



414 Nicollet Mall
Minneapolis, Minnesota 55401

November 10, 2016

—VIA ELECTRONIC FILING—

Daniel P. Wolf
Executive Secretary
Minnesota Public Utilities Commission
121 7th Place East, Suite 350
St. Paul, Minnesota 55101

RE: COMMISSION INQUIRY INTO FEES CHARGED ON QUALIFYING FACILITIES
DOCKET NO. E999/CI-15-755

Dear Mr. Wolf:

Northern States Power Company, doing business as Xcel Energy, submits the enclosed Reply Comments in the above-referenced docket regarding the Commission's inquiry into fees charged to qualifying facilities.

Pursuant to Minn. Stat. §216.17, subd. 3, we have electronically filed this document, and served copies on all parties on the attached service list.

If you have any questions regarding this filing, please contact me at (612) 215-53672952 or amy.s.fredregill@xcelenergy.com.

Sincerely,

/s/

AMY S. FREDREGILL,
RESOURCE PLANNING AND STRATEGY MANAGER

Enclosures
c: Service List

STATE OF MINNESOTA
BEFORE THE
MINNESOTA PUBLIC UTILITIES COMMISSION

Beverly Jones Heydinger	Chair
Nancy Lange	Commissioner
Dan Lipschultz	Commissioner
Matthew Schuerger	Commissioner
John Tuma	Commissioner

IN THE MATTER OF A COMMISSION
INQUIRY INTO FEES CHARGED ON
QUALIFYING FACILITIES

DOCKET NO. E999/CI-15-755

REPLY COMMENTS

INTRODUCTION

Northern States Power Company, doing business as Xcel Energy, submits this Reply to the October 17, 2016 supplemental comments filed in this proceeding.

We appreciate the Department of Commerce's (Department's) review, including their affirmation that:

- the scope of this Inquiry is limited to QF fees charged prior to the July 1, 2015 effective date of the amendment to Minn. Stat. 216B.164;
- the July 1, 2015 amendment did not change the statutory provisions for utilities such as Xcel Energy;
- Minnesota Statutes and rules prior to 2015 allow for the reasonable recovery of interconnection costs;
- rates filed with and approved by the Minnesota Public Utilities Commission are rates that a public utility may include in its tariffs and be charged to QFs until changed on a going-forward basis;
- that it does not object to the use of monthly fees for cost recovery; and that
- the Company provided detailed cost justification for its metering fee.

We respond here to three issues raised in the October 17, 2016 comments: we discuss why the Company's metering charges are properly assessed on a monthly basis, why no customer refunds are warranted, and the reasonableness of the Company's metering charge.

I. Metering Charges are Properly Assessed on a Monthly Basis

In its supplemental comments, the Department clarified that it does not object to the use of a monthly fee for recovery, but highlighted its expectation that the costs "be

reflected in the Uniform Statewide Contract presented to QF Providers” and that the Department “expects IOUs to abide by the terms of the Uniform Statewide Contract provision that permits the QF options regarding how those costs are paid.”¹

While we appreciate that the Department is not opposed to a monthly fee, we clarify that the Company’s monthly metering fee provisions are appropriately attached to the customer’s contract and that the Company’s monthly metering charge is in full compliance with the terms of the Uniform Statewide Contract. As explained below, we believe the Department misinterprets a portion of the Uniform Statewide Contract.

The Department highlights Section 8 of the prior Uniform Statewide Contract (which is the same as Section 12 of the current version of this contract)², which states:

The QF is responsible for the actual, reasonable costs of interconnection which are estimated to be \$_____. The QF will pay the Utility in this way: _____.

The Department appears to understand this provision to refer to a QF customer’s election of a means or frequency of paying the metering fee. This provision instead addresses matters such as whether all of the non-recurring costs should be paid before work begins (as would be expected where costs are minimal), or whether the customer will follow the Section 10 tariff process, which allows for payment up-front of one-third of the estimated interconnection costs with posting an acceptable Letter of Credit for the remaining amounts, before work begins.³

In the Commission’s 1983 order, at pages 62-64, the Commission gave the example of applying a monthly metering charge to the QF customer. In the same order, at pages 44-45, the Commission ruled that interconnection costs must be paid by the QF “when the costs are incurred according to any schedule agreed upon by the QF and the utility” and removed a proposed approach which would have allowed for amortization of the QF’s interconnection costs. The 1984 order adopted the Uniform Statewide Contract without comment on this provision – other than this allowed the parties “to specify the means of payment to the utility.” The 1983 and 1984 orders are available on e-dockets at the following links:

<https://www.edockets.state.mn.us/EFiling/edockets/searchDocuments.do?method=showPoup&documentId={51CEEA5C-FFBD-4BA7-BCB5-121FF7F4105D}&documentTitle=143849>

¹ Department of Commerce Comments, October 17, 2016, page 7.

² The numbering sequence in the Uniform Statewide Contract was modified following the Commission’s rulemaking proceeding in Docket No. E-999/R-13-729.

³ See, Company Section 10 tariff, at sheet 117.

<https://www.edockets.state.mn.us/EFiling/edockets/searchDocuments.do?method=showPoup&documentId={E28E3754-E5A1-4B3A-9824-836ABDAD5FFB}&documentTitle=328651>

In those portions of the Uniform Statewide Contract where the DG customer selects the purchase and sale rate (Sections 2, 3, 4, and 5 of the current version, and Section 2 of the original version), all contracts have the exact same clause which states: “*A copy of the presently filed rate schedule is attached to the contract.*” The *monthly* metering charge is tariffed in this rate schedule which is attached to the contract provided to the customer; thus, when entering into the contract, the customer is fully informed of the monthly metering rate.

Also, given that the monthly metering charge is a tariffed rate, by law it should be charged on a monthly basis. “Utilities are required to file schedules with the commission ‘showing all rates, tolls, tariffs and charges which it has established ***.’ Minn. Stat. § 216B.05, subd. 1.... Filings made with the commission by utilities ‘continue in force until amended by the public utility or until changed by the commission ***.’ Minn. Stat. § 216B.09, subd. 3....” A filed tariff is “an inherent part of the lawful rate changed to consumers.”⁴

For all of these reasons, the Company is appropriately using a monthly mechanism and is complying with the requirements of the Uniform Standard Contract and Minnesota Rules. As we have previously stated, however, the Company is open to a forward-looking policy discussion about how the Commission wishes to allocate DG system costs and benefits, including whether DG customers should pay for metering costs on an upfront basis.

