414 Nicollet Mall
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July 25, 2014

—Via Electronic Filing—

Burl W. Haar
Executive Secretary
Minnesota Public Utilities Commission
121 7th Place East, Suite 350
St. Paul, MN 55101

RE: REPLY COMMENTS
ELECTRIC SERVICE QUALITY REPORT
DOCKET NO. E002/M-14-131

Dear Dr. Haar:

Northern States Power Company, doing business as Xcel Energy, submits this Reply to the June 30, 2014 Comments of the Minnesota Department of Commerce – Division of Energy Resources in the above-referenced docket.

We have electronically filed this document with the Minnesota Public Utilities Commission, and copies have been served on the parties on the attached service list.

Please contact Rebecca Eilers at 612-330-5570 or rebecca.d.eilers@xcelenergy.com if you have any questions regarding this filing.

Sincerely,

/s/

PAUL J LEHMAN
MANAGER, REGULATORY COMPLIANCE & FILINGS

Enclosures
c: Service List

STATE OF MINNESOTA
BEFORE THE
MINNESOTA PUBLIC UTILITIES COMMISSION

Beverly Jones Heydinger	Chair
David C. Boyd	Commissioner
Nancy Lange	Commissioner
Dan Lipschultz	Commissioner
Betsy Wergin	Commissioner

IN THE MATTER OF NORTHERN STATES POWER COMPANY'S, ANNUAL SAFETY, RELIABILITY, AND SERVICE QUALITY REPORT FOR 2013; AND PETITION FOR APPROVAL OF RELIABILITY GOALS FOR 2014	DOCKET NO. E002/M-14-131 **REPLY COMMENTS**

INTRODUCTION

Northern States Power Company, doing business as Xcel Energy, submits to the Minnesota Public Utilities Commission this Reply to the June 30, 2014 Comments of the Minnesota Department of Commerce – Division of Energy Resources on our Annual Safety, Reliability, and Service Quality Report for 2013; and Petition for Approval Reliability Goals for 2014.

We appreciate the Department's recommendation that the Commission accept our Report and our proposed 2014 reliability goals pending submission of additional information. We provide our Reply to the Department's request for additional information below.

REPLY

A. Reliability

1. CAIDI

The Department asked that we identify the factors that could be responsible for the lack of improvement in CAIDI performance over the last eight years.

We have formed a CAIDI improvement team made up of employees from the Engineering, Construction, Control Center and Trouble operations groups to examine causes and to develop solutions to improve CAIDI performance. The team began meeting monthly in the first quarter of 2014 and is developing a CAIDI reduction plan. We discuss some of the factors identified by the team which impact CAIDI improvement below.

- Time Recording: When a crew has restored an outage, procedure dictates that they record the time at which the line was restored. However, the team discovered that crew-recorded data does not precisely match the actual times the meters were energized according to the recorded automated meter reading (AMR) data. Some crews were rounding the restore time to the quarter or half hour closest to the energize time which resulted in some outages appearing to last longer, adversely affecting CAIDI metrics. To reduce inaccurate time recording, we implemented a "Restore Time Campaign" in April 2014 for all field forces that record restore time data following an outage. We stress to these crews that every second counts; if they restore power at 10:12, they should record 10:12. Crews are now better trained to record the restore time before finishing other post-outage tasks, whereas before they sometimes recorded the all-tasks completion time instead of the power restored time. We can continue to monitor improvements in crew data recording by cross-checking AMR times against restore times and working directly with crews who are not recording the appropriate restore time. An improvement in data collection can improve our CAIDI metrics.
- Restore before Repair: Over the past few years, we have not focused on making partial repairs to restore a portion of customers during an outage. The CAIDI improvement team identified that a stronger focus on this process could have a positive impact. In the "restore before repair" process, the Distribution Control Centers isolate the fault, restore as many customers as possible through switching, and then patrol the rest of the circuit to finish repairs for the remaining customers. For example, if a feeder locks out affecting 2,500 customers, we can use fault indication and other technology to isolate the fault and then instruct the troubleman to open a switch on either side of the fault and close switches to re-energize customers outside of the open switches. In this example we restored 2,000 of the 2,500 customers quickly, but without this process, we would leave all 2,500 customers without power until we physically locate and repair the specific faulted section. With a renewed concentrated focus on restoring before repair, we should be able to make a positive impact on CAIDI performance.

- Staffing Levels: When our usual crews are at a scheduled appointment with a customer, they cannot always get to an outage immediately and still maintain our high level of customer service. A delay in reaching an outage results in lower CAIDI performance. As a result, we have started to use contractors for some appointments so that our workforce remains at a steady level to meet non-outage customer expectations, while current specialized crews are available to respond to outages in a more timely fashion. We expect this practice to support our efforts of reducing CAIDI metrics, especially in our work centers with a large service territory to cover.

