2302 Great N. Drive
Fargo, North Dakota 58402
(701) 241-8632
dave.sederquist@xcelenergy.com

June 1, 2012

VIA EMAIL
AND FEDERAL EXPRESS

Darrell Nitschke, Executive Secretary
North Dakota Public Service Commission, Dept. 408
600 East Boulevard Avenue
Bismarck, ND 58505-0480

RE: **XCEL ENERGY RELIABILITY PERFORMANCE PLAN PROPOSAL**
CASE NOS. PU-10-657, PU-11-55, AND PU-11-557

Dear Mr. Nitschke:

Enclosed is Xcel Energy's compliance filing in the above-referenced dockets pertaining to Order Point 2 in the Commission's Final Order. Order Point 2 directs the Company to file a Reliability Performance Plan proposal.

The proposed Plan will support our ongoing efforts to improve reliability and complement the reliability initiatives approved in the Settlement Agreement in the above-referenced dockets. The Plan, therefore, benefits customers in North Dakota and addresses the reliability issues raised by the Commission in our previous rate proceeding.

We have worked with Advocacy Staff in recent weeks to ensure the Plan is results-focused, offers balanced incentives, and is administratively straightforward. We respectfully request that the Commission approve the Plan to complete the overall reliability enhancement initiatives approved by the Commission in these dockets.

Thank you.

Sincerely,

DAVID SEDERQUIST
SR. REGULATORY CONSULTANT

cc: Mike Diller

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Compliance filing - Order Point 2 - Reliability Performance Plan proposal
Northern States Power Company
David Sederquist

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Compliance filing - Order Point 2 - Reliability Performance Plan proposal
Northern States Power Company
David Sederquist

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Compliance filing - Order Point 2 - Reliability Performance Plan proposal
Northern States Power Company
David Sederquist

STATE OF NORTH DAKOTA
BEFORE THE
NORTH DAKOTA PUBLIC SERVICE COMMISSION

Case No. PU-12-____

PROPOSAL OF
NORTHERN STATES POWER COMPANY,
DOING BUSINESS AS XCEL ENERGY, FOR AN ELECTRIC RELIABILITY PERFORMANCE PLAN
IN NORTH DAKOTA

I. INTRODUCTION

Pursuant to ND Century Code 49-02-02 and ND Century Code 49-02-03, and in compliance with the Settlement Agreement in Case Nos. PU-10-657, PU-11-55, and PU-11-557, Northern States Power Company, a Minnesota corporation doing business as Xcel Energy hereby petitions the North Dakota Public Service Commission to approve a Reliability Performance Plan ("RPP" or "Plan") for the Company's electric operations. The Plan is to be in effect for three years beginning in 2013.

The proposed RPP establishes:

1. A broad system reliability performance standard for the Company's North Dakota electric system,

2. A process to issue bill credits to customers who experience multiple interruptions within a given year, and

3. Reporting of the Company's reliability-focused customer satisfaction survey ratings.

This Plan should be approved because it complements the reliability initiatives and reporting requirements committed to by the Company in the aforementioned Settlement Agreement, promotes improved electric reliability for customers in North Dakota, and complies with the Commission's Order in the Company's previous rate proceeding.

II. DESCRIPTION OF THE APPLICANT

Xcel Energy is a Minnesota corporation duly authorized to do business in the State of North Dakota as a foreign corporation. The Company conducts business in the State of North Dakota as a public utility subject to the jurisdiction and regulation of the Commission pursuant to Title 49 of the N.D.C.C. The full name and address of the Company is:

Northern States Power Company, a Minnesota corporation
414 Nicollet Mall
Minneapolis, Minnesota 55401

The Company also operates in North Dakota from the following address:

Northern States Power Company, a Minnesota corporation
2302 Great Northern Drive
Fargo, North Dakota 58102

A Certificate of Incorporation is on file with the Commission and is incorporated herein by reference.

Xcel Energy has service territory in five upper Midwest states including North Dakota. We presently serve approximately 89,000 retail electric customers in

and around Fargo, Grand Forks, and Minot, North Dakota. In addition to the electric distribution infrastructure to service these localities, the Company owns just over 250 miles of transmission lines and 14 substations in North Dakota.

III. BACKGROUND

In 2011, during the Commission's review of Xcel Energy's December 20, 2010 electric rate application, the Company experienced three unusual and high profile electric outages in the Fargo, ND area.[1] These events followed an unusual August 2010 outage in a north Fargo neighborhood which damaged certain household appliances and electronic equipment.

As a result, the Commission and Staff expressed concerns regarding the condition and maintenance of the Company's electric system in North Dakota. Ultimately, the Commission decided that these events should be reviewed as part of the pending rate case and addressed in settlement negotiations and/or the final rate case order.

Subsequently, Xcel Energy and Staff agreed to include in the Settlement Agreement a number of initiatives intended to improve reliability in the state. These included:

1. investing $2.5 million in the installation of Intelliteam "smart" switches on key distribution feeders in the Fargo area,

2. adding an additional vegetation management crew in North Dakota and reducing the overall trimming cycle time to 4 years,

[1] These outages include a February 12 substation outage impacting 16,000 customers, the Memorial Day wind storm 39,000 customers, and a November 14 transmission line outage affecting 48,000 customers.

3. hiring and locating an electrical engineer in Fargo, ND to increase focus on North Dakota system reliability management, and

4. proactively removing, within three years, the non-standard 500 MCM underground cable remaining on our North Dakota system.

