

STATE OF MINNESOTA  
BEFORE THE PUBLIC UTILITIES COMMISSION

Katie Sieben	Chair
Joseph K. Sullivan	Vice-Chair
Valerie Means	Commissioner
Matthew Schuerger	Commissioner
John Tuma	Commissioner

In the Matter of Xcel Energy’s Compliance  
with Annual Safety, Reliability, and Service  
Quality Metrics for 2019

MPUC DOCKET NO. E002/M-20-406

**REPLY COMMENTS OF THE  
SUBURBAN RATE AUTHORITY**

**INTRODUCTION**

These are the reply comments of Suburban Rate Authority (“SRA”) regarding Locational Reliability, Service Quality and Equity Metrics for Xcel Energy in accordance with the Commission’s Notice of Comment dated April 20, 2020. The SRA appreciates the comments of Xcel and other commenting parties and will respond to them below, beginning with Xcel’s comments.

**REPLY**

**A. XCEL COMMENTS**

Xcel discusses and illustrates its zip code-based data showing equity and locational reliability, labeling them “Equity Maps” and “bubble charts”, respectively.<sup>1</sup> With U.S. Census median income data, Xcel has depicted data to illustrate possible correlations between SAIDI or CEMI and median income.

Xcel uses zip code areas used for equity or locational reliability charting without explaining whether or why a more granular, more feeder or neighborhood based sub-area could not be used. The SRA’s concern is that zip codes can include great variations in household income preventing

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<sup>1</sup> Xcel Comments, p. 6, Attachments A-D.

any meaningful correlation from being drawn between sub-areas of a zip code containing high and lower median incomes and reliability. While it may be able to point out a chart interpretation to answer this, it is not apparent to the SRA in looking at a given Twin Cities Metropolitan service zip code that, within the zip code, there are not wide disparities in SAIDI or SAIFI or CEMI or CELID statistics based on income within the zip code. Such a potential wide disparity could simply be offset masking extremes with data that simply looks average. Local knowledge of select areas with Hennepin and Ramsey Counties alone would suggest significant ranges in median income within zip codes. It is not clear to the SRA how an equity-based disparity in reliability could be identified by using zip code wide data, or by the charting that Xcel has included in its initial comments. If it is difficult to identify correlations in the bubble charts and if reliability and reliability by income correlations are shown, one seeks a more granular, location specific depiction.

SRA has commented that more granular data collection of outage history in feeder or neighborhood areas would not get lost in the averages created by larger and diverse areas. Xcel does point out, however, that published feeder-based data is subject to security/safety risks and defined meter areas would lack census data.<sup>2</sup> The SRA acknowledges that Xcel faces privacy and security impediments to publishing a more accurate geographical or median income measure of distribution reliability disparity. The possible casualty in wider area averages is the identification of strong correlations between outages and low-income areas that are diluted in wider averages. Such a condition can also exist in neighborhoods or feeder areas that are not lower income but simply suffer from a recurring problem not related to storm events as defined in the Service Quality

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<sup>2</sup> Xcel Comments at 10-11.

Tariff. That said, the SRA looks forward to further discussion or clarification of Locational and Equity Reliability measures.

## **B. DEPARTMENT OF COMMERCE COMMENTS**

The Department's Comments includes comprehensive analysis of Xcel's 2019 Service Quality Tariff safety, reliability, and service quality data.<sup>3</sup> The SRA supports the Department's highlight of the Commission's requirement that Xcel (as well as Minnesota Power and Ottertail Power) "develop a summary of their service-quality and reliability metrics *that is digestible and useable for general audiences...*"<sup>4</sup> Usability by the customer is very important, and is also a challenge, given the complexity of the metrics.

To this Commission directive and the SRA's discussion of Xcel comments above, metrics that can isolate locational reliability trouble spots or equity concerns by discernable geographical patterns should be a metric goal. If the chart of measuring parameter cannot be understood or show disparities, the customer will not find them helpful. Averages over wide areas can measure general improvement or regression.<sup>5</sup> But can a measure be derived that will show that, e.g., outages over a material period of time have increased in identifiable areas where the median income is less than 150% of poverty level, or in any identifiable geographical or political subarea? In such a case, Commission and Xcel focus can result in correction of sub-standard service. Such measures do not exist at this time.

