BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

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

In the Matter of Xcel Energy's Annual Report on Safety, Reliability, and Service Quality for 2018; and Petition for Approval of Electric Reliability Standards for 2019	ISSUE DATE: January 28, 2020 DOCKET NO. E-002/M-19-261
In the Matter of Otter Tail Power Company's 2018 Annual Safety, Reliability and Service Quality Report and Proposed SAIFI, SAIDI, and CAIDI Reliability Standards for 2019	DOCKET NO. E-017/M-19-260
In the Matter of Minnesota Power's 2019 Safety, Reliability and Service Quality Standards Report	DOCKET NO. E-015/M-19-254 ORDER ACCEPTING REPORTS, ESTABLISHING RELIABILITY STANDARDS, AND REQUIRING ADDITIONAL FILINGS

PROCEDURAL HISTORY

By April 12, 2019, Xcel Energy (Xcel), Otter Tail Power (Otter Tail), and Minnesota Power filed their 2018 Annual Safety, Reliability, and Service Quality Reports with the Commission.

On April 25, 2019, the Commission issued a notice of comment period, seeking public comment on the 2018 reports.

On June 7, 2019, the Department of Commerce, Division of Energy Resources (the Department) filed comments on each utility's report, requesting additional information from each utility.

On June 28, 2019, Xcel and Otter Tail filed reply comments providing additional information.

On July 8, 2019, Minnesota Power filed reply comments providing additional information.

On August 14, 2019, the Department filed a response to Xcel's reply comments.

On September 16, 2019, the Department filed a response to Minnesota Power's reply comments.

On December 19, 2019, the Commission met to consider the matter.

FINDINGS AND CONCLUSIONS

I. Background

On or before April 1 of each year, each public utility providing retail electric service in Minnesota must file a report on its safety, reliability, and service-quality performance during the last calendar year.[1] Utilities must also propose reliability performance standards for the current year.[2] The Commission annually sets reliability standards for each utility.[3]

Report requirements are listed in Minn. R. Chapter 7826 and in various Commission orders, and include, but are not limited to, the following:

- Safety requirements:
    - A summary of all reports filed with the United States Occupational Safety and Health Administration and the Occupational Safety and Health Division of the Minnesota Department of Labor and Industry during the calendar year.
    - 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.
- Reliability requirements:
    - Reliability performance – System Average Interruption Duration Index (SAIDI), System Average Interruption Frequency Index (SAIFI), and Customer Average Interruption Duration Index (CAIDI)
    - Storm-normalization method
    - Action plan for remedying failure to comply with reliability standards
    - Bulk power supply interruptions
    - Major service interruptions
    - Circuit interruption data
    - Known instances in which nominal voltages did not meet American National Standards Institute standards
    - Work center staffing levels
- Service quality requirements:
    - Meter reading performance
    - Involuntary disconnection
    - Service extension response time

[1] Minn. R. 7826.0400; .0500, subp. 1; and .1300.

[2] Minn. R. 7826.0600, subp. 1.

[3] Minn. R. 7826.0600, subp. 2.

- Call center response time
- Emergency medical accounts
- Customer deposits
- Customer complaints

In this order, the Commission will accept the utilities' 2018 Safety, Reliability, and Service Quality Reports, clarify and discuss additional items for future reports and other filings, and set reliability standards for 2019.

II. Xcel

A. Report

Xcel filed its 2018 report on April 1, 2019, and requested that the Commission accept the filing for 2018 and approve its proposed reliability standards for 2019.

Regarding safety measures, Xcel noted that in 2018, it did not make any payments in compensation for injuries requiring medical attention caused by downed wires or system failures. The company also noted that it had reported a total of 16 employee injuries to the federal or state government.

Regarding reliability, Xcel stated that in 2018, it had met two of 12 reliability standards, noting that weather had negatively impacted reliability in most regions. Xcel also discussed staffing levels at each of its regional work centers and stated that although there were nine open positions and significant staff attrition largely due to retirements, the company did not believe that the reduced staffing levels had an impact on day-to-day operations or performance.

