COMMERCE DEPARTMENT

September 2, 2020

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

RE: Reply Comments of the Minnesota Department of Commerce, Division of Energy Resources
Docket No. E002/M-20-406

Dear Mr. Seuffert:

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

2019 *Annual Electric Service Quality Report* (Report) submitted by Northern States Power Company, d/b/a Xcel Energy (Xcel or the Company).

The Department provides its responses to the comments submitted by other parties to the April 20, 2020 Notice of Comments of the Minnesota Public Utilities Commission (Commission) in these Reply Comments. The Department recommends the Commission: 1) reject Xcel's proposal to use a five-year average of IEEE information as the basis of its reliability goals and 2) continue to explore the issues related to locational reliability and equity over the coming months.

The Department is available to answer any questions that the Commission may have.

Sincerely,

/s/ JOHN KUNDERT
Financial Analyst

COMMERCE DEPARTMENT

Before the Minnesota Public Utilities Commission

Comments of the Minnesota Department of Commerce
Division of Energy Resources

Docket No. E002/M-20-406

I. PROCEDURAL HISTORY

In its Notice of Comment Period in this proceeding dated April 20, 2020 the Minnesota Public Utilities Commission (Commission) identified five topics that were addressed to the three rate-regulated investor-owned utilities (IOUs) are open for comment.[1]

1. Should the Commission accept Minnesota Power's, Otter Tail Power's, and Xcel Energy's Safety, Reliability and Service Quality Metrics reports?
2. Should the Commission approve Minnesota Power's, Otter Tail Power's and Xcel Energy's proposed transition from a rolling five year average to set reliability standards to benchmarking to the IEEE Reliability Working Group? Please discuss:
    a. Time lag of IEEE benchmarking data.
    b. Xcel's proposal to use a 5 year average of IEEE 2nd quartile results vs Otter Tail Power and Minnesota Power's proposals to use the prior year's benchmarking results, and keeping standards consistent between utilities.
    c. The move from reporting reliability results for each work center, to the state as a whole, and whether utilities need a variance to Minn. Rules 7826.0500 Subp 1 A-C and Subp 2.
    d. The choice of using the IEEE working group vs. EIA data for benchmarking.
3. Feedback on utilities' proposed public facing summary of the annual reports. Please discuss:
    a. Whether the information is digestible for members of the general public
    b. If there is any additional content utilities should include in the documents
    c. Potential methods of distributing this information to customers.
4. Should the Commission grant Xcel Energy's requested variance to Minn. Rules 7825.0500 Subpart 1.G? Should the Commission vary this rule for all utilities?
5. Are there other issues or concerns related to this matter?

[1] Minnesota Power and Otter Tail Power Company are the two additional IOU's covered under this Notice.

The Commission also asked several other questions specifically related to Xcel:

1. Please provide feedback on the staff proposal for locational reliability reporting (Attachment A). Please discuss:
    a. Whether the listed reporting requirements will allow for the development of a locational reliability metric?
    b. Whether any additional information is needed?
    c. How the information can best be presented to stakeholders and the public?

2. What are the appropriate pieces of data to collect to gauge locational customer service quality?

3. What are the appropriate pieces of information to overlay with reliability and customer service quality data to gauge equity? For example, the Minnesota Pollution Control Agency maintains a map showing areas of environmental concern that could be overlaid with data listed in Attachment A.

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

Three parties in addition to the Department filed comments in this proceeding:

1. Environmental Law and Policy Center/Vote Solar (ELPC/VS);
2. City of Minneapolis (Minneapolis), and
3. Suburban Rate Authority (SRA).

Xcel also filed comments that primarily discussed the four specific questions the Commission directed at Xcel and the information included in Attachment A of that notice.[2]

The Department presents the parties' responses by topic below.

II. RESPONSES BY TOPIC

A. RELIABILITY STANDARDS – IEEE BENCHMARKING DATA

Xcel provided some additional information related to this topic. The Company noted that the state's two other investor-owned electric utilities Minnesota Power (MP) and Otter Tail Power (OTP) had agreed to use a standard approach. This approach involves using a five-year average of the IEEE benchmarking data as replacement to the existing approach.