The average measure revealed that in 2019 Xcel's average customer was without power for an hour and twenty-one minutes and experienced less than one outage in 2019. Two percent of Minnesota customers experienced more than three outages and three percent of the two percent

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<sup>3</sup> Department Comments at p. 4, 11-13, 16.

<sup>4</sup> *Id.* at 5.

<sup>5</sup> E.g., Metro Region SAIDI and CAIDI average time increases.

experienced an outage longer than six hours.<sup>6</sup> Two percent of Xcel customers is still a considerable number. Was there any geographical or socioeconomic correlation between these averages, especially the worst ones? Where did they live and were there any pockets or infrastructure characteristics that could be identified? Those customers and their locations should receive follow-up review to eliminate any repeat of the substandard service experienced, and to pinpoint any system flaws that caused these anomalies.

Even more probing of outlying, substandard service that defies the averages, the Department appropriately highlights the Commission’s January 28, 2020 Docket no. 19-261 order requiring Xcel to report on the sole customer or feeder experiencing the most interruptions/outages during the reporting period.<sup>7</sup> This type of metric is necessary to counter the pure averages that both blend differing socio-economic areas and do not identify the unacceptable poor service anomalies. These are examples of important metrics to add to systemwide or zip code averages.

The Department comments also note the spike in Xcel 2019 costs for personal injuries incurred noting three large payments due to “downed wires” and property damage due to “overhead” facilities as the most common in 2019 “as is most often the case.”<sup>8</sup> The SRA has suggested in its initial comments that a metric comparing outage performance by predominant distribution facilities, overhead or underground, could have merit. That is, combining overhead or underground caused injuries to person and property with the measurement of comparative reliability of service between the two may establish a basis to look into a more formalized changeover to underground distribution, at least in certain areas. Conversely, it may show the

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<sup>6</sup> *Id.* at 17.

<sup>7</sup> Department Comments at 21.

<sup>8</sup> *Id.* at 9-10.

opposite, that overhead distribution facilities are more reliable, if not as safe. The IEEE 1366 storm day data is very important in establishing metrics for this type of reliability and safety review.

In this new era of technological advancements, it is appropriate to devise metrics that measure the combined elements of overhead and underground installation, maintenance costs, quality of electricity, restoration time after outages, and useful life. All of the foregoing could be used to compare reliability with the aid of Advancing Metering Infrastructure (AMI) and Fault Location Isolation and Service Restoration (FLISR) devices.<sup>9</sup> Similarly, safety of overhead and underground utilities could be compared by damage caused to person or property. Xcel's intended investment in its technological advances should provide the basis for evaluating whether a predominant overhead or underground delivery system in a given area results in a more reliable and safe electrical distribution system, especially in Xcel's more densely populated customer areas.

The SRA particularly supports the Department's final bullet point recommendation in its comments that "Xcel provide a report discussing any operational changes the utility made, is considering or intends to make in the future to prevent the kinds of interruptions the utility experienced in the past year and any lessons learned on restoring service more quickly in the future." In addition, the SRA would find valuable in such a report Xcel's discussion of how its methods of communicating outages and ongoing efforts to restore outages to customers is the most informative and timely possible, or what new approaches it intends to take in such post-outage communication that will improve service quality.

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<sup>9</sup> See Department Comments at 24.

### **C. CITY OF MINNEAPOLIS**

The SRA supports the City’s request for “neighborhood” outage reporting. The SRA has commented on the need for more granular identification of such neighborhoods than by zip code, which can obscure problems in neighborhoods of lower socio-economic level when averaged with other distinguishable neighborhoods in the same zip code.<sup>10</sup> The SRA is mindful, however, of the initial reliability measure by Xcel suggesting greater outage frequency in neighborhoods with higher socio-economic levels due to technological challenges created by hills, distances, and vegetation.<sup>11</sup> Such physical characteristics evident in reliability reducing outages may also be an element of analysis in an overhead and underground facilities metric.

