

BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

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In the Matter of Minnesota Power Company's
Reliability Standards Report and Proposed
Annual Standards for 2003 Pursuant to
Minnesota Rules, Chapter 7826

ISSUE DATE: November 21, 2003

DOCKET NO. E-015/M-03-533

DOCKET NO. E-017/M-03-505

In the Matter of Otter Tail Power Company's
Reliability Standards Report and Proposed
Annual Standards for 2003 Pursuant to
Minnesota Rules, Chapter 7826

DOCKET NO. E-111/M-03-489

DOCKET NO. E-001/M-03-532

In the Matter of Dakota Electric Association's
Reliability Standards Report and Proposed
Annual Standards for 2003 Pursuant to
Minnesota Rules, Chapter 7826

DOCKET NO. E-002/M-03-520

ORDER ACCEPTING SERVICE QUALITY
PERFORMANCE REPORTS AND
APPROVING SERVICE QUALITY GOALS
FOR 2003

In the Matter of Interstate Power Company's
Reliability Standards Report and Proposed
Annual Standards for 2003 Pursuant to
Minnesota Rules, Chapter 7826

In the Matter of Northern States Power
Company d/b/a Xcel Energy's Reliability
Standards Report and Proposed Annual
Standards for 2003 Pursuant to Minnesota
Rules, Chapter 7826

PROCEDURAL HISTORY

On or about April 1, 2003 each rate-regulated utility¹ filed historical reliability data (outages) as required by Minn. Rules, Part 7826.0600 for their service territory, as well as by work center. In addition, Dakota Electric Association (Dakota) voluntarily filed this information about its service. The companies filed in the following order:

Minnesota Power Company (MP): March 20, 2003
Otter Tail Power Company (OTP): March 28, 2003
Dakota Electric Association (Dakota): March 28, 2003
Interstate Power & Light Company (Interstate): April 1, 2003
Xcel Energy (Xcel): April 1, 2003

On May 28, 2003, the Minnesota Department of Commerce (the Department) filed comments regarding the filings made by Dakota and OTP's initial filings.

On May 30, 2003, the Department filed comments regarding the filing made by MP.

On June 2, 2003, the Department filed comments regarding the filings made by Interstate's and Xcel's initial filings.

On June 9, 2003, Dakota and OTP filed reply comments.

On June 12, Interstate and Xcel filed reply comments. Supplemental comments were filed by Interstate and Xcel on June 16 and 19, respectively.

The Commission met on October 16, 2003 to consider these matters.

FINDINGS AND CONCLUSIONS

The indices used in the Commission's service performance rules and in this Order are:

System average interruption duration index or SAIDI: system average interruption duration index or "SAIDI" means the average customer-minutes of interruption per customer. It is determined by dividing the annual sum of customer-minutes of interruption by the average number of customers served during the year, using storm-normalized data.

¹ Cooperative and Municipal utilities are not required to file reliability or service quality data with the Commission under Minnesota Rules 7826.0600, Subpart 1. Dakota Electric Association voluntarily filed under the rule.

System average interruption frequency index or SAIFI. System average interruption frequency index or “SAIFI” means the average number of interruptions per customer per year. It is determined by dividing the total annual number of customer interruptions by the average number of customers served during the year, using storm-normalized data.

Customer average interruption duration index or CAIDI. Customer average interruption duration index or “CAIDI” means the average customer-minutes of interruption per customer interruption. It approximates the average length of time required to complete service restoration. It is determined by dividing the annual sum of all customer-minutes of interruption durations by the annual number of customer interruptions, using storm-normalized data.

By definition, SAIDI divided by SAIFI equals CAIDI.

I. DAKOTA ELECTRIC ASSOCIATION

Because it is a cooperative, Dakota is exempted from the reliability data reporting required of public utility companies by Minn. Rules Chapter 7826. As a cooperative, however, it is required by Minn. Stat. § 216B.81 to adopt service standards. In addition to voluntarily filing reliability data for the past five years, therefore, Dakota proposed reliability standards for 2003, as follows:

SAIDI = 63 minutes
SAIFI = 0.85 minutes
CAIDI = 82 minutes

Dakota developed its proposed goals by adding ten percent to the four-year (1999-2002) average of indices using data that was not weather-normalized.

