appears to have fulfilled the requirements of the Commission's December 2, 2021, Order in Docket No. E015/M-21-230.

5. 2021 Annual SRSQ Filing – March 2, 2022, Order

The Commission's March 2022 Order in Docket No. E015/M-21-230 requires Minnesota Power to include the following in its Annual Report at Order Points 2, 3, and 4.

2. The Commission sets Minnesota Power's 2021 statewide reliability standard at the IEEE benchmarking second quartile for medium utilities and set work center reliability standards at the IEEE benchmarking second quartile for small utilities.
3. Minnesota Power must file a supplemental filing to its 2021 safety, service quality, and reliability report 30 days after the IEEE publishes the 2021 benchmarking results. The supplemental filing must include an explanation for any standards the utility did not meet.
4. The Commission will establish three work centers for Minnesota Power, as described on pages 25-26 of the Company's 2020 Report.

The Department verifies Minnesota Power complied with Order Points 2 and 4 in its 2022 Annual Report. The requirement in Order Point 3 is prospective and the Company committed to provide that information as well.

The Department concludes Minnesota Power appears to have fulfilled the requirements of the Commission's March 2 2022 Order in Docket No. E015/M-21-230 to the extent possible.

III. DEPARTMENT CONCLUSIONS AND RECOMMENDATIONS

The Department:

- Recommends the Commission **accept** Minnesota Power's Annual Safety Report.

- Requests MP provide a discussion in its reply comments of the following topics:
  - Staffing level changes identified by the Department's review of 2020 and 2021 actuals.
  - MP's efforts to improve the Burnett 408 feeder's reliability.
  - The significant decrease in the number of previously served customer service requests.
  - The Company's efforts to improve its call center response results.

- Will make final recommendations on the Company's Annual Service Quality Report after reviewing its reply comments.

- Will provide a recommendation on the Company's Annual Service Reliability Report after reviewing the Company's future supplemental filing on Institute of Electrical and Electronics Engineers benchmarking data for 2021.

Attachment 1 – Summary of Commission's January 28, 2020, Order regarding MP's Reporting Requirements in Docket No. E015/M-19-254

The Commission's January 2020 Order, Order Point 2, Attachment B, Points 1-12 requires utilities to report the following reliability metrics:

1. Non-normalized SAIDI, SAIFI, and CAIDI values
2. SAIDI, SAIFI, and CAIDI, Momentary Average Interruption Frequency Index (MAIFI),[13] Customers Experiencing Multiple Interruptions (CEMI), and Customers Experiencing Lengthy Interruptions (CELI) normalized values calculated using the IEEE 1366 Standard.
3. MAIFI – normalized and non-normalized.
4. CEMI – at normalized and non-normalized outage levels of 4, 5, and 6 interruptions.
5. The highest number of interruptions experienced by any one customer (or feeder, if customer level is not available).
6. CELI – at normalized and non-normalized intervals of greater than 6 hours, 12 hours, and 24 hours.
7. The longest experienced interruption by any one customer (or feeder, if customer level is not available).
8. A breakdown of field versus office staff as required Minnesota Rules 7826.0500 subp. 1.J, including separate information on the number of contractors for each work center.
9. Estimated restoration time accuracy, using the following windows:
    i. Within -90 minutes to 0 of estimated restoration time
    ii. Within 0 to +30 minutes of estimated restoration time
10. IEEE benchmarking results for SAIDI, SAIFI, CAIDI, and MAIFI from the IEEE benchmarking working group.
11. Performance by customer class:

[13] MAIFI provides a measure of the average number of short outages—an interruption in electrical service that MP defines as lasting fewer than five minutes—that an average customer experiences in a year.

		Average System Availability Index (ASAI)	SAIDI	SAIFI	CAIDI	MAIFI
Residential	Non-normalized					
	Normalized					
Commercial	Non-normalized					
	Normalized					
Industrial	Non-normalized					
	Normalized					

If reporting by class is not yet possible, an explanation of when the utility will have this capability.

12. Causes of sustained customer outages, by work center.

Attachment 2 – Summary of Commission's December 18, 2020, Order regarding MP's Reporting Requirements in Docket No. E015/M-19-766

Minnesota Power agreed to provide the following information regarding this Pilot.