In addition to these efforts, the Commission directed the parties to consider including in the Settlement a provision requiring the Company to submit a recommendation or proposal to establish a reliability-focused, performance-based regulation ("PBR") plan for its North Dakota electric system. This was later memorialized in Section IV, Part E of the Settlement Agreement, as well as Order Point No. 2 of the Commission's February 29, 2012 Order ("February 29 Order") approving the Settlement Agreement. Order Point No. 2 stated the following:

> *Within 90 days of this Order, NSP shall file with the Commission a plan for performance-based regulation with metrics to measure and evaluate system reliability, including rate of return incentives/penalties to improve North Dakota service reliability and reduce costs to improve return on investment.*

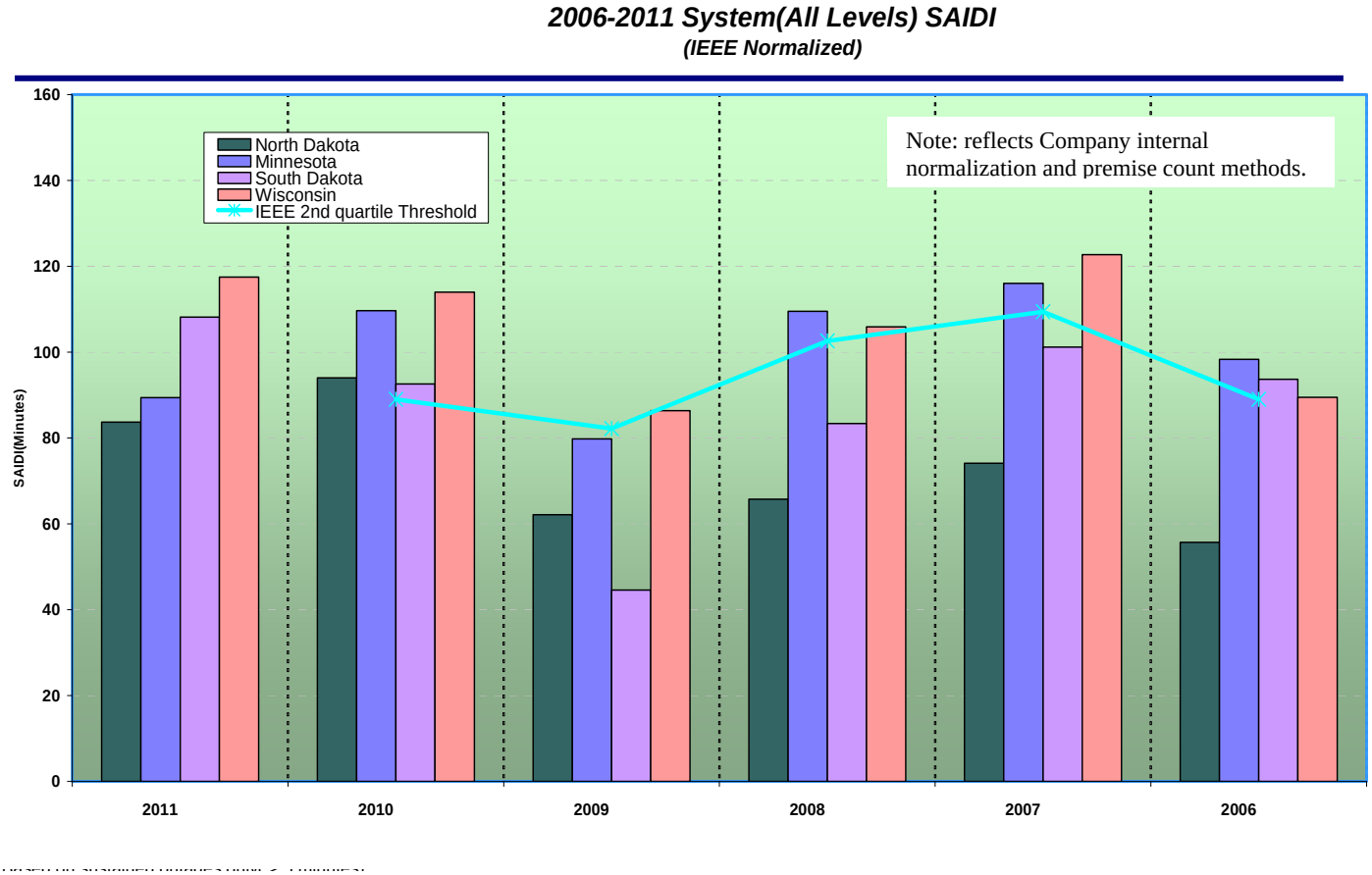
Since that time, the Company has consulted with Staff to develop a proposal that is straightforward, balanced, and provides meaningful financial incentives to promote higher levels of system reliability. That proposal is contained in this petition.

Xcel Energy's Reliability in North Dakota

In spite of the unusual outages that occurred during the rate case proceeding, Xcel Energy's overall electric system reliability over the past several years in North Dakota has been very good. As shown in Attachment A, the Company's annual outage duration time per North Dakota customer (referred

to in the industry as System Average Interruption Duration Index, or "SAIDI") in North Dakota in 2009 and 2010[2] (the two most recent years in which data was available) has been in the top half of all Midwest utilities participating in the Institute of Electrical and Electronic Engineers ("IEEE") annual reliability survey. In addition, as shown in Figure 1 below, for the past six years the Company's average SAIDI performance in North Dakota has exceeded that of the other states the Company serves in the upper Midwest system.