Regarding service quality, Xcel provided required data and reported that more customers have been using self-service options such as an automated phone system; consequently, there has been a decrease in customer need to speak to an agent after hours.

Xcel also addressed additional reporting requirements from Commission orders, including meter equipment malfunctions, Momentary Average Interruption Frequency Index (MAIFI), Customers Experiencing Multiple Interruptions (CEMI), Customers Experiencing Lengthy Interruptions (CELI), estimated restoration times, outage communications, Institute of Electrical and Electronics Engineers (IEEE) benchmarking, and grid modernization.

Xcel proposed reliability standards for 2019 and noted that it had calculated those standards using the average of its five-year reliability performance, which is the same methodology used in previous reports.

Finally, Xcel noted that approval of its 2018 report and proposed 2019 reliability standards would not result in any changes to the company's revenue.

B. Party Comments

The Department submitted comments in response to Xcel's report, recommending that the Commission accept Xcel's report as complete. The Department requested that Xcel provide additional adjusted data using both historical and current storm-normalization methods so that the Department could accurately analyze the company's historical performance data and evaluate the proposed 2019 reliability standards.

In reply comments, Xcel provided the requested data. Consequently, the Department recommended that the Commission accept Xcel's proposed reliability standards for 2019.

III. Otter Tail

A. Report

Otter Tail filed its 2018 report on April 1, 2019, including its proposed reliability standard for 2019.

Regarding safety, Otter Tail noted that there had been no instances of personal injury due to system failures in 2018, and one instance of property damage for which the company paid $100. The company also noted that it had reported a total of 14 employee injuries to the federal or state government.

Regarding reliability, Otter Tail reported that overall, its Minnesota customers experienced 484 sustained interruptions in 2018, and that its overall SAIDI, SAIFI, and CAIDI performance declined slightly between 2017 and 2018. The company stated that it had updated its action plan to improve system reliability performance, including items such as monthly meetings of a cross-functional reliability team, improvements to electronic tracking of internal reports, installation of remote real-time monitors, and GIS data integration.

Regarding service quality, Otter Tail noted that it had increased the number of full-time lineworkers available for trouble calls between 2017 and 2018. Additionally, Otter Tail identified 34 customer complaints received in 2018, of which 47% were resolved on initial inquiry and an additional 50% of which were resolved within 10 days. Otter Tail noted that only one complaint took longer than 10 days to resolve.

Otter Tail also proposed reliability performance standards for 2019. In the Commission's March 19, 2019 order in Docket No. E-017/M-18-247, the Commission froze the company's reliability standards at 2013 levels until the company could demonstrate improvement in meeting performance goals.[4] Otter Tail proposed to maintain its performance standards at the 2013 levels for 2019.

[4] The Commission initially froze Otter Tail's reliability standards at the 2013 levels in its December 12, 2014 Order in Docket No. E-017/M-14-279. The 2013 reliability standards have been in effect from 2013 through 2018.

B. Party Comments

The Department submitted comments in response to Otter Tail's report, recommending that the Commission accept the company's report as complete for 2018. The Department also recommended that the Commission approve Otter Tail's proposal to maintain its reliability standards at the 2013 level, noting that the company has not been above a 50% success rate for its reliability performance standards since 2015.

Finally, the Department requested that Otter Tail provide additional information regarding what appeared to be a significant increase in disconnection notices issued in 2018 compared to previous years. In response, Otter Tail explained that it had inadvertently included South Dakota customer disconnection numbers in its report and provided corrected data.

IV. Minnesota Power

A. Report

Minnesota Power filed its 2018 report on April 12, 2019,[5] including proposed reliability standards for 2019.

Regarding safety, Minnesota Power reported no incidents in 2018 in which downed wires or system failures resulted in injuries requiring medical attention, and a total of $22,374.13 in damage claims paid, including claims for vehicle, road, and driveway damage. The company noted that it had reported 18 employee injuries to the federal or state government.