The SRA also agrees with the City that mapping, charting, and color coding enhance the readability and understandability of the information conveyed to the “general audiences.”<sup>12</sup> The metrics already applied in the Service Quality Tariff and under discussion now can be challenging to understand and interpret correctly. Both the level of complexity and manner in which the data is reported to the public must be a high priority in metric structuring.

### **D. ENVIRONMENTAL LAW & POLICY CENTER AND VOTE SOLAR**

The SRA agrees with ELPC-VS’s recommendation that metrics allow evaluation of energy disparities that may exist in to-be-identified “Energy Poverty” areas and that Xcel locational reliability reporting include grid modernization investment impact on reliability.<sup>13</sup> It is important to identify disparities that may exist in reliability and quality of service in areas with lower socio-economic opportunities and ensure that the significant technology investment passed on to ratepayers manifest itself in tangible ways to enhance customer service quality and customer

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<sup>10</sup> City Comments at 1.

<sup>11</sup> Xcel Comments at 8.

<sup>12</sup> *Supra* at 3.

<sup>13</sup> ELPC-VS at 3-5.

understanding of the service they are receiving. The SRA further supports the call for “more robust” analysis of poor performing feeders. This will necessitate more identification of areas smaller than zip codes areas and better pinpoint areas where infrastructure upgrade is needed – and disclosure of such conditions to affected customers.<sup>14</sup>

The SRA appreciates ELPC-VS recommendations in evaluation of Equity in reliability and recognizes the importance of metrics that identify Xcel service or issues that may be more prevalent in lower socio-economic areas. Performance metrics should cull out such conditions that may have been hidden from view due to prior or existing identification limitations.

Each of the SRA’s 32 member cities has, to varying degrees, residential customers financially challenged to maintain electrical service. It may be a single customer amongst others in an area not identified as a neighborhood or zip code exhibiting lower socio-economic averages. Or this docket may be able to devise a metric more able to identify small areas that suffer from below Xcel average outage standards who can benefit greatly from improved infrastructure, more methods of interactive communication and greater opportunity to take advantage of conservation, cost-reducing programs not previously known to them. Reaching those in the margins with meaningful improvements in electricity quality of service at reasonable cost is an important goal in this Locational Reliability, Service Quality and Equity docket.

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<sup>14</sup> *Id.*

## **E. SRA RECOMMENDATIONS**

In addition to supporting other commenters as mentioned above, the SRA reiterates its support of:

1. Metrics that where needed, expand on methods of informing and interactive communication with customers during and following outages, particularly in areas identified as Equity or “Energy Poverty” areas.

2. Metrics that identify smaller, e.g., neighborhood or feeder or socio-economic, areas of substandard performance in reliability and communication with customers. The SRA believes that even the zip code sub-areas hide areas that should be identified for improvements with averages from above-average service areas in the same zip code.

3. A metric that will combine relevant reliability measures relating to overhead, underground and mixed use of same in feeder or other relevant area. New technology such as FLISR should enhance Xcel’s ability to further measure both reliability and safety of overhead and underground to determine if there is a material difference favoring one or the other.

4. Continued or expanded “metrics” or reporting requirements to identify those exceptional outage frequencies or durations, or other, e.g., extreme customer wait times in customer service that may expose a significant flaw that should be immediately remedied and sought to be reduced or eliminated in the future.

The SRA looks forward to further development of appropriate metrics in this important electricity service component.



Respectfully submitted,

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KENNEDY & GRAVEN, CHARTERED

By: /s/ James M. Strommen

James M. Strommen (#0152614)

Joseph L. Sathe (#0401073)

470 U.S. Bank Plaza

200 South Sixth Street

Minneapolis, MN 55402

(612) 337-9300

jstrommen@kennedy-graven.com

jsathe@kennedy-graven.com

ATTORNEYS FOR THE  
SUBURBAN RATE AUTHORITY