Figure 1



During the five year term (2001 to 2005) of the PLUS performance-based regulatory plan in North Dakota, the Company achieved or exceeded its

[2] Reflects sustained outages (i.e., greater than 5 minutes in length), normalized to exclude those outages caused by storms and/or other unusual circumstances during designated Major Event Days ("MEDs").

frequency (SAIFI) and restoration time (CAIDI) reliability standards nine of ten times. Only once, in 2002, did the Company miss its SAIFI performance standard (see Attachment B).

Xcel Energy believes it has been able to achieve a consistently high level of reliability performance in the past primarily because of its portfolio of well-developed reliability management programs, the skill and responsiveness of its field crews, and an excellent system of reliability measurement and reporting. Nonetheless, the Commission has encouraged the Company to take its reliability performance to a higher level by requesting Xcel Energy to determine what incremental, cost-effective steps it could take to improve reliability even more, and then approving initial funding of those initiatives in its final February rate case Order.

IV. RELIABILITY PERFORMANCE PLAN

The proposed RPP complements the reliability initiatives and reporting commitments in the Settlement Agreement by providing an additional focus on performance *results* and establishing direct financial implications for Xcel Energy's reliability in North Dakota. The Company and Commission Staff have agreed to a fairly straight forward trio of reliability metrics intended to measure performance in diverse ways. In addition, the financial incentives proposed in the Plan are substantive enough to have an influence on the Company's plans and efforts regarding reliability.

KEY COMPONENTS

The key components of the RPP include:

1) The establishment of an "excellence threshold" and a related financial incentive for the Company's reliability performance, as measured by the System Average Interruption Duration Index ("SAIDI"),

2) Compensation, in the form of annual, one-time billing credits, to Customers who Experience Multiple service Interruptions ("CEMI") in a given Plan year, and

3) Reporting to the Commission of customer perceptions of Xcel Energy's reliability as determined by an annual reliability-focused survey.[3]

The key RPP components are summarized in Table 1 below:

Table 1

Metric	Target	Incentive	Potential Impact
SAIDI	Achieve average annual outage time per customer ≤ 58.8 minutes	Award	$250,000 - $1,000,000
CEMI	Issue $50 credits to all customers experiencing > 3 sustained outages	Penalty	$20,000 - $220,000 (est.)
Survey	Report customer ratings (0-10) of reliability and outage services	na	$0

SAIDI STANDARD AND "EXCELLENCE THRESHOLD"

One of the most common and comprehensive industry measures for reliability is SAIDI. This indicator measures the total amount of time, on average, that each customer is out of electric service during a given calendar year. SAIDI is a product of both the frequency of outages on a utility's electric system, and the

[3] This third component does not contain a financial incentive because the Company is implementing new surveying methods in 2013, and it would be difficult to determine a reasonable standard without any comparable historical results. However, the survey results will provide a unique and revealing indicator of the Company's reliability performance and will help to establish a future performance plan framework, if desired.

time it takes the utility to restore power when an outage occurs. Thus, a lower SAIDI reflects a better degree of reliable service.

The RPP establishes a financial incentive for the Company to achieve a very low SAIDI result (in minutes). This threshold is defined in the Plan as the SAIDI "Excellence Threshold." The proposed Excellence Threshold is 58.8 minutes. This means that for any given year, if the Company can achieve a total annual outage time per customer of 58.8 minutes or less, it would qualify for a financial incentive. The proposed Excellence Threshold represents more than a 13 minute improvement compared to the SAIDI average of 72.0 minutes for the most recent five year period (2007-2011).

As detailed on Attachment C, the Excellence Threshold was developed using the following steps:

1. determine our average SAIDI result for the previous five years (2007-2011) of 72.0 minutes,

2. reduce this level by 2.8 minutes to reflect the annual SAIDI improvement that can be reasonably expected from the installation of 25 Intelliteam switches in 2012, and

3. determine adjustment, in minutes, to achieve a 15 percent improvement relative to the Intelliteam-adjusted average.

Under the RPP, the financial incentive for achieving an annual SAIDI result of 58.8 minutes or lower in North Dakota ranges from as low as $250,000 to as high as $1,000,000, depending on the Company's revenue deficiency during the plan year[4]. A base incentive amount of $250,000 would be awarded in any year

[4] The revenue deficiency is determined relative to the currently authorized Return on Equity ("ROE") of 10.4 percent

the Company can achieve the SAIDI Excellence Threshold, regardless of its reported electric earnings. The amount would be increased, however, for every dollar of revenue deficiency reported for the Plan year and capped when the total incentive reached the maximum of $1,000,000. Table 2 below shows examples of how the SAIDI performance incentive would be modified under earnings scenarios above and below the authorized Return on Equity ("ROE") of 10.4 percent.

Table 2 (Authorized ROE = 10.4 %)

SAIDI Result	If ROE = 10.00% (defic = $1.1 M)	If ROE = 10.25% (defic = $0.4 M)	If ROE ≥ 10.4% (defic = $0.0)
> 58.8 min.	No award	No award	No award
≤ 58.8 min.	$1,000,000	$650,000	$250,000

Note: Each 1.0% change in ROE represents about $2.8 M in revenue requirements

As an example (and shown above), if the Company reported earnings of 10.25 percent Return on Equity ("ROE"), the corresponding earnings deficiency of 15 basis points (10.40 percent less 10.25 percent) would equate to a revenue deficiency of about $400,000. This revenue deficiency would be added to the base incentive amount of $250,000 to arrive at the total Excellence Threshold amount of $650,000.