Regarding reliability, Minnesota Power noted that in 2018, the company experienced over 25% more outage events than its historical average. Minnesota Power reported that weather was the largest factor contributing to reliability issues, including a high frequency of wind storms. Additionally, the company noted that for unknown reasons, porcelain insulators on overhead lines had failed at a much higher rate than previous years, also causing outages. The company reported that it hired additional staff to develop a preventative maintenance program, which was fully developed in 2018 and intended to improve reliability in the future. Additionally, in 2018, the company reported a reduction in planned outages.

Regarding service quality, Minnesota Power reported that in 2018, the company read 98.76% of residential meters, 99.90% of commercial meters, 99.98% of industrial meters, 100% of municipal pumping meters, and 99.97% of lighting meters. Additionally, the company noted that 82% of calls during business hours were answered within 20 seconds, and predicted that as an increasing number of issues can be handled via the company's online self-service tool, the types of calls received by the call center may become more complex and time-consuming.

[5] Minnesota Power filed a letter on April 1, 2019, the original deadline for submission of the report, requesting a deadline extension due to staffing constraints related to other pending regulatory matters. Minnesota Power Variance Letter, at 1 (April 1, 2019).

Minnesota Power also proposed reliability performance standards for 2019. The company first proposed to set the reliability standards at the 2016 levels for an additional reporting year,[6] following the Commission's guidance in its February 19, 2019 order in Docket No. E-015/M-18-250. The company also provided an alternative proposal to set standards using a five-year rolling average of reliability results.

B. Party Comments

The Department commented on Minnesota Power's 2018 report, requesting that the company provide certain additional information to fulfill the requirements of a previous Commission order and to assist the Department in analyzing the report. The Department noted specific concerns about the Colbyville 240 feeder, stating that it had appeared on the list of poor-performing circuits four out of the past ten years. The Department also requested additional details about specific numbers of calls received and calls answered within 20 seconds, noting that the company should include this information in its annual reports going forward.

Additionally, the Department recommended that the Commission set Minnesota Power's reliability standards at the same levels that have been in place since 2016, stating that the rolling five-year average is a lower standard than the 2016 standards; the Department noted that the company had previously been able to meet the 2016 standards and since the company continues to make investments in reliability improvements, the stricter standards should stay in place.

In its reply comments, Minnesota Power provided the additional information requested by the Department, including details on upgrades to the Colbyville 240 line performed in 2018 and additional information on total calls and calls answered within 20 seconds. Consequently, the Department recommended that the Commission accept Minnesota Power's 2018 report as complete, and also recommended that the Commission direct the company to provide an update on the Colbyville 240 feeder in its 2019 report.

V. Commission Action

After closely reviewing the record, including information provided in reply comments, the Commission concurs with the Department that all three utilities' 2018 reports are complete and will accept the reports. The Commission will also set the utilities' 2019 reliability performance standards as recommended by the Department and described in the ordering paragraphs.

The Commission will clarify the ongoing, permanent reporting requirements for future reports. In the 2018 reports, it appears that certain items were reported slightly differently by different utilities; these clarifications are intended to reduce confusion, increase consistency, and ensure that the annual reports contain all the information intended by the Commission.

The Commission will direct the utilities to discuss potential additional metrics in their 2019 reports, as described in the ordering paragraphs. During the course of the 2018 reporting cycle, it became apparent that certain metrics may need to be added or modified, and the Commission would like the utilities to consider these issues thoroughly and report their findings in the next

[6] Minnesota Power's report refers to the "2017 levels," but the Commission previously set the company's 2017 performance standards at the 2016 levels; consequently, the 2017 and 2016 levels are the same.

reporting cycle. Minnesota Power is also directed to provide an update on the Colbyville 240 feeder, as recommended by the Department, and to provide details on calls received and calls answered.

The Commission will direct the utilities to make compliance filings with certain additional information within 30 days of the issuance of this order. Order points 5 (a) and (b) direct the utilities to file historic reliability data, which will give the Commission useful context for the information included in the 2018 reports.[7] Order points 5 (c) and (d) are specific to Xcel Energy; the Commission would like to review specific information on Xcel's staffing levels and potential correlation with reliability issues prior to the submission of next year's reports.