II. No Refund Should be Ordered.

The Department recommends that, if the Commission determines retroactively that affirmative approval was required to change metering fees, a refund should be made to customers. We appreciate that the Department has narrowed the scope of its refund recommendation to the incremental difference in rates, which we estimate to be approximately \$0.15 per month, and to the limited time period between January 2, 2007 and October 23, 2009. Based on preliminary calculations, we estimate this to impact fewer than 150 customers at a total dollar amount less than \$900.

The issue here is whether the Company, with its January 2, 2007 Petition which increased the tariffed DG monthly metering charge by \$0.15, provided proper notice

⁴ *Northern States Power Company v. City of Oakdale*, 588 N.W.2d 534, 537-538 (Minn. App. 1999), citing *Computer Tool & Eng'g, Inc., v. Northern States Power Co.*, 453 N.W.2d 569, 573 (Minn. App. 1990).

to the Commission. Please see Attachment A for a copy of this Petition.⁵ Please note the 2007 Petition was designated as a Non-Public document at the time of filing. However, we believe the data no longer merits trade secret protection due to the lapse of time. We are, therefore, providing the 2007 Petition as a Public document in conjunction with our Reply Comments. The 2007 Petition clearly states, “Xcel Energy respectfully requests that the Commission approve the Company's proposed tariff revision for cogeneration and small power production.”

This Petition, which sets forth the 60 day notice, was proper for several reasons. First, it is consistent with statute. State statute allows for a rate change upon 60 days notice unless the Commission otherwise orders. (“Subdivision 1. Notice. Unless the commission otherwise orders, no public utility shall change a rate which has been duly established under this chapter, except upon 60 days' notice to the commission.”)⁶ The submission to the Commission, as well as the extensive service list, demonstrates that proper notice was given.

Second, the 60 day notice approach for changing this type of rate is consistent with the Commission’s 1984 Order⁷ discussed at length in the Company’s June 6, 2016 comments, at page 4, and in Attachment C to that filing at pages 3-5. We understand that the Commission in its June 27, 2016 order in Docket No. 16-09 has now required an affirmative order before these rate changes can go into effect, and the Company will follow that directive on a prospective basis.

Third, this approach has been the custom and practice for nearly thirty years, based on the 1984 Order which set forward the procedure that remained in effect until the Commission recently addressed the procedure in its June 27, 2016 Order. We note the contemporaneous construction of a statute by an administrative agency should not be lightly overturned or disregarded where the construction has been acted upon for many years. *U.S. v. State of Minnesota*, 113 F.2d 770, 774 (8th Cir. 1940). Also, long-term acquiescence in the practical construction placed upon a statute by an administrative official is entitled to great weight in the construction thereof. *City of St. Paul v. Hall*, 239 Minn. 378, 381-382, 58 N.W.2d 761, 763 (Minn. 1953).

Fourth, ordering a refund of a properly tariffed rate would constitute retroactive ratemaking, which is disallowed. The Company discussed this extensively in its June 6, 2016 comments at page 5, and in Attachment “C” to that filing at pages 11-13. Instead of restating arguments, we incorporate them by reference here. Just as

⁵ It appears to the Company that a docket number was not assigned to this Petition, consistent with the practice for this annual filing.

⁶ Minn. Stat. § 216B.16, subd 1.

⁷ October 16, 1984 Order in Docket No. E999/R-84-105 (*In the Matter of the Proposed Adoption of Amendments to the Rules of the Minnesota Public Utilities Commission Governing Cogeneration and Small Power Production*).

retroactive ratemaking is improper and impermissible, procedural rules established by the Commission and supported by state statute, too, may not be retroactively modified.

Finally, there are practical reasons to not pursue a refund, including that it is likely not cost effective to process refunds to affected customers for the amount at issue. The costs associated with identifying the original customer paying metering fees nine years ago in instances where the premise or account has subsequently changed hands, and processing the refund, is likely not cost effective. For all of the above reasons, we do not support the recommendation of the Department to issue customer refunds in this matter. Should the Commission order such a refund, however, the Company will comply and attempt to identify the parties to be refunded.

III. The Company's Fees are Reasonable.

The Energy Freedom Coalition of America (EFCA), in contrast to the Department, does not question the appropriateness of the Commission's established procedure for approving annual changes to metering fees. EFCA instead focuses on the reasonableness of the utilities' metering charges and their cost basis. The Department of Commerce, however, concludes that "Xcel provided a detailed calculation of the incremental cost of serving a QF customer, and demonstrated that their fee actually under-recovers the total incremental cost."⁸ We do not reiterate here the cost support for our metering fee already provided in this record.⁹

EFCA wrongly claims the Company double charges DG customers for certain costs. EFCA appears to be conflating the term "charge" which is a value on the customer's bill and cost which is an expense incurred by the Company for meter reading. The Company incurs a cost for reading each DG meter and this cost is recovered through the Company's DG metering fee charge as shown in line 12 of Attachment B of the Company's June 6, 2016 Reply Comments and in response to MPUC IR 3. Therefore, EFCA's assertion is incorrect.

CONCLUSION

We appreciate the opportunity to provide this Reply. We believe the facts demonstrate that monthly metering fees are permissible under federal and state law, including Minn. Stat. 216B.164. Furthermore, the fees have been approved by several long-standing Commission Orders. As a result, there is no basis for the Commission to order a refund to customers for these fees. In addition, we believe the facts

⁸ See Department of Commerce Comments, October 17, 2016, page 3.

⁹ See Attachment B of the Company's June 6, 2016 Reply Comments.

demonstrate that the current metering fees are reasonable based on the incremental costs of providing this service to customers who voluntarily enter into a net metering arrangement with the Company.

The Company appreciates this opportunity to provide comments and we look forward to further discussion about the future of QF metering fees.