For purposes of determining the annual SAIDI result, an outage is defined as the inability to deliver power to a firm North Dakota customer for a "sustained" period of time (i.e., greater than 5 minutes). Outages occurring on Major Event Days ("MEDs") will be excluded - or "normalized" - out of the SAIDI calculation. MEDs are defined as days in which storms or other statistically outlying events generate unusually high "customer minutes out" ("CMOs"). The normalization process ensures that the measure is reflecting

outage causes and conditions that the Company has some ability to influence with its reliability planning, resources, and actions.

The method of normalization was developed by the IEEE in an effort to bring more consistency to reliability measurement and reporting across the utility industry. The IEEE methodology determines a MED based on the amount of "customer minutes out" for the day reaching a certain threshold – regardless of whether those CMOs were the result of one large outage or several distinct outages. For Xcel Energy, this method represents a change from its previous internally-defined MED which was based on the number of outage *events* (as opposed to outage minutes) in a given day exceeding a statistically determined threshold.

To define a MED for normalization purposes, the RPP will use the standard 1366-2003 *Guide for Electric Power Distribution Reliability Indices* published by the IEEE. See Attachment D for more information about the IEEE normalization process.

While the Excellence Threshold represents a very challenging SAIDI target, Xcel Energy is agreeable to the level because it establishes a stretching goal consistent with our ongoing efforts to improve our reliability. Successful execution of the reliability initiatives encompassed in the Settlement Agreement positions the Company to build on its history of excellent reliability which compares well with other utilities in the region.

The reward-only mechanism is designed to strongly encourage a higher level of reliability performance level rarely achieved in the past. The SAIDI Excellence Threshold metric and the corresponding incentive is intended to focus the Company on achieving substantially better results rather than simply meeting an acceptable performance level so as to avoid any penalties. And, as explained

further in the next section of this petition, the SAIDI incentive provides balance to the Plan in combination with the "downside-only" financial impacts of the proposed CEMI credit program. While the SAIDI award potential is nominally higher than the range of annual CEMI payouts, there is considerably lower probability that the Excellence Threshold will be achieved.

CUSTOMERS EXPERIENCING MULTIPLE INTERRUPTION CREDITS

The RPP also includes a proposal to provide compensation to customers who are inconvenienced more than three times in a given year by sustained electric service interruptions. The CEMI component of the RPP would provide an annual, one-time $50 billing credit toward each customer account associated with each service location so impacted.[5]

At the end of each calendar year, the Company will conduct a review of its outage database and determine each customer premise that has experienced more than three sustained outages during the year. Beginning with bills rendered on May 1 of the following year, a one-time bill credit of $50 will be paid to the customers at the qualifying premises as of the close of the Plan year.

Xcel Energy has familiarity in administrating CEMI credits as this reliability service quality program is presently in effect in two of its largest jurisdictions – Minnesota and Colorado. The Company will expand its database query and reporting processes to include the North Dakota service area. And, while the credit criteria is different in Minnesota and Colorado (credits in those states are paid to customers experiencing more than five interruptions per year), we can

[5] For purposes of determining who qualifies for CEMI credits, outages must be sustained (> 5 minutes) and all Major Event Day and public damage outages are excluded.

accommodate the stricter outage threshold (more than three per year) proposed for North Dakota in this Plan.

A review of CEMI history in North Dakota indicates a wide variance in the potential for annual customer payouts under this program. From 2005 through 2011, an approximate number of customers impacted by more than three outages per year varied from around 400 per year to nearly 4,400 per year. Had the CEMI credit been in place during those years, Xcel Energy would have issued annual billing credits ranging in total from $20,000 to nearly $220,000 (see Attachment E).

As stated previously, the downside-only financial impact to the Company of the CEMI credit program balances the upside-only financial potential of the SAIDI performance threshold, thereby providing some symmetry to the reward/penalty structure of the RPP.

RELIABILITY SATISFACTION SURVEY

A third measure of reliability performance the Company proposes to include in this RPP is our customers' ratings of the electric reliability and outage service provided by the Company. Xcel Energy has employed customer surveys for decades to measure and track our customers' perceptions about many different aspects of our service. The Company proposes in this RPP that it annually report to the Commission the results of its reliability-based satisfaction ratings.

The Company is currently testing different surveying techniques and may transition from phone-based surveys to an on-line approach for its residential and business customers. Other changes are being considered for the style and content of the survey questions themselves. Because of these potential modifications for 2013 and beyond, we do not propose developing a

performance standard or attaching any financial incentives to this metric. Final decisions have not yet been made with respect to the survey format and process, and it would be difficult to establish a performance standard without the benefit of comparable historical results. Nevertheless, including survey results as part of this RPP has merit, in that it 1) conveys to the Commission what our customers think about Xcel Energy's electric reliability, 2) provides insight into our efforts to understand what drives our customers' perceptions, and 3) helps to establish a performance baseline for the potential use of surveys in a future performance-based regulatory model.