No other party discussed this issue. The Department recommended that the Commission reject Xcel's proposed five-year average of the IEEE data in our comments dated August 19, 2020. As a result, we do not support this potential expansion of that approach to MP and OTP.

[2] The information included in Attachment A is recreated in Attachment 1 to these comments.

B. WILL THE REPORTING REQUIREMENTS LISTED IN ATTACHMENT A OF THE COMMISSION'S APRIL 20, 2020 NOTICE ALLOW FOR THE DEVELOPMENT OF A LOCATIONAL RELIABILITY METRIC?

Table 1 summarizes the parties' responses to this question.

Table 1 – Adequacy of Attachment A Reporting Requirements

Party	Position
ELPC/VS	Staff's proposal a good start. Also recommended that: 1) any publicly available map be regularly updated; 2) the map should provide a comparison to previous period reliability data: 3) the map should include layers that overlay service quality, income and other demographic data, and 4) the map display traditional reliability metrics by feeder but also a simplified scoring system that benchmarks reliability on any one particular feeder to the Company's systemwide reliability performance.
Minneapolis	Supports Staff's proposal.
SRA	Did not take a position on the issue
Xcel	Noted that Staff's proposal would: 1) require that about 10 reliability metrics per feeder be reported; 2) result in the development of a significant amount of data (19,000 outages lasting more than five minutes spread across 1,000 feeders); 3) raise significant and complex security, privacy, and confidentiality issues for both the grid and Xcel's customers.

As to the question regarding presentation, all parties seem to agree that a map or some form of visual presentation is preferable. Xcel provided a number of additional graphics and maps in its Comments that could serve as a starting point for additional discussions. The Company also stated that it could update a map annually.

The parties' responses to this question differ widely. The Department agrees that Staff's proposal could produce a locational reliability metric, but we have questions regarding the security, privacy and confidentiality issues Xcel identified. This topic that would benefit from additional study and discussion.

C. LOCATIONAL RELIABILITY - CUSTOMER SERVICE QUALITY DATA NEEDED

Table 2 below summarizes the parties' responses to the Commission's second Xcel-specific question.

Table 2 – Data Required for Gauging Locational Customer Service Quality

Party	Position
ELPC/VS	Report by feeder: 1) Involuntary disconnections (absolute number and as a percentage of customers); 2) Customer accounts participating in energy assistance programs (absolute number and as a percentage of customers); and 3) Customer accounts participating in utility energy efficiency programs (absolute number and as a percentage of customers). Also requested that this information be: 1) regularly updated; 2) compared to previous period data; and 3) benchmarked to systemwide performance.
Minneapolis	Recommends reporting data on "disconnections by zip code/census tract"
SRA	Interested in metrics related to outage or emergency-affected communications with customers.
Xcel	Currently provides information by feeder for SAIDI (System Average Interruption Duration Index), SAIFI (System Average Frequency Index), CAIDI (Customer Average Interruption Duration Index), CELID (Customers Experiencing Long Interruptions), and CEMI (Customers Experiencing Multiple Interruptions) in annual Service Quality Report. Provided maps for SAIDI and CEMI in its 2019 Annual Service Quality Report. Could provide similar maps in its 2020 Annual Service Quality Report for SAIDI and CEMI.

Service quality as a topic has not historically included energy assistance programs or energy efficiency programs so the adoption/pursuit of ELPC/VS's recommendations would greatly expand that area's scope. The Department would appreciate more discussion about costs and expected benefits stemming from that larger scope before we make a recommendation. As to Minneapolis and SRA's proposals, we would also appreciate some additional information regarding cost and the current level of information being provided to customers and/or interested parties.

D. APPROPRIATE RELIABILITY AND CUSTOMER SERVICE INFORMATION TO GAUGE RELIABILITY

Table 3 summarizes the parties' responses to the Commission's third question as to how the combination of reliability and customer service information be tracked effectively.