Dated: November 10, 2016

Northern States Power Company

11/10/16

Docket No. E999/CI-15-755
Attachment A, Page 1 of 48



414 Nicollet Mall
Minneapolis, Minnesota 55401-1993

NON-PUBLIC DOCUMENT – CONTAINS
TRADE SECRET DATA

January 02, 2007

Dr. Burl Haar, Executive Secretary
Minnesota Public Utilities Commission
121 7th Place East, Suite 350
St. Paul, MN 55101-1247

RE: Annual Filing of Cogeneration and Small Power Production Tariffs

Dear Dr. Haar:

Pursuant to Minn. Rules 7835.0300 through 7835.1100, 7829.1300 and 7825.3200 (B), Northern States Power Company, a Minnesota corporation and wholly owned subsidiary of Xcel Energy Inc. (“Xcel Energy” or “the Company”) hereby files with the Minnesota Public Utilities Commission (“Commission” or “MPUC”) the original, six nonpublic and nine public copies of its annual cogeneration and small power production tariffs.

This filing is a miscellaneous tariff change under MPUC rules. Certain information provided in Schedules A, B and G of this filing are considered trade secret data as defined in Minnesota Statutes section 13.37 (1998). Release of this information would undermine the Company's resource bidding process by providing potential suppliers with a compilation of competitive information that derives independent economic value from not being generally known or ascertainable. This information includes data regarding costs of energy from possible new generating facilities that is not otherwise public. Disclosure of this information could result in higher costs of energy for Xcel Energy customers by allowing potential suppliers to modify their pricing from what they would otherwise bid. Therefore, Company has designated certain portion of this filing as trade secret. A summary of this filing was served on all parties on the general service list. An affidavit of service is attached.

Xcel Energy notes that the statutory changes to the Public Utility Regulatory Policy Act of 1978 ("PUPRA") contained in the Energy Policy Act of 2005 ("EPAAct 2005"),¹ the Federal Energy Regulatory Commission ("FERC") adoption of a Small Generation Interconnection Procedure and standard form Small Generation Interconnection Agreement in FERC Order No. 2006,² and recent FERC rules governing the mandatory purchase obligation under EPAAct 2005, may affect future development of QF's in Minnesota and either encourage or discourage cogeneration and small power production. Since FERC recently issued its final rule implement the EPAAct 2005 changes to PURPA,³ the ultimate impact is not known at this time. Xcel Energy also notes that in Docket No. E999/CI-06-159, the Minnesota Public Utilities Commission has examined the five standards the EPAAct required it to consider adopting and found that net metering, fuel source diversity and interconnection with on-site customer generators have already been considered and appropriately implemented.⁴

Please feel free to contact me at 330-6128 if you have any questions.

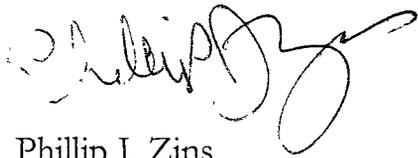
¹ Pub. L. No. 109-58, Sec. 1253, 119 Stat. 594 (2005).

² *Standardization of Small Generation Interconnection Agreements and Procedures*, Order No. 2006, 70 Fed. Reg. 34,189 (June 13, 2005); 111 FERC ¶ 61,220 (2005); *order on reh.*, Order No. 2006-A, 116 FERC ¶ 61, 046 (2006).

³ *New PURPA Section 210(m) Regulations Applicable to Small Power Production and Cogeneration Facilities*, Order No. 668, Docket No. RM06-10-000, (Oct. 20, 2006). FERC interpreted Section 210(m) to require elimination of utilities' QF purchase obligation in wholesale markets that meet specific criteria, including the Midwest ISO "Day 2" market. FERC established rebuttable presumptions regarding market access for QFs larger than 20 MW and smaller than 20 MW. To terminate a mandatory QF purchase obligation, a utility must file for FERC authorization. The new rules are effective 60 days after publication in the Federal Register.

⁴ *Order Taking Action Under Federal Energy Policy Act of 2005 and Soliciting Comments*, Docket No. E999/CI-06-159 (August 15, 2006).

Sincerely,

A handwritten signature in black ink, appearing to read "Phillip J. Zins". The signature is stylized with a large, looping flourish at the end.

Phillip J. Zins
Manager
Pricing and Planning

enclosure

NO-NPUBLIC DOCUMENT – CONTAINS TRADE SECRET DATA

STATE OF MINNESOTA
BEFORE THE
MINNESOTA PUBLIC UTILITIES COMMISSION

LeRoy Koppendrayer	Chair
Marshall Johnson	Commissioner
Kenneth Nickolai	Commissioner
Phyllis Reha	Commissioner
Thomas Pugh	Commissioner

In the Matter of the Petition of
Northern States Power
Company, a Minnesota
Corporation and wholly Owned
Subsidiary of Xcel Energy for
Approval of Cogeneration and
Small Power Production Rates

Docket No. _____

Petition of Northern States
Power Company 2007
Cogeneration and Small
Power Production Rates in
Compliance with Minnesota
Rules

INTRODUCTION

In compliance with Minnesota Statute Section 216B.164 and Minn. Rules 7835.0300 through 7835.1100, 7829.1300 and 7825.3200 (B), Northern States Power Company, a Minnesota corporation and wholly owned subsidiary of Xcel Energy Inc. (“Xcel Energy” or the “Company”) hereby submits to the Minnesota Public Utilities Commission (“MPUC” or the “Commission”) for this filing of Xcel Energy's 2007 cogeneration and small power production rates.

I. General Filing Information

Pursuant to Minn. Rules 7825.3200, 7825.3500 and 7829.1300, subp. 3, Xcel provides the following required information.

A. Name, Address and Telephone Number of the Utility

Northern States Power Company d/b/a Xcel Energy
414 Nicollet Mall

11/10/16

Docket No. E999/CI-15-755

Attachment A, Page 5 of 48

NONPUBLIC DOCUMENT – CONTAINS TRADE SECRET DATA

Minneapolis, MN 55401
(612) 330-5500

B. Name, Address and Telephone Number of Utility Attorney

James P. Johnson
Assistant General Counsel
Xcel Energy
800 Nicollet Mall, 2900
Minneapolis, MN 55402
(612) 215-4592

C. Date of Filing and Date Modified Rates Take Effect

The date of the filing is January 02, 2007. Xcel proposes that the miscellaneous rate changes become effective on January 1, 2007.