The Commission will also delegate authority to the Executive Secretary to request comments on staff's proposal on locational reliability and equity. In 2017, the Commission opened Docket No. E-002/CI-17-401 to identify and develop performance metrics and standards for Xcel. After additional filings and comment periods in that docket, Commission staff determined that locational reliability and equity would be better addressed in Xcel's annual reliability report, and developed proposed metrics and reporting requirements, described in Attachment C. The Commission believes that staff's proposal to move the discussion to the present docket is reasonable and will authorize the Executive Secretary to issue a notice of comment period on the proposal.

Finally, the Commission will direct utilities to consult with Commission staff to draft a brief summary of their annual service-quality and reliability metrics and file it as an attachment to their next annual report. In the Commission's May 14, 2019 order regarding the utilities' 2017 Safety, Reliability, and Service Quality Reports, the Commission directed each utility to draft such a summary but did not attach a deadline to the ordering point.[8] The Commission believes that these summaries will help ratepayers understand the complicated service-quality and reliability metrics and standards. In order to ensure that the summaries are created in a timely manner, the Commission will direct utilities to file them along with next year's report.

ORDER

1. The Commission accepts Xcel Energy's, Otter Tail Power's, and Minnesota Power's annual Safety, Reliability, and Service Quality Reports for 2018.

2. The Commission clarifies the reporting requirements from the Commission's March 19, 2019 order, as specified in Attachment B; the Commission delegates authority

[7] Item 5a applies only to Xcel and Minnesota Power because this information was already submitted by Otter Tail in its 2018 report.

[8] *In the Matter of Xcel Energy's 2017 Electric Annual Service-Quality Performance Report and Proposed Reliability Measures*, Docket No. E-002/M-18-239; *In the Matter of Otter Tail Power Company's 2017 Annual Safety, Reliability, and Service Quality Report and Proposed SAIFI, SAIDI, and CAIDI Reliability Standards for 2018*, Docket No. E-017/M-18-247; and *In the Matter of Minnesota Power's 2017 Safety, Reliability, and Service-Quality Standards Report*, Docket No. E-015/M-18-250, Order Accepting Reports, Setting Filing Requirements, and Granting Withdrawal of Reconnect Pilot Proposal, at 6 (May 14, 2019).

to the Executive Secretary to establish final report formatting and make minor clarifications where necessary.

3. In their 2019 Safety, Reliability, and Service Quality Reports, utilities shall discuss the feasibility of the following metric, and if the utility does not think the metric is feasible, provide an alternative:

    a. Provide a comparison of the reliability (SAIDI, SAIFI, CAIDI, MAIFI, normalized/non-normalized) of feeders with grid modernization investments, such as Advanced Metering Infrastructure (AMI) or Fault Location, Isolation, and Service Restoration (FLISR), to the historic 5-year average reliability for the same feeders before grid modernization investments.

4. In their 2019 Safety, Reliability, and Service Quality Reports, utilities shall discuss transitioning from a five year rolling average method of proposing SAIDI, SAIFI, and CAIDI standards, to standards that are similar to the second quartile rank of similarly sized investor-owned utilities under either the IEEE benchmarking study or using United States Energy Information Administration (EIA) reliability data, and may propose and discuss other alternatives.

5. Within 30 days, the utilities shall make a compliance filing with additional data as follows:

    a. For Minnesota Power and Xcel Energy, causes of sustained customer outages, by work center, from 2010 to 2018, as a spreadsheet (.xlsx).

    b. CEMI (4+, 5+, 6+) and CELI historical data (6, 12, and 24 hours), both normalized and non-normalized, from 2010 to 2018, as a spreadsheet (.xlsx).

    c. For Xcel Energy, a historic breakdown of full time equivalent (FTE) line workers versus office staff for each work center from 2010 to 2018.

    d. For Xcel Energy, an explanation for the decline in staffing at its Southeast work center and a report on:

        i. steps taken to increase FTEs at the Southeast work center in 2020,

        ii. the number of contractors versus employees at the Southeast work center, and

        iii. steps taken to improve reliability standards that are lagging at the Southeast work center.