1. Number of customer participating in the remote-connect program;
2. Total number of MP customers receiving lower-income home energy assistance;
3. Number of remote-connect participants receiving low-income home energy assistance;
4. Number of customers who have opted out of the remote-connect program;
5. Estimated annual cost savings from the remote-connect program;
6. Average time to reconnect using the remote-reconnect program compared to the standard reconnection process;
7. Number of reconnections restored within 24 hours of disconnection, distinguishing between standard and remote reconnections.

Attachment 3 – Summary of Commission's December 18, 2020, Order regarding MP's Reporting Requirements in Docket No. E015/M-20-404

The Commission's December 2020 Order, Order Points 4-8 requires utilities to include the following in its reliability report:

4. The Commission granted a variance to Minn. R. 7826.0500, subp. 1, item G, applicable to all three utilities. The utilities instead were required to file a summary table that includes in the information contained in the reports, similar to Attachment G of Xcel Energy's 2019 SRSQ Filing.
5. Reliability metrics (SAIDI, SAIFI, CAIDI, MAIFI, normalized/non-normalized) for feeders with grid modernization investments such as Advanced Metering Infrastructure or Fault Location Isolation and Service Restoration to the historic five-year average reliability for the same feeders before grid modernization investments.
6. A discussion and proposal for transitioning to a full benchmarking approach for setting reliability standards. This Order Point only applies to SRSQ Reports due April 2021 covering the 2020 calendar year.
7. For service territory-wide performance, each electric utility's reliability goals are set based on the benchmarking standards released by IEEE.
    - The Commission set MP's reliability metrics at the IEEE benchmarking second quartile for medium utilities; the Commission further directed MP to make a supplemental filing to the Company's 2020 report 30 days after IEEE publishes its 2020 benchmarking results, with an explanation of any missed standards.
8. For service center level reliability metrics, each electric utility's reliability goals are set based on the traditional five-year rolling average.
    - The Commission set MP's service center reliability standards at the 2016 levels, as shown in the following table.[14]

	SAIDI	SAIFI	CAIDI
MP 2016 Standard	98.19	1.02	96.26

[14] Minnesota Power's filing states that levels were set at 2017 levels; the Department understands this to mean levels set in the 2017 SRSQ Report that covered the 2016 calendar year.

Attachment 4 – Summary of Commission's December 2, 2021, Order regarding MP's Reporting Requirements in Docket No. E015/M-21-230

The Commission's December 2021 Order, Order Points 2-4 requires utilities to include the following in its reliability report:

2. Electronic utility-customer interaction beginning with the reports filed in April 2023;
3. Percentage uptime and error rate percentage information in their annual reports for the next three reporting cycles, to build baselines for web-based services.
4. To continue to provide information on electronic utility-customer interaction such that baseline data are collected:
   a) Yearly total number of website visits;
   b) Yearly total number of logins via electronic customer communication platforms;
   c) Yearly total number of emails or other customer service electronic communications received; and
   d) Categorization of email subject, and electronic customer service communications by subject, including categories for communications related to assistance programs and disconnections as part of reporting under Minn. R. 7826.1700.
   e) Public facing summaries with their annual Safety, Reliability, and Service Quality reports.

Attachment 5 – Summary of Commission's March 2, 2022, Order regarding MP's Reporting Requirements in Docket No. E015/M-21-230

The Commission's March 2022 Order in Docket No. E015/M-21-230 require Minnesota Power to include the following in its Annual Report at Order Points 2, 3 and 4.

2. The Commission sets Minnesota Power's 2021 statewide reliability standard at the IEEE benchmarking second quartile for medium utilities and wets work center reliability standards at the IEEE benchmarking second quartile for small utilities.
3. Minnesota Power must file a supplemental filing to its 2021 safety, service quality, and reliability report 30 days after the IEEE publishes the 2021 benchmarking results. The supplemental filing must include an explanation for any standards the utility did not meet.
4. The Commission will establish three work centers for Minnesota Power, as described on pages 25-26 of the Company's 2020 Report.