The types of reliability questions that would be reported on in this RPP are currently under final development, but the primary performance rating questions are expected to be similar to the following:

Residential Customers (the current on-line question):

Overall, how satisfied are you with Xcel Energy's service reliability (e.g. Continuous service – Service is always on, fast repairs when problems arise)?

Business Customers (the current phone question):

Based on anything you have heard or any impressions that you have, how would you rate Xcel Energy's performance on providing reliable electric service?

Survey results are compiled by three main customer classes (residential, business, and large commercial) as part of the Company's comprehensive and ongoing "Voice of the Customer" survey process. Ratings are done using a scale of 0 to 10, and in the annual RPP results report the Company will indicate the overall percent of customers that rated the Company's reliability positively (i.e., ratings of 6-10) or as "excellent" (i.e., ratings of 8-10).

Ultimately, the Company will establish either a phone-based or on-line survey approach, and other types of questions will be posed to probe deeper into the factors shaping our customer's perceptions. The Company will work with Commission Staff in future months to consider what other survey information would be meaningful to the Commission.

OTHER PLAN TERMS

Length of RPP The RPP will be in effect for a period of 3 years, with calendar year 2013 results serving as the first full year of the Plan. It is anticipated that the Commission and Company will continue to have constructive dialogue at all times during the plan term, and propose refinements if necessary and mutually agreed upon.

Rate Impact Base rates will not change as a result of this plan. A SAIDI incentive, if achieved, would be recovered through a one-time surcharge added to the Fuel Adjustment Clause (with Commission approval of any needed variance). CEMI customer credits would not be recoverable from customers in either base rates or any other temporary charge.

Annual Reporting On or before May 1 of the year following the fiscal period being reviewed, Xcel Energy will file, either as a section in the current annual Report of Regulated Earnings, the annual report of Reliability that will be submitted in compliance with the Settlement Agreement in Case Nos. PU-10-657 and PU-11-55, or as a separate document, a RPP summary report showing:

1. The results of Xcel Energy's annual SAIDI performance, normalized under the IEEE methodology, with a comparison to the RPP

Excellence Threshold. The summary will also show results for any prior RPP years;

2. The number of CEMI credits to be issued and total CEMI payout for the year, along with results for the previous RPP years;
3. The results of the reliability-focused customer satisfaction rating in our "Voice of the Customer" survey. Customer ratings of our reliability, on a scale of 0 to 10, will be shown on an overall basis. Prior year RPP results will be shown as well;
4. The calculation of the SAIDI incentive, if achieved. Included with this information will be the actual (without weather normalization) amount of any revenue deficiency reported to the Commission for the Plan year and its impact, if any, on the determination of the final Excellence Threshold award. In addition, a summary of the recovery (surcharge) plan will accompany the summary report, if applicable;
5. A brief commentary of the reporting year's SAIDI, CEMI, and survey results will also accompany the summary report;
6. Any other reliability information or updates that the Company deems relevant to the Plan year or that has been requested by the Commission or Staff.

A mock version of a proposed summary report (without commentary) is provided as Attachment F to this filing.

Commission Review It is anticipated that upon receipt of the annual RPP report in May, the Commission Staff would review the information and, if necessary, submit any information requests to the Company. Once Commission Staff completes its review of the report and issues a memo of concurrence with the results, the Company will, if applicable, proceed with steps to effect a one-time surcharge on (and after) September 1 of the

following year. Use of a "shoulder month" like September will minimize the impact to customers of a SAIDI excellence threshold surcharge, which would have an estimated one-time impact of $1 to $6, depending on the earnings-adjusted SAIDI award.

V. PLAN BENEFITS

The proposed RPP is a prudent plan for several reasons. The Plan is aligned well with our culture of continuous improvement and achieving the high levels of reliability we have always strived for. The RPP provides a "capstone" to the portfolio of reliability projects and reporting requirements committed to in the Settlement Agreement. Specifically, the benefits of the Plan include:

Focus on Results The reliability commitments encompassed in the existing rate case Settlement Agreement focuses mainly on specific actions and information sharing. The RPP adds performance measurement and direct financial implications to these commitments to promote successful implementation of these efforts and add further accountability.

Balanced Incentives The Plan proposes to balance the downside-only impact of the CEMI credits with an upside-only incentive for achieving excellent SAIDI performance (though more difficult to achieve). The use of both "carrots" and "sticks" is appropriate and effective in promoting improved performance, and this Plan includes both.

Relevant Metrics The performance indicators included in this RPP correspond well with the types of initiatives currently being undertaken by the Company to improve reliability. SAIDI is a comprehensive, industry-wide metric that will properly demonstrate changes (reductions or increases) in

outage frequency and restoration times. SAIDI will be directly affected by the Intelliteam Switch project, our enhanced vegetation management efforts, and the three-year program to replace older, non-standard underground cable remaining on our system. The CEMI and Reliability survey components of the RPP complement the overall SAIDI metric by providing a localized, "customer experience" focus on reliability.

Straightforward and Administratively Simple The proposed Plan utilizes three well-established and familiar reliability measurements to determine if the Company's electric reliability performance is meeting customer and regulator expectations. Efforts were made to avoid complicated incentive schemes so that the implications of achieving better reliability would be easily understood and remembered by Xcel Energy's employees and ND regulators alike.