Table 3 – Reliability and Customer Service Information for Gauging Reliability

Party	Position
ELPC/VS	Provide locational reliability and service quality data by feeder and census tract or zip code and provide that data as a downloadable .csv file. Provide a basic analysis of poor performing feeders, identify feeders exceeding the threshold and bench market data corresponding to those feeders against the population of feeders with similar proportions of residential customers.
Minneapolis	Supports the use of two additional metrics - number of neighborhoods experiencing repeated outages by zip code/census tract and number of neighborhood outages and number of community critical services that lost grid power by type and location along with the number of times that each of these service lost power.
SRA	Supports additional potential metrics regarding Service Quality in Outage and Emergency circumstances.
Xcel	Currently provides information by feeder for SAIDI (System Average Interruption Duration Index), SAIFI (System Average Frequency Index), CAIDI (Customer Average Interruption Duration Index), CELID (Customers Experiencing Long Interruptions), and CEMI (Customers Experiencing Multiple Interruptions) in annual Service Quality Report. Provided maps for SAIDI and CEMI in its 2019 Annual Service Quality Report. Could provide similar maps in its 2020 Annual Service Quality Report for SAIDI and CEMI.

The Department would appreciate some additional information regarding the City of Minneapolis's proposed metric on the number of community critical services. We are interested in the definition of the term "community critical services." ELPC/VS and SRA's recommendations indirectly support the Department's recommendation that Commission allow for additional time to discuss these issues. ELPC/VS recommends a worst-performing feeder analysis of the type that Xcel has been providing as part of its annual Service Quality Report for a number of years. SRA is interested in outage-related metrics some of which Xcel has provided in that same annual Service Quality Report. Perhaps a technical conference that discusses the Commission's reporting framework on reliability and service quality and a summary of that system's existing status would be useful to parties in that it would allow for a basis understanding of these issues relative to Xcel's Minnesota distribution system.

E. OTHER ISSUES OF CONCERN?

Xcel stated the following on page 8 of its Comments:

> The bubble charts (see Attachments C (SAIDI) and D (CEMI6)) provide additional context to the number of customers in each zip code, and the trend lines for both reliability metrics indicate that income and reliability tend to have an inverse relationship. Income tends to be the highest in the outlying suburbs where long overhead lines dominate along with heavy vegetation, leading to more and lengthier outages. The urban and inner suburbs tend to have easily accessible lines with less vegetation in a more densely populated area, leading to less outages and faster restoration.

The Department notes that the maps and analysis to date provide a helpful start to the analysis, but more information may be needed, such as adding factors like the number of houses per mile of distribution lines, along with examining the outlying data points in the regression analyses to assess whether another factor may be helpful to add. The Department appreciates the discussion of the issues identified in this proceeding to date and looks forward to seeing additional information and analysis.

III. DEPARTMENT SUMMARY AND RECOMMENDATIONS

The Department continues to recommend that the Commission reject the Company's proposal to use a five-year IEEE average as the basis for developing its annual reliability targets. Regarding locational reliability and equity, Xcel expressed concerns in its comments regarding the volume of the data to be collected and the privacy and security issues results from the dissemination of the data. It appears that additional information and analysis is required before this issue can move forward in both of these areas.

The Commission may want to invite additional questions or sponsor a technical conference in an attempt to resolve some of those issues. While the Department is fully supportive of developing these metrics, these issues do not appear to be simple or easy to resolve. We recommend that the Commission identify a process for discussing and hopefully resolving these issues.

Attachment 1 – Staff Proposal for Locational/Equity Reliability for Xcel

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, included bulk power supply
        iv. All levels, "planned" cause only, included bulk power supply
        v. All levels, "planned" cause only, includes bulk power supply

3. A publicly 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 pop-ups that indicate reliability values, except to the extent that publicly disclosing the 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.

CERTIFICATE OF SERVICE

I, Sharon Ferguson, hereby certify that I have this day, served copies of the following document on the attached list of persons by electronic filing, certified mail, 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
Reply Comments

Docket No. E002/M-20-406

Dated this **2nd** day of **September 2020**

/s/Sharon Ferguson

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