D. Statute Controlling Filing Processing Schedule

Minn. Stat. Section 216B.16, subd. 1 requires 60 days notice to the Commission of a proposed rate change, after which time the proposed rate change takes effect unless suspended. Under the Commission's rules, the proposed rate change discussed in this Petition falls within the definition of a "miscellaneous tariff filing" under either Minn. Rule 7825.3100, subp. 9 or Minn. Rule 7829.0100, subp. 11, since no determination of Xcel Energy's general revenue requirement is necessary. Under the Commission rules, comments on a miscellaneous filing are due within 30 days of its filing, with reply comments due 10 days thereafter (Minn. Rule 7829.1400, subparts 1 and 4.) This permits the Commission to act within the 60-day notice period.

E. Utility Employee Responsible for Filing

Phillip J. Zins
Manager, Pricing and Planning
Xcel Energy
414 Nicollet Mall

11/10/16

Docket No. E999/CI-15-755

Attachment A, Page 6 of 48

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Minneapolis, MN 55401
(612) 330-6128

II. Description and Purpose of Change in Rates Requested

The revised rates reflect the latest cost that Xcel Energy would incur if they were to internally provide this energy or capacity. The purpose is to insure that whenever Company buys energy or capacity from a Qualifying Facility, that the price will reflect Xcel Energy's true avoided cost.

III. Effect of Change Upon Xcel Revenue

Xcel Energy only receives customer charge revenue from these rates. Those charges in most cases will remain unchanged or be slightly higher in 2007, possibly increasing gross revenue by less than one hundred dollars. The majority of revenues that flow under these rates are demand and energy charges, and they flow from Xcel Energy to the customers. These latter revenues are pegged to Company's avoided cost, so theoretically, there should be no additional net revenue effect, because Xcel Energy would have incurred a similar expense if this capacity and energy had been procured internally.

IV. Substantiating Documents Supporting the Change

Pursuant to Minn. Rules 7835.0300 to 7835.1100, the following documents have been provided for Commission review:

Schedule A contains the estimated system average incremental energy costs by season, for daily on-peak hours, daily off-peak hours, and all hours in each season. It also contains incremental energy costs increased by a factor of 50 percent of the losses, and a summary description of the method used to determine the seasonal and diurnal periods.

Schedule B contains a description of all potential generating facility additions and all planned firm capacity purchases during the next ten years. Since the data is a compilation of competitively valuable information, Xcel Energy has designed Section 2 of Schedule B be treated as trade secret information pursuant to Minn. Stat. Section 13.37 and Minn. Rule 7829.0500. However, the Company had also included for public review a public version of its filing from which the trade secret information has been deleted. Sections 3 and 4,

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Schedule B, contain the Company's overall percentage losses for the seasonal on-peak and off-peak periods, and the Company's net annual avoided capacity cost stated in dollars per kilowatt-hour averaged over the on-peak hours and averaged over all hours.

Schedule C contains the "average retail utility energy rate" for each customer class and the calculations made to obtain these rates.

Schedule D is unchanged from the existing tariff pages and includes the "Uniform Statewide Contract for Cogeneration and Small Power Production Facilities" which applies to Qualified Facilities (QFs) of less than 40 kilowatts and Xcel Rules and Regulations applicable to QFs.

Schedule E is unchanged from last year's compliance filing and includes the Company's safety standards, required operating procedures for interconnected operations, and functions to be performed by control and protective apparatus.

Schedule F is unchanged from last year's compliance filing and includes a statement regarding procedures for notifying QFs of time periods when the Company would not purchase electric energy or capacity.

Schedule G contains Company computations made for determining Schedules A and B.

Exhibit 1 contains the Company's Cogeneration and Small Power Production rate sheets for 2007. These rate sheets reflect rate changes based on the latest avoided cost calculations.

Exhibit 2 contains a copy of the required customer notification.

Schedules A through G are those described in Minn. Rules 7835.0500 to 7835.1000. Schedule H, required by Minn. Rule 7835.1100, does not apply in this case since Xcel Energy is a generating utility.

The contents of the written notice which must be sent to all customers, and a listing of items included in the package of additional information, which will be sent to customers on request, are set forth in Exhibit 2. Exhibit 2 is a copy of the bill insert which the Commission approved in 1983 and which Xcel Energy has been sending to its customers each year to comply with the cogeneration rules. Customers will receive this written notice by means of a billing insert within 60 days after this filing.

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V. Modified Rates

Exhibit 1 contains proposed tariff Sheet 9-2, 10th Revision, Net Energy Billing Service; Sheet 9-3, 10th Revision, Purchase and Sales Billing Service; and Sheet 9-4, 10th Revision, Time of Day Purchase Service.

VI. Miscellaneous Information

A. Service List

Pursuant to Minn. Rule 7829.0700, Xcel requests that the following persons be placed on the Commission's official service list for this matter:

James P. Johnson
Assistant General Counsel
Xcel Energy
800 Nicollet Mall, 2900
Minneapolis, MN 55402

SaGonna Thompson
Records Specialist
Xcel Energy
414 Nicollet Mall
Minneapolis, MN 55401

B. Service to Other Parties

Pursuant to Minn. Rule 7829.1300, subp. 2, Xcel Energy has served a copy of this petition on the Department of Commerce and Residential Utilities Division of the Office of Attorney General. A summary of the filing prepared in accordance with Minn. Rule 7829.1300, subp. 1 was served on all parties on the general service list. A copy of the general service list for this filing was also served on each such party.

C. Summary of Filing

A one paragraph summary of this filing accompanies this Petition pursuant to Minn. Rule 7829.1300, subp. 1.

11/10/16

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CONCLUSION

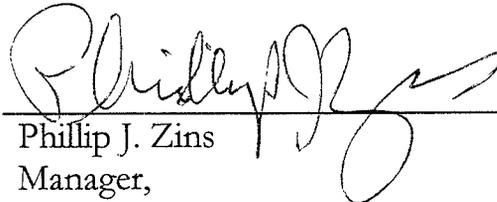
Xcel Energy respectfully requests that the Commission approve the Company's proposed tariff revision for cogeneration and small power production.