Complies with Settlement and Rate Order The RPP meets the requirements and/or intentions of the Settlement Agreement and February 29 Order. Meaningful, comprehensive metrics are included in the Plan as well as financial implications substantive enough to influence Company decisions and actions. A soft tie-in to the Company's earnings (i.e., ROE) is also included to mitigate concerns that customers could be charged more than what is appropriate during the Plan term. The three year plan term provides enough time for reliability actions to take root and their impacts reflected in the proposed metrics.

VI. CONCLUSION

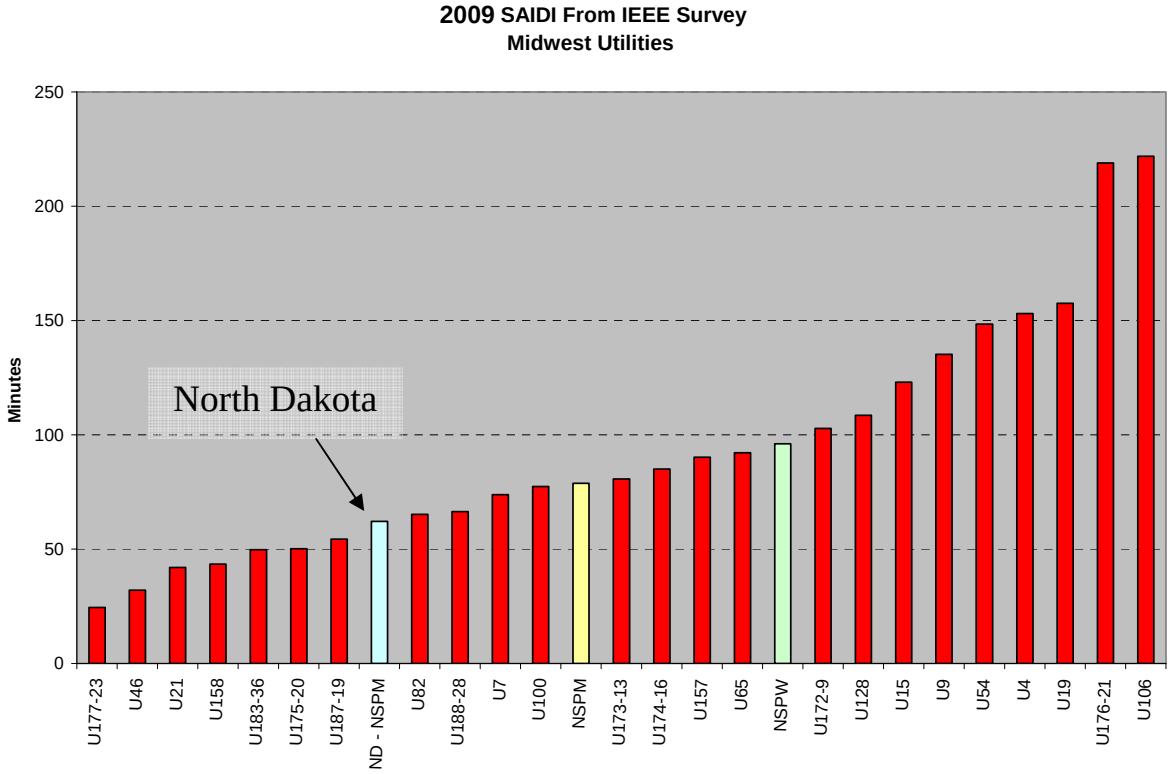
For the foregoing reasons, Xcel Energy requests that the Commission find the proposed Reliability Performance Plan complies with the Settlement Agreement and February 29, 2012 Order in Case Nos. PU-10-657 and PU-11-55, provides meaningful and balanced financial incentives to facilitate improved reliability, and is in the public interest. Xcel Energy respectfully requests that the Commission approve the proposed RPP effective for 2013, 2014, and 2015 calendar years.