The Department objected to the 2003 reliability performance goals that Dakota proposed. The Department expressed concern that Dakota’s approach to developing the 2003 performance goals may allow for a degradation in the reliability of the Dakota’s service quality and would fail to meet the legislative intent to improve service.

First, the Department noted that since by definition SAIDI divided by SAIFI equals CAIDI, Dakota’s approach of raising each by ten percent did not reflect that mathematical relationship. The Department stated that it would be possible to raise one or two of the indices by the same percent but that the third index would be dictated by the math.

Second, the Department stated that Dakota’s use of data that was not weather normalized was improper since the rules require storm-normalized data as part of the definition of SAIDI, SAIFI, and CAIDI.

At the hearing, however, the Department stated that revised reliability standards submitted by Dakota as part of its June 9, 2003 reply comments were reasonable and should be accepted.

The Commission will accept Dakota's voluntarily filed service quality reports and also will approve the revised 2003 service quality standards that Dakota filed June 9, 2003. The Commission finds that these revised standards are responsive to the Department's legitimate concerns and are reasonable. Those standards are as follows:

SAIDI: 57 minutes
SAIFI: 0.77 minutes
CAIDI: 74 minutes

II. OTTER TAIL POWER COMPANY

OTP filed reliability data for the past five calendar years for each of its work centers but rather than proposing a 2003 service quality standard for each work center, submitted one overall average as the standard for all six of its work centers.

The Department noted that the rules require each utility to file proposed reliability performance standards (SAIDI, SAIFI, CAIDI) for each work center. Using the historical data supplied by OTP, the Department calculated reliability goals for each work center as follows:²

Work Center	SAIDI	SAIFI	CAIDI
Bemidji	51.3	12.3	4.1
Crookston	76.7	19.1	4.0
Fergus Falls	87.9	16.8	5.1
Milbank	36.3	13.0	3.1
Morris	79.9	17.0	4.8
Wahpeton	58.3	26.5	2.3

The Commission finds that these goals are reasonable and appropriate and will approve them.

² In calculating these proposed standards, the Department noted significant differences between work center historical performance, particularly for Crookston where, the Department suggested, the high numbers may be the result of storms which OTP's current storm-normalization process did not recognize. To take the unusual 2001 Crookston figures into account, the Department deleted that year and used a four-year historical average for the Crookston work center rather than a five-year average.

III. MINNESOTA POWER COMPANY

MP's historical data for 1997 through 2001 is based on average of customers per feeder tap fuse and is calculated per transformer. For 2002 data, and in the future, MP relied more on a manual count per outage event. MP explained that it adjusts outage data for major storms if 15,000 or more customers are affected and that would add 10 minutes to the Company's annual SAIDI.

MP proposed the following 2003 reliability goal.

SAIDI	175 minutes
SAIFI	1.4 minutes
CAIDI	125 minutes

MP's proposed goals for 2003 are higher than the Company's six-year average. MP explained that beginning in 2002, the Company adopted a manual count method which emphasizes identifying outage cause and restoration time. MP stated that while this should improve MP's tracking abilities, it will perhaps result in increased reliability indices.

The Department stated that setting reliability goals should be based on the best available information and should avoid arbitrary adjustments. The Department noted that in docket G, E-002/PA-99-1031, the merger of Northern States Power Company and New Century Energy to form Xcel Energy, the Commission approved reliability goals based on a five-year average. The Commission also ordered a penalty would apply if the goals were exceeded by five percent or more. The Department used this precedent to develop its recommended 2003 reliability goals for Minnesota Power:

SAIDI	142 minutes
SAIFI	1.2 minutes
CAIDI	118 minutes

The Department asserted that its proposed goals are very close to the five year average of indices as envisioned by the rule to be the basis of a utility's goal.

Minnesota Power, while expressing a concern for the potential of indices to fluctuate from year to year and the extent to which a utility can be held accountable for failing to achieve the reliability goals, accepted the goals proposed by the Department.

The Commission finds that MP's historical data is acceptable and that the Department's proposed 2003 goals for MP are reasonable.

IV. INTERSTATE

Interstate filed five years of historical data and proposed standards for 2003. On May 30, 2003, Interstate filed a revised version of its initial filing to correct the inadvertent exclusion of the town of Elmore from the 1998-2001 data.