COMMERCE DEPARTMENT

October 18, 2022

Will Seuffert
Executive Secretary
Minnesota Public Utilities Commission
121 7th Place East, Suite 350
St. Paul, Minnesota 55101-2147

RE: **Minnesota Department of Commerce, Division of Energy Resources – Letter Recommending Approval of 2021 Annual Service Quality Report**
Docket No. E015/M-22-163

Dear Mr. Seuffert:

In comments filed May 26, 2022, in this docket, the Minnesota Department of Commerce, Division of Energy Resources (Department) requested that Minnesota Power Company (MP or the Company) provide information in its reply comments regarding the following topics:

- Staffing level changes identified by the Department's review of 2020 and 2021 actuals.
- MP's efforts to improve the Burnett 408 feeder's reliability;
- The significant decrease in the number of previously served customer service requests and;
- The Company's efforts to improve its call center response results.

The Department also stated it would make final recommendations on the Company's Annual Service Quality Report after reviewing MP's reply comments.

On June 15, 2022, the Company submitted its reply comments. MP provided additional information regarding staffing related to 1) Line Operations Support; 2) Engineering Support; and 3) Vegetation Management Contractors. The Company explained the change in the number of operations planning and scheduling employees was incorrectly calculated due to an undercount of those employees in 2021. As to the number of engineering support employees, MP identified an error the Department had made in its calculation regarding the number of metering employees in the Central district in 2020. The Department appreciates MP's correction. MP's discussion of its efforts related to vegetation management in its service territory was very helpful.

The Company also reviewed its efforts to improve the reliability of the Burnett 408 Feeder. The Department is hopeful these efforts will improve this feeder's reliability on a going forward basis.

MP explained the decrease in customer service requests the Department identified was the result of an apparent glitch in its system whereby the Customer Information System would double count previously served customer requests if the customer had more than one service agreement with the Company. Again, the Department assumes this issue will produce consistent results for this metric on a going forward basis.

MP's discussion of its efforts to restore its call center capabilities in the aftermath of the COVID-19 pandemic was also helpful. It is difficult to find workers these days and the Company is no different than any other employer.

The Department finds Minnesota Power's responses to be adequate for its purposes and recommends the Commission approve the customer service aspect of this filing.

The Department is available to answer any Commission questions.

Sincerely,

/s/ JOHN KUNDERT
Financial Analyst

JK/ja

CERTIFICATE OF SERVICE

I, Robin Benson, hereby certify that I have this day, served a true and correct copy of the following document to all persons at the addresses indicated below or on the attached list by electronic filing, electronic mail, courier, interoffice mail or by depositing the same enveloped with postage paid in the United States mail at St. Paul, Minnesota.

Minnesota Public Utilities Commission
ORDER

Docket Numbers: **E-015/M-22-163; E-017/M-22-159; E-002/M-22-162**

Dated this **9th** day of **November, 2022**

/s/ Robin Benson

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Generic Notice	Commerce Attorneys	commerce.attorneys@ag.state.mn.us	Office of the Attorney General-DOC	445 Minnesota Street Suite 1400 St. Paul, MN 55101	Electronic Service	Yes	OFF_SL_22-163_22-163
Hillary	Creurer	hcreurer@allete.com	Minnesota Power	30 W Superior St Duluth, MN 55802	Electronic Service	No	OFF_SL_22-163_22-163
Sharon	Ferguson	sharon.ferguson@state.mn.us	Department of Commerce	85 7th Place E Ste 280 Saint Paul, MN 551012198	Electronic Service	No	OFF_SL_22-163_22-163
Adam	Heinen	aheinen@dakotaelectric.com	Dakota Electric Association	4300 220th St W Farmington, MN 55024	Electronic Service	No	OFF_SL_22-163_22-163
Lori	Hoyum	lhoyum@mnpower.com	Minnesota Power	30 West Superior Street Duluth, MN 55802	Electronic Service	No	OFF_SL_22-163_22-163
David	Moeller	dmoeller@allete.com	Minnesota Power	30 W Superior St Duluth, MN 558022093	Electronic Service	Yes	OFF_SL_22-163_22-163
Generic Notice	Residential Utilities Division	residential.utilities@ag.state.mn.us	Office of the Attorney General-RUD	1400 BRM Tower 445 Minnesota St St. Paul, MN 551012131	Electronic Service	Yes	OFF_SL_22-163_22-163
Susan	Romans	sromans@allete.com	Minnesota Power	30 West Superior Street Legal Dept Duulth, MN 55802	Electronic Service	No	OFF_SL_22-163_22-163
Will	Seuffert	Will.Seuffert@state.mn.us	Public Utilities Commission	121 7th Pl E Ste 350 Saint Paul, MN 55101	Electronic Service	Yes	OFF_SL_22-163_22-163