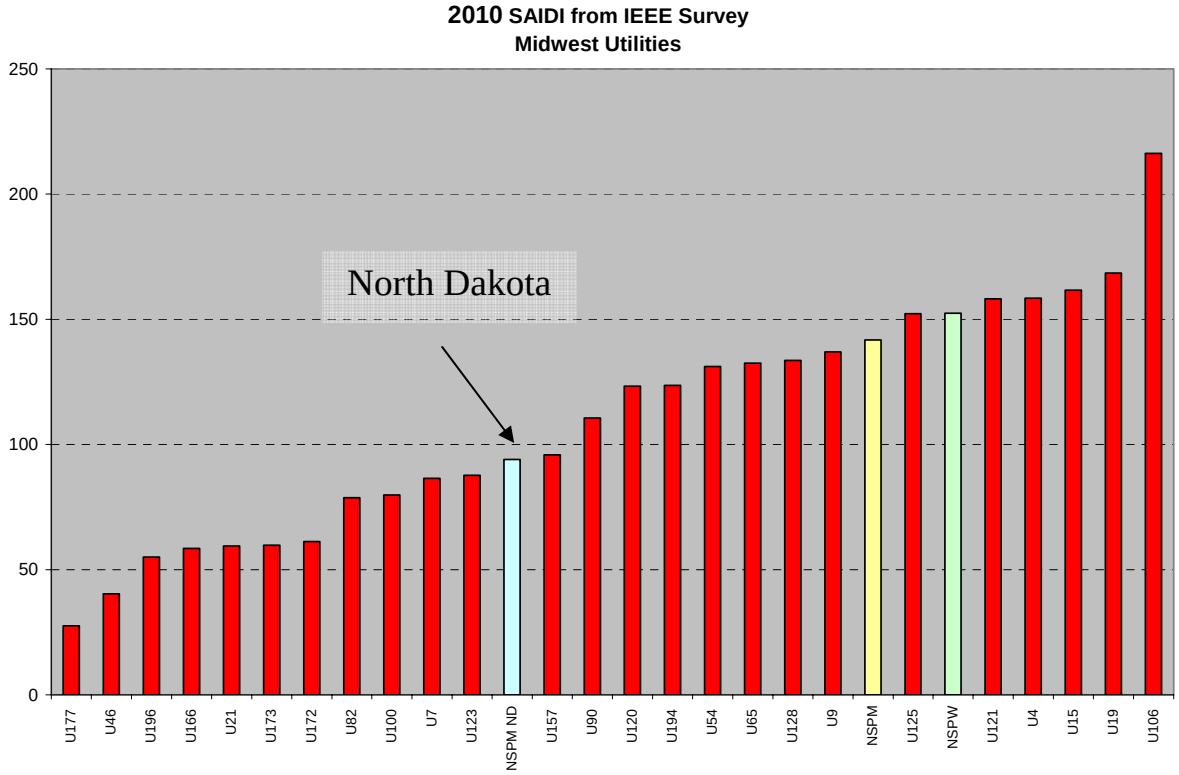
Respectfully Submitted,

By: _____
David H. Sederquist
Sr. Regulatory/Financial Consultant

Dated: June 1, 2012

Attachment A





Note: SAIDI results reflect Xcel Energy normalization method, premise-based customer counts, and ND service center region

Attachment B

PLUS Plan Reliability Results

	Year	SAIFI Standard	Actual SAIFI	Status
1	2001	0.77 to 1.04	0.90	Meet
2	2002	0.77 to 1.04	1.09	Fail
3	2003	0.77 to 1.04	0.90	Meet
4	2004	0.77 to 1.04	0.90	Meet
5	2005	0.77 to 1.04	0.85	Meet

	Year	CAIDI Standard	Actual CAIDI	Status
6	2001	75.6 to 102.4	66.60	Exceed
7	2002	75.6 to 102.4	74.30	Exceed
8	2003	75.6 to 102.4	54.70	Exceed
9	2004	75.6 to 102.4	92.00	Meet
10	2005	75.6 to 102.4	101.50	Meet

Note: SAIFI and CAIDI results reflect Xcel Energy normalization method, premise-based customer counts, and ND service center region.

Determination of SAIDI Excellence Threshold

Five Year SAIDI History

	Year	Minutes	
1	2007	57.0	
2	2008	65.0	
3	2009	59.2	
4	2010	98.4	
5	2011	80.5	
6	Avg.	72.0	minutes

	Excellence Threshold	Minutes
7	Five Year Average	72.0
8	Intelliteam Switches Adjustment	-2.8
9	Adjusted Average	69.2
10	15% Improvement Goal	-10.4
11	Excellence Threshold	58.8

Estimated Intelliteam Impact

		SAIDI	% CMO due to Fdr outages	% ND Cust on Intell Fdrs	% Intell Fdr Cust restored	Minutes saved
12	2007	57.0	47.3%	16.3%	50.0%	2.2
13	2008	65.0	47.3%	16.3%	50.0%	2.5
14	2009	59.2	47.3%	16.3%	50.0%	2.3
15	2010	98.4	47.3%	16.3%	50.0%	3.8
16	2011	80.5	47.3%	16.3%	50.0%	3.1
17	Average	72.0				2.8

Note: Data reflects State of ND outages, IEEE normalization methodology, and meter-basis customer counts.

IEEE Normalization Standard Overview

IEEE standard 1366-2003 was developed in an effort to foster uniformity in the development of reliability indices and to facilitate consistent reporting practices among utilities. IEEE standard 1366-2003 uses a statistical approach to define and identify Major Event Days (MEDs). MEDs are days in which outage events exceed reasonable design and or operational limits of the electric power system. When a MED is identified all outages originating on that day are excluded from the annual SAIDI calculation and are analyzed separately. This method allows for easier identification of reliability trends in daily operations that would otherwise be hidden by the statistical effects of major and/or unusual outage events.

It has been shown that utility outage data does not follow a "normal distribution" but instead generally follows a "log-normal distribution." The threshold (T_{MED}) used to determine if a day is a MED is based on 2.5 standard deviations above the average natural-log of daily SAIDI over the previous five year period. Any day with a SAIDI result that exceeds the T_{MED} is considered a MED and is not used in calculating the annual SAIDI. T_{MED} is calculated at the end of each year for use in the following year's normalization of reliability indices.

Specifically, the calculation is made as follows:

- Collect values of daily SAIDI for the five sequential years ending on the last day of the year prior to the SAIDI reporting year. So, to determine T_{MED} for 2011, daily SAIDI data from 2006-2010 is used.[1]
- Exclude days that do not have a SAIDI value (i.e., days that do not have any interruptions)
- Take the natural logarithm (ln) of each daily SAIDI value in the data set.
- Find α (Alpha), the average of the logarithms (also known as the log-average) of the data set.
- Find β (Beta), the standard deviation of the logarithms (also known as the log-standard deviation) of the data set.
- Compute the major event day threshold, $T_{MED,}$ using the following equation:

  $T_{MED} = e^{(\alpha+2.5\,\beta)}$

All outages not originating on a MED and not due to public damage are then used to calculate SAIDI.