In addition to these factors identified by the CAIDI improvement team in recent months, we discussed CAIDI performance in our July 31, 2013 Reply Comments in Docket No. E002/M-13-255 (our 2012 Annual Safety, Reliability, and Service Quality Report). In the July 31 Reply, we noted that a significant influence on CAIDI performance is the number of outages at the feeder level because:

> *(1) feeder level outages affect many customers so they have a material impact on the metrics, and (2) because we can usually restore service to customers impacted by these events through a switching procedure, they represent our shortest outages by a significant margin.*
>
> *Therefore, our increased use of Intelliteam switches, which reduces the impact of feeder level outages, is starting to have an impact on our CAIDI performance. Our Intelliteam switches isolate and automatically redirect power flow during a major outage. Thus instead of a feeder breaker outage affecting thousands of people when the breaker goes out, the fault is isolated, the feeder is automatically healed and a much smaller number of customers are left without power. While this automatic process reduces the number of overall outages (and therefore improves our SAIDI performance) it also increases our CAIDI, because the CAIDI measure actually improves when many customers go off line for a short period of time. The bigger events that the Intelliteam switches are now reducing had previously diluted the effects of the smaller, shorter outages.*
>
> *Because feeder level outages have such a material impact on our overall reliability statistics, the better our feeder level reliability, the better our SAIDI and SAIFI performance but the worse our CAIDI performance. So while the use of our Intelliteam switches is preventing mass extended outages on the system, it has now increased the focus on the restoration time of the smaller outages that affect fewer customers but that require more complex restoration work.*

We believe our use of Intelliteam switches is still a contributing factor for a lack in CAIDI improvement over the past years, in addition to the other factors more recently identified by the CAIDI improvement team.

Also, as we noted in our July 31 Reply,

> *SAIDI is accepted across the industry as the best reliability indicator, due to the fact it is a system measure as well as a blend of duration and frequency. Alternatively, CAIDI measures the average outage time an individual customer could expect to be without power if they experienced a sustained outage. As discussed in more detail on pages 7-9 of our Report, because of the material impact feeder-level outages have on overall reliability statistics, the better our feeder level reliability, the better our SAIDI and SAIFI (System Average Interruption Frequency Index performance) - but the worse our CAIDI performance.*

While we are committed to improving CAIDI performance across our work centers, we note that our primary focus continues to be on maintaining consistent SAIDI levels, which in turn can result in a lack of improvement for our CAIDI metrics.

2. Southeast Work Center

The Department requested that we provide a discussion of the performance in the Southeast work center as well as any specific measures we are taking to improve performance in this work center.

In addition to the areas identified above by the CAIDI improvement team which will be applied to all work centers, including Southeast, we have a few additional steps we are taking in the Southeast work center to improve performance. For instance, in 2013, the Southeast region experienced several significant substation outages that negatively affected CAIDI. While normally a substation outage has a positive effect on CAIDI, in these 2013 cases the specialized personnel required to restore service was outside the normal service territory attending to other duties. The travel time necessary for the specialized personnel to reach these substation outages negatively affected CAIDI for 2013.

Therefore, in order to reduce such instances in the future, we have begun training additional personnel to perform these specialized substation outage activities. Other process improvements which should increase performance in the Southeast region include training all line personnel as part of the "restore before repair" initiative discussed above. Furthermore, we are committed to better managing vacations and

time away from normal work locations to ensure that trained and qualified personnel are available to restore service when needed.

In addition, parts of the Southeast Region experienced significant outages due to the ice storm on April 9-10. These two days negatively impacted the Southeast Region CAIDI by approximately 25 minutes. Although this ice storm did not meet the technical threshold for exclusion, these storm conditions did cause a considerable damage to our system and created difficult and slow working conditions. Without this severe weather event, Southeast Region CAIDI would not have increased over 2012.

3. Worst Performing Feeders

The Department requested our Reply Comments include a discussion regarding the recurrence of similar issues for two of the worst performing feeders in 2012 and 2013 (one in our Metro East work center and one in our Southeast work center) and the likelihood of this reoccurring in the future.

The Metro East feeder in question has been extensively rebuilt, partly due to the Feeder Performance Improvement Plan (FPIP) and partly due to the storm activity in the area in 2013. So far in 2014 this feeder has been performing well and has had no mainline events. We do not expect this feeder to be a worst performer in 2014.

The Southeast feeder in question had been performing poorly prior to 2014 due to vegetation management issues. This feeder was relocated in a previous year to more closely follow the roadways, which will enable quicker restoration in the case of an outage. This vegetation around the feeder was trimmed in mid-2013 and has not experienced a tree-related outage since May 2013. We do not expect this feeder to be on the 2014 worst performer list.

B. Commercial Service Extensions

The Department asked that we include in our Reply Comments additional discussion regarding the increase in response time for commercial service extensions from 2009-2013.