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Ray	Choquette	rchoquette@agp.com	Ag Processing Inc.	12700 West Dodge Road PO Box 2047 Omaha, NE 68103-2047	Electronic Service	No	OFF_SL_22-159_22-159
Generic Notice	Commerce Attorneys	commerce.attorneys@ag.state.mn.us	Office of the Attorney General-DOC	445 Minnesota Street Suite 1400 St. Paul, MN 55101	Electronic Service	Yes	OFF_SL_22-159_22-159
Brooke	Cooper	bcooper@allete.com	Minnesota Power	30 W Superior St Duluth, MN 558022191	Electronic Service	No	OFF_SL_22-159_22-159
James C.	Erickson	jericksonkbc@gmail.com	Kelly Bay Consulting	17 Quechee St Superior, WI 54880-4421	Electronic Service	No	OFF_SL_22-159_22-159
Sharon	Ferguson	sharon.ferguson@state.mn.us	Department of Commerce	85 7th Place E Ste 280 Saint Paul, MN 551012198	Electronic Service	No	OFF_SL_22-159_22-159
Jessica	Fyhrie	jfyhrie@otpco.com	Otter Tail Power Company	PO Box 496 Fergus Falls, MN 56538-0496	Electronic Service	Yes	OFF_SL_22-159_22-159
Adam	Heinen	aheinen@dakotaelectric.com	Dakota Electric Association	4300 220th St W Farmington, MN 55024	Electronic Service	No	OFF_SL_22-159_22-159
Nick	Kaneski	nick.kaneski@enbridge.com	Enbridge Energy Company, Inc.	11 East Superior St Ste 125 Duluth, MN 55802	Electronic Service	No	OFF_SL_22-159_22-159
James D.	Larson	james.larson@avantenergy.com	Avant Energy Services	220 S 6th St Ste 1300 Minneapolis, MN 55402	Electronic Service	No	OFF_SL_22-159_22-159
Kavita	Maini	kmaini@wi.rr.com	KM Energy Consulting, LLC	961 N Lost Woods Rd Oconomowoc, WI 53066	Electronic Service	No	OFF_SL_22-159_22-159

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Andrew	Moratzka	andrew.moratzka@stoel.com	Stoel Rives LLP	33 South Sixth St Ste 4200 Minneapolis, MN 55402	Electronic Service	No	OFF_SL_22-159_22-159
Matthew	Olsen	molsen@otpco.com	Otter Tail Power Company	215 South Cascade Street Fergus Falls, MN 56537	Electronic Service	No	OFF_SL_22-159_22-159
Wendi	Olson	wolson@otpco.com	Otter Tail Power Company	215 South Cascade Fergus Falls, MN 56537	Electronic Service	No	OFF_SL_22-159_22-159
Generic Notice	Residential Utilities Division	residential.utilities@ag.state.mn.us	Office of the Attorney General-RUD	1400 BRM Tower 445 Minnesota St St. Paul, MN 551012131	Electronic Service	Yes	OFF_SL_22-159_22-159
Will	Seuffert	Will.Seuffert@state.mn.us	Public Utilities Commission	121 7th Pl E Ste 350 Saint Paul, MN 55101	Electronic Service	Yes	OFF_SL_22-159_22-159
Cary	Stephenson	cStephenson@otpco.com	Otter Tail Power Company	215 South Cascade Street Fergus Falls, MN 56537	Electronic Service	Yes	OFF_SL_22-159_22-159
Stuart	Tommerdahl	stommerdahl@otpco.com	Otter Tail Power Company	215 S Cascade St PO Box 496 Fergus Falls, MN 56537	Electronic Service	Yes	OFF_SL_22-159_22-159