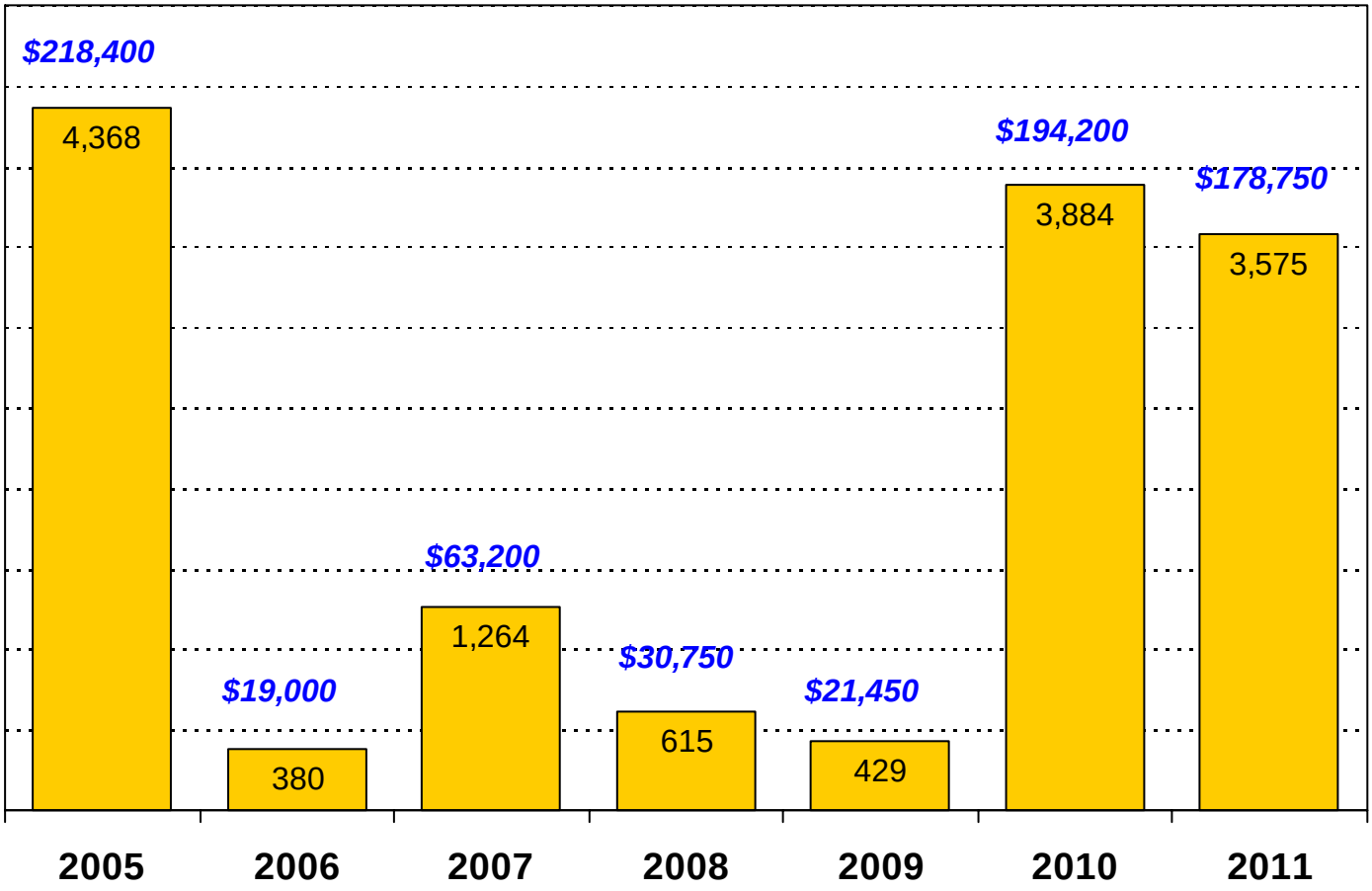
$$SAIDI = \frac{\sum Customer\ Minutes\ Out}{Total\ Number\ of\ Customers\ Served}$$

[1] Since daily SAIDI data was unavailable previous to 2005 for Xcel Energy, to restate its historical results the Company used the data from 2005-2009 to determine T_{MED} for each of the years 2007, 2008, 2009 and 2010.

Attachment E

CEMI Billing Credits

Estimate of Historical Credits and Total Payouts by Year



Xcel Energy Reliability Performance Plan
Annual Results Report

** Draft Template - Data is for presentation purposes only **

A. SAIDI (System Average Interruption Duration Index)

		2013	2014	2015
1	Excellence Threshold (minutes):	58.8		
2	Actual SAIDI Result (minutes):	68.0		
3	Base Award:	$0		
4	Authorized Return on Equity:	10.40%		
5	Actual Return on Equity:	9.80%		
6	Revenue Deficiency:	$1,680,000		
7	**Final SAIDI Award:**	**$0**		

B. CEMI (Customers Experiencing Multiple Interruptions)

		2013	2014	2015
8	# Customers with > 3 outages:	1,200		
9	Credit Amount:	$50		
10	**Total CEMI Payout:**	**$60,000**		

C. Reliability Satisfaction Survey

		2013	2014	2015
11	% Customers Rating "Positive" (6-10):	97%		
12	**% Customers Rating "Excellent" (8-10):**	**91%**		