

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.

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- 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

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### 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 <sup>1</sup>	94.84	98.19
	SAIFI <sup>2</sup>	1.20	1.02
	CAIDI <sup>3</sup>	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

<sup>1</sup> SAIDI stands for System Average Interruption Duration Index.

<sup>2</sup> SAIFI stands for System Average Interruption Frequency Index.

<sup>3</sup> 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 2<sup>nd</sup> 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 2<sup>nd</sup> quartile of the small-sized utilities group.<sup>4</sup> 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.

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<sup>4</sup> Report at page 16.

## 2. Storm-Normalization Method

Minnesota Power reported both normalized and non-normalized SAIDI, SAIFI, CAIDI, MAIFI,<sup>5</sup> and ASAI<sup>6</sup> 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%

<sup>5</sup> MAIFI is defined as Momentary Average Frequency Index

<sup>6</sup> 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).<sup>7</sup> 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.<sup>8</sup>

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 Burnett 408 feeder in its Reply Comments.

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<sup>7</sup> Minnesota Rules 7826.0700 requires electric utilities to submit major service interruption reports to the Commission's CAO.

<sup>8</sup> "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**

<b>Description</b>	<b>2020</b>	<b>2021</b>	<b>Annual Percentage Change</b>
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**

<b>Description</b>	<b>2020</b>	<b>2021</b>	<b>Annual Percentage Change</b>
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**

<b>Description</b>	<b>2020</b>	<b>2021</b>	<b>Annual Percentage Change</b>
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**

<b>Description</b>	<b>2020</b>	<b>2021</b>	<b>Annual Percentage Change</b>
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<sup>9</sup> 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.<sup>10</sup> 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),

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<sup>9</sup> Annual Report, pages 52-54.

<sup>10</sup> 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**

	<b>Company Read</b>	<b>Customer Read</b>	<b>Customer Read (%)</b>
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**

	<b>Total Number of Installations</b>	<b>Request Date Met</b>	<b>% Request Date Met</b>
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**

	<b>Total Number of Installations</b>	<b>Request Date Met</b>	<b>% Request Date Met</b>
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**

	<b>Residential</b>	<b>Commercial</b>	<b>Industrial</b>	<b>Total</b>
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**

<b>Work Center</b>	<b>6 hr.</b>	<b>%</b>	<b>12 hr.</b>	<b>%</b>	<b>24 hr.</b>	<b>%</b>
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
<b>Residential</b>	Non-normalized	99.97%	142.30	1.37	103.53	4.17
	Normalized	99.98%	118.43	1.27	93.65	3.84
<b>Commercial</b>	Non-normalized	99.99%	8.32	0.08	103.53	0.24
	Normalized	99.99%	6.96	0.07	99.43	0.23
<b>Industrial</b>	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**

<b>Reporting Requirement</b>	<b>Amount and Unit</b>
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](mailto: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 <sup>11</sup>	16,927 <sup>12</sup>

<sup>11</sup> 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.

<sup>12</sup> 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),<sup>13</sup> 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:

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<sup>13</sup> 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.<sup>14</sup>

	SAIDI	SAIFI	CAIDI
MP 2016 Standard	98.19	1.02	96.26

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<sup>14</sup> 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.

## **CERTIFICATE OF SERVICE**

I, Marcella Emeott, hereby certify that I have this day served copies of the following document on the attached list of persons by electronic filing, e-mail, or by depositing a true and correct copy thereof properly enveloped with postage paid in the United States Mail at St. Paul, Minnesota.

**MINNESOTA DEPARTMENT OF COMMERCE**

**COMMENTS**

**Docket No. E015/M-22-163**

Dated this **26th** day of **May 2022**.

/s/Marcella Emeott

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@allte.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@allte.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@allte.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 PI E Ste 350  Saint Paul, MN 55101	Electronic Service	Yes	OFF_SL_22-163_22-163