Dated: January 02, 2007

NORTHERN STATES POWER
COMPANY,

d/b/a XCEL ENERGY

By:



Phillip J. Zins
Manager,
Pricing and Planning

11/10/16

Docket No. E999/CI-15-755

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Schedule A

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Northern States Power Company, d/b/a Xcel Energy
Electric Operations - State of Minnesota
Cogeneration and Small Power Production Tariff Filing

NON-PUBLIC DOCUMENT – CONTAINS TRADE SECRET DATA

[Trade Secret Data Begins...

1. Estimated system average incremental energy costs (¢/KWh)

<u>Year</u>	<u>Summer On-Peak</u>	<u>Summer Off-Peak</u>	<u>Average Summer</u>	<u>Winter On-Peak</u>	<u>Winter Off-Peak</u>	<u>Average Winter</u>
2007	7.16	3.57	4.84	5.80	3.86	4.55
2008	7.04	3.81	4.96	6.50	3.92	4.85
2009	7.47	4.14	5.34	6.71	4.26	5.14
2010	7.69	4.14	5.42	6.29	4.29	5.01
2011	7.48	3.90	5.19	6.36	4.27	5.01

2. Estimated system average incremental energy costs adjusted by 50 percent of losses

<u>Year</u>	<u>Summer On-Peak</u>	<u>Summer Off-Peak</u>	<u>Average Summer</u>	<u>Winter On-Peak</u>	<u>Winter Off-Peak</u>	<u>Average Winter</u>
2007	7.45	3.68	5.00	6.02	3.98	4.70
2008	7.32	3.93	5.13	6.74	4.05	5.01
2009	7.76	4.27	5.52	6.95	4.40	5.31
2010	8.00	4.27	5.61	6.52	4.42	5.17
2011	7.77	4.03	5.37	6.60	4.40	5.18

... Trade Secret Data Ends]

3. Definitions of the seasons and on-peak and off-peak periods

Summer season: Those calendar months of June, July, August and September.

Winter season: Those calendar months of January, February, March, April, May, October, November and December.

On-peak period: All hours between 9 a.m. and 9 p.m., Monday through Friday, except the following holidays: New Year's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day. When a designated holiday occurs on Saturday, the preceding Friday will be designated a holiday. When a designated holiday occurs on Sunday, the following Monday will be designated a holiday.

Off-peak period: All other hours not included in the on-peak period. Definition of on-peak and off-peak period is subject to change with change in Company's system operating characteristics.

11/10/16

Docket No. E999/CI-15-755

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Schedule A

Northern States Power Company, d/b/a Xcel Energy
Electric Operations - State of Minnesota
Cogeneration and Small Power Production Tariff Filing

Page 2 of 2

The Company instituted summer/winter pricing in 1974 in response to our growing summer peak. The Company utilizes seasonal rates as a price signal to the customer to reflect the higher power supply costs associated with meeting high summer demands.

The maximum peak for the NSP system is established partially as a result of weather-sensitive load and correlates with extended periods of hot, humid weather. The June through September period was established as the summer season by reviewing the distribution of cooling degree days, a measurement of cooling requirements. The existing seasonal period provides the best correlation to reflect the heating and cooling requirements.

The Company supported their seasonal definitions in April 1978 in its "Application of Northern States Power Company for Rehearing and Reconsideration" in Docket No. E-002/GR-77-611 and again in July 1980 in the Prepared Supplemental Testimony of Elizabeth E. Dupay in Docket No. E-002/GR-80-316.

Analysis of system load data and system lambdas provided the primary basis for the definition of the on-peak and off-peak periods. Hourly system load data was analyzed for the years 1975 to 1979. Hourly system lambdas were examined for the years 1977 to 1979.

In defining the on-peak and off-peak periods, it was important that the periods be defined with care so that new peaks are not created just outside of the on-peak period due to load shifting. This is particularly critical at the end of the on-peak period where the deferred loads would begin to come back on line; i.e., recharging of depleted water heaters, storage space heating, etc.

If the on-peak period were defined to contain a wider band of hours, new peripheral peaks would be less likely to occur, but customers would be more restricted in their ability to alter their usage patterns on a cost-effective basis.

Defining the on-peak period to be the non-holiday weekday hours of 9 a.m. to 9 p.m. captures the recorded daily peaks, the hours of elevated system demands and the hours of highest system cost giving consumers information concerning the daily 12-hour on-peak period.

A detailed description of the method used to determine on-peak and off-peak periods was submitted to Docket No. E-002/GR-80-316 as Schedule 6 of Exhibit 48 (DLP-1).

11/10/16

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Schedule A

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Northern States Power Company, d/b/a Xcel Energy
Electric Operations - State of Minnesota
Cogeneration and Small Power Production Tariff Filing

The Company instituted summer/winter pricing in 1974 in response to our growing summer peak. The Company utilizes seasonal rates as a price signal to the customer to reflect the higher power supply costs associated with meeting high summer demands.

The maximum peak for the NSP system is established partially as a result of weather-sensitive load and correlates with extended periods of hot, humid weather. The June through September period was established as the summer season by reviewing the distribution of cooling degree days, a measurement of cooling requirements. The existing seasonal period provides the best correlation to reflect the heating and cooling requirements.

The Company supported their seasonal definitions in April 1978 in its "Application of Northern States Power Company for Rehearing and Reconsideration" in Docket No. E-002/GR-77-611 and again in July 1980 in the Prepared Supplemental Testimony of Elizabeth E. Dupay in Docket No. E-002/GR-80-316.

Analysis of system load data and system lambdas provided the primary basis for the definition of the on-peak and off-peak periods. Hourly system load data was analyzed for the years 1975 to 1979. Hourly system lambdas were examined for the years 1977 to 1979.

In defining the on-peak and off-peak periods, it was important that the periods be defined with care so that new peaks are not created just outside of the on-peak period due to load shifting. This is particularly critical at the end of the on-peak period where the deferred loads would begin to come back on line; i.e., recharging of depleted water heaters, storage space heating, etc.