Prior to 2002, Interstate's outage database contained data provided by manual estimates of outage times and numbers of affected customers. Outages for individual customers or individual transformers were not recorded or tracked. Interstate stated that its new outage management system will track all outages. Interstate predicted that its reliability indices will increase between 20 and 50 percent with the implementation of an improved tracking method.

Interstate described the method it uses to adjust the outage data for major storms. The company normalized its reliability data by eliminating outages that occur under the following conditions:

- a. wind speed exceeding 90 mph, or
- b. wind speed exceeding 40 mph when at least one-half inch of ice is present, or
- c. ten percent of the affected area's total customers experience an outage of more than five hours.

Interstate calculated its proposed 2003 reliability standards for its work centers by increasing its historical values by 35 percent, as follows:

Work Center	SAIDI	SAIFI	CAIDI
Winnebago	156.25 minutes	2.23 minutes	165.08 minutes
Albert Lea	154.24 minutes	1.66 minutes	125.27 minutes

The Department stated that it analyzed proposed standards based on whether they reflect the historical data as well as any changes that may have been made to the utility's tracking system. The Department questioned the validity of Interstate's historical data, noting that the Company's data varies greatly and the 1998 data may not have been appropriately adjusted to take into account major storms. In addition, 2000 data is significantly lower than other years.

The Department argued that given the unreliability of Interstate's data, its performance goals should be set at 2002 performance levels, since the 2002 data has been accurately storm normalized and reflects the tracking capabilities of the new outage management system. The Department, therefore, recommended the following service reliability goals for Interstate:

Work Center	SAIDI	SAIFI	CAIDI
Winnebago	73.72 minutes	0.91 minutes	81.13 minutes
Albert Lea	134.90 minutes	1.74 minutes	77.74 minutes

Interstate responded that goals must be set based on data from more than a one-year period. The company stated that a more accurate reflection is to take typical values over a period of time as the Company has done.

The Commission finds that neither option (using a single year's data or using the average of highly questionable multi-year data) is optimum. However, the Commission is persuaded to adopt the Department's approach. The Commission realizes that it will take several additional years of such data to secure the appropriate range of reliable historical data on which to base the next year's reliability standard envisioned by the rule, but beginning with at least one solid year's data is preferable.

V. XCEL

At this time, the Commission will take no action in this docket with respect to Xcel's service quality performance and proposed service quality standards for 2003. The Commission will be addressing several issues associated with Xcel's service quality performance and reporting issues in Docket No. E, G-002/CI-02-2034, the Commission's investigation into Xcel's service quality issues. A settlement agreement between Xcel and the Department was filed in that docket on September 24, 2003. The agreement will likely effect the 2003 reliability goals for Xcel, among other things.

VI. LOOKING FORWARD

The Commission notes that the Department and the utilities are in general agreement regarding the 2003 proposed reliability goals for each utility as well as the Department's recommendations for improving the collection, recording, and reporting of data, and the development of accurate reliability goals.

The ability to accurately record, report, set goals and improve service performance should improve with each annual filing. The utilities have either recently implemented new reliability tracking systems to comply with the rules, or they soon will be implementing new reliability tracking systems to comply with the rules. These tracking systems will improve the accuracy and consistency of the data, and should eventually allow for useful comparisons of a utility's performance from year to year.

ORDER

1. The service quality performance reports of Minnesota Power Company, Otter Tail Power Company, Dakota Electric Association, and Interstate Power & Light Company are accepted.
2. 2003 service quality goals are approved for these four companies as follows:

Utility	Work Center	SAIDI (minutes)	SAIFI (minutes)	CAIDI (minutes)
<i>Minnesota Power Company</i>	Entire Area	175.00	1.40	125.00
<i>Otter Tail Power Company</i>	Bemidji	51.30	12.30	4.10
	Crookston	76.70	19.10	4.00
	Fergus Falls	87.90	16.80	5.10
	Milbank	36.30	13.00	3.10
	Morris	79.90	17.00	4.80
	Wahpeton	58.30	26.50	2.30
Dakota Electric Association	Entire Area	49.00	0.73	68.00
<i>Interstate Power & Light Company</i>	Winnebago	73.72	0.91	81.13
	Albert Lea	77.74	1.74	77.74

3. This Order shall become effective immediately.

BY ORDER OF THE COMMISSION

Burl W. Haar
Executive Secretary

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