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Alison C	Archer	aarcher@misoenergy.org	MISO	2985 Ames Crossing Rd Eagan, MN 55121	Electronic Service	No	OFF_SL_22-162_22-162
James J.	Bertrand	james.bertrand@stinson.com	STINSON LLP	50 S 6th St Ste 2600 Minneapolis, MN 55402	Electronic Service	No	OFF_SL_22-162_22-162
James	Canaday	james.canaday@ag.state.mn.us	Office of the Attorney General-RUD	Suite 1400 445 Minnesota St. St. Paul, MN 55101	Electronic Service	No	OFF_SL_22-162_22-162
John	Coffman	john@johncoffman.net	AARP	871 Tuxedo Blvd. St, Louis, MO 63119-2044	Electronic Service	No	OFF_SL_22-162_22-162
Generic Notice	Commerce Attorneys	commerce.attorneys@ag.state.mn.us	Office of the Attorney General-DOC	445 Minnesota Street Suite 1400 St. Paul, MN 55101	Electronic Service	Yes	OFF_SL_22-162_22-162
Riley	Conlin	riley.conlin@stoel.com	Stoel Rives LLP	33 S. 6th Street Suite 4200 Minneapolis, MN 55402	Electronic Service	No	OFF_SL_22-162_22-162
Brooke	Cooper	bcooper@allete.com	Minnesota Power	30 W Superior St Duluth, MN 558022191	Electronic Service	No	OFF_SL_22-162_22-162
George	Crocker	gwillc@nawo.org	North American Water Office	PO Box 174 Lake Elmo, MN 55042	Electronic Service	No	OFF_SL_22-162_22-162
Catherine	Fair	catherine@energycents.org	Energy CENTS Coalition	823 E 7th St St Paul, MN 55106	Electronic Service	No	OFF_SL_22-162_22-162
John	Farrell	jfarrell@ilsr.org	Institute for Local Self-Reliance	2720 E. 22nd St Institute for Local Self-Reliance Minneapolis, MN 55406	Electronic Service	No	OFF_SL_22-162_22-162

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Sharon	Ferguson	sharon.ferguson@state.mn.us	Department of Commerce	85 7th Place E Ste 280 Saint Paul, MN 551012198	Electronic Service	No	OFF_SL_22-162_22-162
Edward	Garvey	edward.garvey@AESLconsulting.com	AESL Consulting	32 Lawton St Saint Paul, MN 55102-2617	Electronic Service	No	OFF_SL_22-162_22-162
Adam	Heinen	aheinen@dakotaelectric.com	Dakota Electric Association	4300 220th St W Farmington, MN 55024	Electronic Service	No	OFF_SL_22-162_22-162
Michael	Hoppe	lu23@ibew23.org	Local Union 23, I.B.E.W.	445 Etna Street Ste. 61 St. Paul, MN 55106	Electronic Service	No	OFF_SL_22-162_22-162
Alan	Jenkins	aj@jenkinsatlaw.com	Jenkins at Law	2950 Yellowtail Ave. Marathon, FL 33050	Electronic Service	No	OFF_SL_22-162_22-162
Richard	Johnson	Rick.Johnson@lawmoss.com	Moss & Barnett	150 S. 5th Street Suite 1200 Minneapolis, MN 55402	Electronic Service	No	OFF_SL_22-162_22-162
Sarah	Johnson Phillips	sarah.phillips@stoel.com	Stoel Rives LLP	33 South Sixth Street Suite 4200 Minneapolis, MN 55402	Electronic Service	No	OFF_SL_22-162_22-162
William D	Kenworthy	will@votesolar.org	Vote Solar	332 S Michigan Ave FL 9 Chicago, IL 60604	Electronic Service	No	OFF_SL_22-162_22-162
Peder	Larson	plarson@larkinhoffman.com	Larkin Hoffman Daly & Lindgren, Ltd.	8300 Norman Center Drive Suite 1000 Bloomington, MN 55437	Electronic Service	No	OFF_SL_22-162_22-162
Kavita	Maini	kmaini@wi.rr.com	KM Energy Consulting, LLC	961 N Lost Woods Rd Oconomowoc, WI 53066	Electronic Service	No	OFF_SL_22-162_22-162