If the on-peak period were defined to contain a wider band of hours, new peripheral peaks would be less likely to occur, but customers would be more restricted in their ability to alter their usage patterns on a cost-effective basis.

Defining the on-peak period to be the non-holiday weekday hours of 9 a.m. to 9 p.m. captures the recorded daily peaks, the hours of elevated system demands and the hours of highest system cost giving consumers information concerning the daily 12-hour on-peak period.

A detailed description of the method used to determine on-peak and off-peak periods was submitted to Docket No. E-002/GR-80-316 as Schedule 6 of Exhibit 48 (DLP-1).

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1. 7835.0600 SCHEDULE B Subp. 2

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Possible planned utility generating facility additions anticipated during the next ten years (2007-2016).

A. Name of Unit	King	High Bridge	Riverside
B. Nameplate Rating	571 MW ^a	515 MW ^b	439 MW ^c
C. Fuel Type	Coal	Gas	Gas
D. In-Service Date	May 2007	May 2008	May 2009
E. Completed Cost	\$677/kW	\$698/kW	\$291/kW
F. Anticipated Fixed O&M ^d	\$56.27/kW	\$9.63/kW	\$11.48/kW
G. Energy Cost ^d	\$12.55/MWh	\$47.01/MWh	\$41.50/MWh
H. Projected Average Generation ^d	3,698,500MWh	942,000 MWh	536,000 MWh
I. Average Annual Fuel Savings	NA	NA	NA

^a Emission control equipment upgrade, boiler rehabilitation and life extension of plant, total capacity will not change.

^b Net increase of 244 MW.

^c Net increase of 53 MW.

^d First year estimates.

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1. 7835.0600 SCHEDULE B Subp. 2

Possible planned utility generating facility additions anticipated during the next ten years (2007-2016). (Continued)

A. Name of Unit	Peaking Unit	Peaking Unit	Peaking Unit	Peaking Unit	Intermediate Unit	Intermediate Unit
B. Nameplate Rating	160 MW	160 MW	160 MW	160 MW	250 MW	250 MW
C. Fuel Type	Gas	Gas	Gas	Gas	Gas	Gas
D. In-Service Date	June 2010	June 2011	June 2013	June 2014	June 2015	June 2016
E. Completed Cost	\$485.60/kw	\$495.99/kw	\$517.45/kw	\$528.52/kw	\$699.94/kw	\$714.91/kw
F. Anticipated Fixed OM ^a	\$21.53/kW	\$21.89/kW	\$22.64/kW	\$23.06/kW	\$23.66/kW	\$24.24/kW
G. Energy Cost ^a	\$65.27/MWh	\$62.97/MWh	\$67.80/MWh	\$69.18/MWh	\$50.27/MWh	\$53.71/MWh
H. Projected Average Generation ^a	160,500 MWh	150,100 MWh	158,500 MWh	152,900 MWh	804,200 MWh	831,900 MWh
I. Average Annual Fuel Savings	NA	NA	NA	NA	NA	NA

^a First year estimates.

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NON-PUBLIC DOCUMENT – CONTAINS TRADE SECRET DATA

2. Subp. 3 Planned firm capacity purchases during the next 10 years (2007-2016)

[Trade Secret Data Begins...

A. Year of purchase	1984-2017	1986-2021	1987-2019	1987-2033	1988-2021	1986-2021
B. Name of seller	Rapidan	Lac Courte Orielles (Chippewa)	Neshkoro Power Assoc (Neshonoc)	Hastings	Byllesby (Neshkoro Power Assoc)	St. Cloud
C. Capacity to be purchased	2.8 MW	3.1 MW	0.4 MW	3.3 MW	1.78 MW	8.1 MW
D. Capacity cost	\$144kW/yr	--	\$193kW/yr	\$213kW/yr	\$212kW/yr	\$213kW/yr
E. Energy cost	1.4¢/kWh^a	4.12¢/kWh	2.4¢/kWh	1.33¢/kWh^a	2.07¢/kWh	1.33¢/kWh^a
A. Year of purchase	1990-2017	1991-2011	2005-2015	1998-2015	1993-2020	
B. Name of seller	HERC	Cyprus Silver	MHEB	Minnkota Power Company	Wind Partners 1993	
C. Capacity to be purchased	33.7 MW	40 MW	500 MW	100 MW ^a (sum season)	25 MW	
D. Capacity cost	\$245kW/yr	\$168/kW/yr	\$62/kW/yr	\$106/kW/yr	--	
E. Energy cost	1.33¢/kWh^a	1.71¢/kWh	3.25¢/kWh	1.27¢/kWh	5.43¢/kWh	

^aBased on average Sherco Energy Cost

... Trade Secret Data Ends]

Northern States Power Company d/b/a Xcel Energy
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NON-PUBLIC DOCUMENT – CONTAINS TRADE SECRET DATA

2. Subp. 3 Planned firm capacity purchases during the next 10 years (2007-2016) (Continued)

[Trade Secret Data Begins ...

A. Year of purchase	1994-2024	1995-2024	1996-2026	1995-2027	1998-2028	1999-2029
B. Name of seller	Minn Methane	Land Fill Power Flying Cloud	Land Fill Power Pine Bend	LS Power	Lake Benton Power Partners (Phase II)	Lakota Ridge
C. Capacity to be purchased	3.1 MW	0 MW	12 MW	245 MW	107.25 MW	11.25 MW
D. Capacity cost	\$144/kW/yr	b	\$188/kW/yr	\$139/kW/yr	--	--
E. Energy cost	1.33¢/kWh^a		1.33¢/kWh^a	7.16¢/kWh	2.62¢/kWh	5.17¢/kWh
A. Year of purchase	1999-2027	1999-2023	1999-2024	2003-2023	2003-2018	2007-2022
B. Name of seller	NAE Shaokatan	Woodstock Wind Farm LLC	Lake Benton II (Phase III)	Chanarambie Power Partners LLC	Moraine Wind	MinnDakota Wind
C. Capacity to be purchased	11.88 MW	10.5 MW	103.5 MW	85.5 MW	51 MW	150 MW
D. Capacity cost	--	--	--	--	--	-
E. Energy cost	5.17¢/kWh^c	4.81¢/kWh^c	2.79¢/kWh^c	2.52¢/ kWh	2.98¢/ kWh	3.90¢/ kWh

... Trade Secret Data Ends]

^a Based on average Sherco Energy Cost

^b Land Fill Power Flying Cloud is currently not operating

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NON-PUBLIC DOCUMENT – CONTAINS TRADE SECRET DATA

2. Subp. 3 Planned firm capacity purchases during the next 10 years (2007-2016) (Continued)

[Trade Secret Data Begins ...