6. Minnesota Power's Reliability Standards for 2019 are hereby set at the 2016 levels:

	SAIDI	SAIFI	CAIDI
2016 Standard	98.19	1.02	96.26

7. In their 2019 Safety, Reliability, and Service Quality Report, Minnesota Power is directed to provide an update on the Colbyville 240 feeder, specifically to note whether any work on the feeder has made an improvement in reliability.

8. In future Safety, Reliability, and Service Quality Reports, Minnesota Power is requested to include specific numbers of calls received and calls answered within 20 seconds, both for business and non-business hours and by type, in accordance with Minnesota Rules 7826.1700 and 7826.1200.

9. Otter Tail Power's Reliability Standards for 2019 are hereby set at the 2013 levels:

Work Center	SAIDI	SAIFI	CAIDI
Bemidji	70.64	1.26	56.06
Crookston	69.33	1.19	58.26
Fergus Falls	66.97	1.11	60.33
Milbank	75.49	1.82	41.48
Morris	55.78	1.01	55.23
Wahpeton	57.24	1.13	50.65
All MN Customers	64.95	1.13	57.48

10. Xcel Energy's Reliability Standards for 2019 are hereby set at the following levels:

Work Center	SAIDI	SAIFI	CAIDI
Metro East	89.78	0.86	103.94
Metro West	82.08	0.82	100.37
Northwest	85.86	0.76	113.01
Southeast	94.82	0.76	122.04

11. The Commission hereby delegates authority to the Executive Secretary to request comments on the staff proposal on locational reliability and equity in reliability, as described in Attachment C.

12. Utilities shall consult with Commission staff to draft a brief summary of their annual service-quality and reliability metrics that is digestible and useable for general audiences and file it as an attachment to their next annual report due April 1, 2020.

13. This order shall become effective immediately.

BY ORDER OF THE COMMISSION

Ryan Barlow
Acting Executive Secretary

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Attachment B: Updated Annual Reporting Requirements

1. Non-normalized SAIDI, SAIFI, and CAIDI values
2. SAIDI, SAIFI, and CAIDI, MAIFI, CEMI, and 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 Minn. 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:
    a. Within -90 minutes to 0 of estimated restoration time
    b. 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:

		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 C: Locational/Equity Reliability Staff Proposal

1. Xcel shall provide, on an annual basis, a list of all sustained outages greater than 5 minutes in length with the following information:
    a. Customers Out
    b. Duration of outage, in actual minutes
    c. Customer Minutes Out
    d. Feeder ID
    e. Substation
    f. City or area in which the feeder is primarily located
    g. Reliability reporting region
    h. Outage Level
    i. Primary Event Index
    j. Whether or not the event was excluded as a major event day under the IEEE
    k. The primary cause of the outage
    l. The start day, month, and year of the outage
2. Xcel shall provide the following information, by feeder, for the calendar year:
    a. Reliability reporting region where the feeder is located
    b. The substation the feeder is on, with its full name
    c. The city or area in which the feeder is primarily located
    d. The number of customers on the feeder, including the proportion of residential to commercial and industrial
    e. Whether the feeder is overhead or underground
    f. SAIDI, SAIFI, and CAIDI, normalized (IEEE 1366 Standard) and with Major Event Days
    g. Number of outages, total customer outages, and total customer-minutes-out for the following situations:
        i. All levels, All Causes included
        ii. Bulk Power supply - All causes, distribution, substation, transmission substation, and transmission line levels
        iii. All levels, no "planned' cause, includes bulk power supply
        iv. All levels, "planned" cause only, includes bulk power supply
3. Xcel shall provide a publically available online map showing reliability by feeder that allows interested individuals to zoom in to a neighborhood level, and if possible, the ability to have popups that indicate reliability values, except to the extent that publicly disclosing this data would violate specific data privacy requirements or pose a significant security risk to Xcel's system or its customers. If Xcel withholds any information on this basis, Xcel

shall provide the Commission with a full description and specific basis for withholding the information, including any Trade Secret claims.