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Joseph	Meyer	joseph.meyer@ag.state.mn.us	Office of the Attorney General-RUD	Bremer Tower, Suite 1400 445 Minnesota Street St Paul, MN 55101-2131	Electronic Service	No	OFF_SL_22-162_22-162
Stacy	Miller	stacy.miller@minneapolismn.gov	City of Minneapolis	350 S. 5th Street Room M 301 Minneapolis, MN 55415	Electronic Service	No	OFF_SL_22-162_22-162
David	Moeller	dmoeller@allete.com	Minnesota Power	30 W Superior St Duluth, MN 558022093	Electronic Service	No	OFF_SL_22-162_22-162
Andrew	Moratzka	andrew.moratzka@stoel.com	Stoel Rives LLP	33 South Sixth St Ste 4200 Minneapolis, MN 55402	Electronic Service	No	OFF_SL_22-162_22-162
David	Niles	david.niles@avantenergy.com	Minnesota Municipal Power Agency	220 South Sixth Street Suite 1300 Minneapolis, Minnesota 55402	Electronic Service	No	OFF_SL_22-162_22-162
Carol A.	Overland	overland@legalectric.org	Legalectric - Overland Law Office	1110 West Avenue Red Wing, MN 55066	Electronic Service	No	OFF_SL_22-162_22-162
Generic Notice	Residential Utilities Division	residential.utilities@ag.state.mn.us	Office of the Attorney General-RUD	1400 BRM Tower 445 Minnesota St St. Paul, MN 551012131	Electronic Service	Yes	OFF_SL_22-162_22-162
Kevin	Reuther	kreuther@mncenter.org	MN Center for Environmental Advocacy	26 E Exchange St, Ste 206 St. Paul, MN 551011667	Electronic Service	No	OFF_SL_22-162_22-162
Richard	Savelkoul	rsavelkoul@martinsquires.com	Martin & Squires, P.A.	332 Minnesota Street Ste W2750 St. Paul, MN 55101	Electronic Service	No	OFF_SL_22-162_22-162
Christine	Schwartz	Regulatory.records@xcelenergy.com	Xcel Energy	414 Nicollet Mall FL 7 Minneapolis, MN 554011993	Electronic Service	Yes	OFF_SL_22-162_22-162

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Will	Seuffert	Will.Seuffert@state.mn.us	Public Utilities Commission	121 7th Pl E Ste 350 Saint Paul, MN 55101	Electronic Service	Yes	OFF_SL_22-162_22-162
Ken	Smith	ken.smith@districtenergy.com	District Energy St. Paul Inc.	76 W Kellogg Blvd St. Paul, MN 55102	Electronic Service	No	OFF_SL_22-162_22-162
Byron E.	Starns	byron.starns@stinson.com	STINSON LLP	50 S 6th St Ste 2600 Minneapolis, MN 55402	Electronic Service	No	OFF_SL_22-162_22-162
James M	Strommen	jstrommen@kennedy-graven.com	Kennedy & Graven, Chartered	150 S 5th St Ste 700 Minneapolis, MN 55402	Electronic Service	No	OFF_SL_22-162_22-162
Eric	Swanson	eswanson@winthrop.com	Winthrop & Weinstine	225 S 6th St Ste 3500 Capella Tower Minneapolis, MN 554024629	Electronic Service	No	OFF_SL_22-162_22-162
Lisa	Veith	lisa.veith@ci.stpaul.mn.us	City of St. Paul	400 City Hall and Courthouse 15 West Kellogg Blvd. St. Paul, MN 55102	Electronic Service	No	OFF_SL_22-162_22-162
Joseph	Windler	jwindler@winthrop.com	Winthrop & Weinstine	225 South Sixth Street, Suite 3500 Minneapolis, MN 55402	Electronic Service	No	OFF_SL_22-162_22-162
Kurt	Zimmerman	kwz@ibew160.org	Local Union #160, IBEW	2909 Anthony Ln St Anthony Village, MN 55418-3238	Electronic Service	No	OFF_SL_22-162_22-162
Patrick	Zomer	Pat.Zomer@lawmoss.com	Moss & Barnett PA	150 S 5th St #1200 Minneapolis, MN 55402	Electronic Service	No	OFF_SL_22-162_22-162