A. Year of purchase	1994-2024	1995-2024	1996-2026	1995-2027	1998-2028	1999-2029
B. Name of seller	Minn Methane	Land Fill Power Flying Cloud	Land Fill Power Pine Bend	LS Power	Lake Benton Power Partners (Phase II)	Lakota Ridge
C. Capacity to be purchased	3.1 MW	0 MW	12 MW	245 MW	107.25 MW	11.25 MW
D. Capacity cost	\$144/kW/yr	<i>b</i>	\$188/kW/yr	\$139/kW/yr	--	--
E. Energy cost	1.33¢/kWh^a		1.33¢/kWh^a	7.16¢/kWh	2.62¢/kWh	5.17¢/kWh

A. Year of purchase	1999-2027	1999-2023	1999-2024	2003-2023	2003-2018	2007-2022
B. Name of seller	NAE Shaokatan	Woodstock Wind Farm LLC	Lake Benton II (Phase III)	Chanarambie Power Partners LLC	Moraine Wind	MinnDakota Wind
C. Capacity to be purchased	11.88 MW	10.5 MW	103.5 MW	85.5 MW	51 MW	150 MW
D. Capacity cost	--	--	--	--	--	-
E. Energy cost	5.17¢/kWh^c	4.81¢/kWh^c	2.79¢/kWh^c	2.52¢/ kWh	2.98¢/ kWh	3.90¢/ kWh

... Trade Secret Data Ends]

^a Based on average Sherco Energy Cost

^b Land Fill Power Flying Cloud is currently not operating

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NON-PUBLIC DOCUMENT – CONTAINS TRADE SECRET DATA

2. Subp. 3 Planned firm capacity purchases during the next 10 years (2007-2016) (Continued)

[Trade Secret Data Begins...

A.	Year of purchase	2003-2022	2006-2028	2006-2027	2005-2025
B.	Name of seller	Trigen/Cinergy (St.Paul Cogen)	FibroMinn	NGPP Minnesota Biomass (fka EPS/Beck)	Velva Windfarm
C.	Capacity to be purchased	25 MW	50 MW	50 MW	12 MW
D.	Capacity cost	--	--	--	--
E.	Energy cost	13.42¢/kWh	7.5¢/kWh	10.2¢/ kWh	3.30¢/kWh
<hr/>					
A.	Year of purchase	2008-2025	2006-2026	2007-2022	2007-2026
B.	Name of seller	Invenergy Cannon Falls LLC	Mankato Energy Center, LLC	Central Minnesota Ethanol Cooperative	Grant County Wind LLC
C.	Capacity to be purchased	357 MW	265 MW	1.1 MW	20 MW
D.	Capacity cost	\$61/kW/yr	\$85/kW/yr	--	--
E.	Energy cost	0.150¢/kWh^a	.473¢/ kWh^a	4.7¢/ kWh^a	4.90¢/KWh

2007 Rates. Note that small wind contracts (under 2 MW) were not included in this filing. Note that this includes only signed contracts and not those awaiting regulatory approval or under negotiations.

^aTolling facility. Energy costs disclosed do not include cost of fuel burned.

... Trade Secret Data Ends]

Northern States Power Company d/b/a Xcel Energy
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NON-PUBLIC DOCUMENT – CONTAINS TRADE SECRET DATA

2. Subp. 3 Planned firm capacity purchases during the next 10 years (2007-2016) (Continued)

[Trade Secret Data Begins...

A. Year of purchase	2007-2026	2007-2026	2007-2026	2007-2026
B. Name of seller	Herman Wind LLC	West Stevens Wind LLC	Jeffers Wind 20 LLC	Cisco Energy Transmission LLC
C. Capacity to be purchased	20 MW	20 MW	50 MW	8 MW
D. Capacity cost	--	--	--	--
E. Energy cost	<i>4.90¢/ kWh</i>	<i>4.90¢/ kWh</i>	<i>3.60¢/ kWh</i>	<i>4.90¢/ kWh</i>

A. Year of purchase	2007-2026	2007-2026
B. Name of seller	Ewington Energy Systems LLC	Kenyon Wind, LLC
C. Capacity to be purchased	8 MW	18.9 MW
D. Capacity cost	<i>4.4¢/ kWh</i>	<i>4.90¢/ kWh</i>
E. Energy cost		

2006 Rates. Note that small wind contracts (under 2 MW) were not included in this filing. Note that this includes only signed contracts and not those awaiting regulatory approval or under negotiations.

*Tolling facility. Energy costs disclosed do not include cost of fuel burned.

... Trade Secret Data Ends]

Northern States Power Company d/b/a Xcel Energy
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3. Subp. 4 Overall average percentage of losses due to the distribution, transmission, and transformation of electric energy.

	<u>Summer On-Peak</u>	<u>Summer Off-Peak</u>	<u>Average Summer</u>	<u>Winter On-Peak</u>	<u>Winter Off-Peak</u>	<u>Average Winter</u>	<u>Annual</u>
Loss factors	0.9240	0.9374	0.9327	0.9288	0.9388	0.9359	0.9348

4. Subp. 5 & 6 Net annual avoided capacity costs (¢/kWh) for calculation see Schedule G, Page 3 of 3.

	<u>Winter</u>	<u>Summer</u>	<u>Annual</u>
Averaged over on-peak hours	0.95	4.97	2.28
Averaged over all hours	0.33	1.71	0.79

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Schedule C
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SCHEDULE C

AVERAGE RETAIL UTILITY ENERGY RATES (CENTS/KWH)

Class	Rate Code	Annual	Winter	Summer
Residential	A01_S, A03_S	8.31	7.77	9.13
Small General	A01NS	8.48	7.87	9.56
Non-Demand Metered		8.33	7.78	9.17
Demand Metered	A14NS	4.47	4.24	4.85

CALCULATION OF AVERAGE UTILITY ENERGY RATES

Average retail utility energy rate in cent/kWh for each class is computed based on the 12-month ending November 2006 revenue from sales of electricity excluding city fees, revenue resulting from customer charges (net of Load Management and Low-Income Discount credits for Residential), and demand charges divided by annual class sales.