During this timeframe, the electric residential service response time has held steady, though our reports have shown that electric commercial service response time has increased from an average of 7.4 days to an average of 11.9 days. To better understand this increase, we more closely examined the 2013 work orders whose

"completion date" in our records exceeded the "customer requested date" by 30 days or more. We determined that many of these services were recorded as late due to two primary reasons: 1) *customer delays*—the customer was not ready to receive service or the site was not yet ready to receive service by the date the customers estimated they would be able to take service, and 2) *lag-time*—our office support inputted the work order "completed date" in the system as the day they were recording the data versus the date the project was actually completed and energized in the field.

If we re-calculate our 2013 electric commercial service times by assuming all customer delays did not exceed the "customer-requested date" (zero days) and readjust the for the correct completed date where there was input lag time, our average response time was approximately 5 to 6 days instead of 11 days. This recalculation is much closer to the 2009 – 2011 average of 7.4 days. Even though the past two years of data shows an increase in turn-around time, we believe the adjusted turn-around time is a better indicator and therefore our performance is not declining. We plan to better instruct our support personnel to input the energized date into the system to more accurately track a service completion date, which we expect will have a positive impact on our service turn-around times.

C. Major Service Interruptions

The Department requested that we discuss in our Reply Comments the causes for the large increase of major service interruptions in 2013.

As we stated on page 9 of our Petition, "Xcel Energy regularly sends the CAO notification of *all* sustained outages occurring at the Feeder level or above, which includes reporting outages that are not necessarily large enough or long enough to meet the definition of a major service interruption under Minn. R. 7826.0200, subp. 7."

The Department's analysis prompted us to look more closely at our reported 2013 major service interruptions, and we discovered that we had reported the *total* number of outage notification emails sent to the Consumer Affairs Office (CAO) and not just those *qualifying* outages which meet the definition of a major service interruption. Excluding the non-qualifying events (those affecting fewer than 500 people and/or lasting under an hour), our revised number of major service interruptions meeting the Minnesota Rules definition is 310 instead of 603. This number includes the major June 2013 storm in the Twin Cities metro area with its associated 125 outages. We believe the updated figure of 310 is much more in line with past years' data and apologize for the data oversight in our Report. We are working to improve the data

collection process to ensure that the correct information is included in future annual reports.

D. Meters Read

Finally, the Department requested that we identify the reasons for the failure to meet the standards outlined in Minnesota Rules, part 7826.0900, subp. 1 in November of 2013 regarding percentage of meters read.

As noted in the Department's Comments, the fluctuation in the percentage of meters read each month is also being addressed in the 2013 Annual Nature Gas Service Quality Report (Docket No. G002/M-14-367). The reason for the monthly variation we cited in our June 19, 2014 Reply Comments in that docket also accounts for our apparent failure to meet the MN Rules-specified 90 percent of meters read in November. We stated in our June 19 Reply:

> *We note that the monthly variances in meter reading data do not indicate a variable quality of service. Instead, the variances are a result of a 21-day read cycle for each billing month where all 21 days do not always coincide exactly with a calendar month. For example, there were only 19 working days in February, and the meter readings from those 19 days are shown as occurring in the calendar month of February in Attachment B of our Petition. Additional readings for the February billing month were done on the last working days of January and the first working days of March to comprise the 21-day read cycle. When we remove multiple meter reads for a given meter from our calendar month report data, however, some of the reads for the February billing month are excluded from the January calendar month reads, and then are not included in February's calendar month either. Excluding multiple meter reads from the calendar month makes February's meters read percentage artificially low.*
>
> *The number of working days in a month, the number of weekends in a month, and the number of holidays in a month will thus impact the meters read percentage when excluding multiple meter reads from the data.*

The June 19 Reply used February as an example, but November could have also been cited as a similar example month where the meters read percentage is artificially low if one calculates the percentage by dividing the number of meters read in a calendar month by the number of total meters. In November there were nineteen working days; the month included two holidays and nine weekend days. The 21-day read cycle for November began on October 25 and ended on November 26. The data in Attachment F included all reads in a calendar month instead of a billing-month/read cycle, so when multiple meter reads for a given meter were excluded for November,

the percentage of meters read appears to be below 90 percent. If we were to calculate the percentage of meters read based on the 21-day read cycle, our read rate for November exceeded 99 percent. Therefore, we believe that we have met the standards outlined in Minnesota Rules for all months in 2013.

CONCLUSION

We appreciate the Department's review of our Report and are hopeful the additional information we provided in these Reply Comments meets the Department's requests for further clarification and information. We respectfully request that the Commission approve our Annual Safety, Reliability, and Service Quality Report for 2013; and Petition for Approval of Reliability Goals for 2014, as supplemented by these Reply Comments.

Dated: July 25, 2014

Northern States Power Company

CERTIFICATE OF SERVICE

I, Theresa Sarafolean, hereby certify that I have this day served copies of the foregoing document on the attached list of persons.

xx by depositing a true and correct copy thereof, properly enveloped with postage paid in the United States mail at Minneapolis, Minnesota

xx electronic filing

DOCKET NO. E002/M-14-131

Dated this 25th day of July 2014

/s/

_____

Theresa Sarafolean

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