ANNUAL		Revenue Net Fixed Charges	Average Utility Retail Rate
Class	KWH Sales		
(1)	(2)	(3)	(4) (3)/(2)*100
Residential	8,860,535,385	\$736,363,053	8.31
Small General	966,130,004	\$81,957,747	8.48
Non-Demand Metered	9,826,665,389	\$818,320,800	8.33
General Service (Sec.)	3,918,327,988	\$175,193,915	4.47
Demand Metered	3,918,327,988	\$175,193,915	4.47

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WINTER (OCT-MAY)			
Class	KWH Sales	Revenue Net Fixed Charges	Average Utility Retail Rate
<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u> <u>(3)/(2)*100</u>
Residential	5,349,004,166	\$415,761,811	7.77
Small General	615,642,941	\$48,448,800	7.87
<u>Non-Demand Metered</u>	<u>5,964,647,107</u>	<u>\$464,210,611</u>	<u>7.78</u>
General Service (Sec.)	2,426,294,113	\$102,816,668	4.24
<u>Demand Metered</u>	<u>2,426,294,113</u>	<u>\$102,816,668</u>	<u>4.24</u>
SUMMER (MAY-SEP)			
Class	KWH Sales	Revenue Net Fixed Charges	Average Utility Retail Rate
<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u> <u>(3)/(2)*100</u>
Residential	3,511,531,219	\$320,601,242	9.13
Small General	350,487,063	\$33,508,947	9.56
<u>Non-Demand Metered</u>	<u>3,862,018,282</u>	<u>\$354,110,189</u>	<u>9.17</u>
General Service (Sec.)	1,492,033,875	\$72,377,246	4.85
<u>Demand Metered</u>	<u>1,492,033,875</u>	<u>\$72,377,246</u>	<u>4.85</u>

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Northern States Power Company, d/b/a Xcel Energy
State of Minnesota
Cogeneration and Small Power Production Tariff Filing

Docket No. E999/CI-15-755

Attachment A, Page 23 of 48
Schedule D

Page 1 of 6

UNIFORM STATEWIDE CONTRACT AND XCEL ENERGY'S RULES AND
REGULATIONS FOR COGENERATION AND SMALL POWER PRODUCTION
FACILITIES

NO LONGER TREATED AS TRADE SECRET DATA

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Attachment A, Page 24 of 48

UNIFORM STATEWIDE CONTRACT FOR COGENERATION AND SMALL POWER PRODUCTION FACILITIES

THIS CONTRACT is entered into _____, 19____, by _____ Northern States Power Company (hereafter called "Utility") and _____ (hereafter called "QF").

RECITALS

The QF has installed electric generating facilities, consisting of _____ (Description of facilities), rated at less than 40 kilowatts of electricity, on property located at _____.

The QF is prepared to generate electricity in parallel with the Utility. The QF's electric generating facilities meet the requirements of the Minnesota Public Utilities Commission (hereafter called "Commission") rules on Cogeneration and Small Power Production and any technical standards for interconnection the Utility has established that are authorized by those rules.

The Utility is obligated under federal and Minnesota law to interconnect with the QF and to purchase electricity offered for sale by the QF.

A contract between the QF and the Utility is required by the Commission's rules.

AGREEMENTS

The QF and the Utility agree:

1. The Utility will sell electricity to the QF under the rate schedule in force for the class of customer to which the QF belongs.
2. The Utility will buy electricity from the QF under the current rate schedule filed with the Commission. The QF has elected the rate schedule category hereinafter indicated (select one):

- _____ a. Net energy billing rate under part 7835.3300.
- _____ b. Simultaneous purchase and sale billing rate under part 7835.3400.
- _____ c. Time-of-day purchase rates under part 7835.3500.

A copy of the presently filed rate schedule is attached to this contract.

3. The rates for sales and purchases of electricity may change over the time this contract is in force, due to actions of the Utility or of the Commission, and the QF and the Utility agree that sales and purchases will be made under the rates in effect each month during the time this contract is in force.

4. The Utility will compute the charges and payments for purchases and sales for each billing period. Any net credit to the QF will be made under one of the following options as chosen by the QF.

- _____ 1. Credit to the QF's account with the Utility.
- _____ 2. Paid by check to the QF within 15 days of the billing date.

5. The QF must operate its electric generating facilities within any rules, regulations, and policies adopted by the Utility not prohibited by the Commission's rules on Cogeneration and Small Power Production which provide reasonable technical connection and operating specifications for the QF (Northern States Power Company's Rules And Regulations Applicable To Cogeneration And Small Power Production Facilities are attached). This agreement does not waive the QF's right to bring a dispute before the Commission as authorized by Minnesota Rules, parts 7835.4800, 7835.5800, and 7835.4500, and any other provision of the Commission's rules on Cogeneration and Small Power Production authorizing Commission resolution of a dispute.

6. The Utility's rules, regulations, and policies must conform to the Commission's rules on Cogeneration and Small Power Production.

7. The QF will operate its electric generating facilities so that they conform to the national, state, and local electric and safety codes, and will be responsible for the costs of conformance.

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8. The QF is responsible for the actual, reasonable costs of interconnection which are estimated to be \$ _____. The QF will pay the Utility in this way: _____

9. The QF will give the Utility reasonable access to its property and electric generating facilities if the configuration of those facilities does not permit disconnection or testing from the Utility's side of the interconnection. If the Utility enters the QF's property, the Utility will remain responsible for its personnel.

10. The Utility may stop providing electricity to the QF during a system emergency. The Utility will not discriminate against the QF when it stops providing electricity or when it resumes providing electricity.

11. The Utility may stop purchasing electricity from the QF when necessary for the Utility to construct, install, maintain, repair, replace, remove, investigate, or inspect any equipment or facilities within its electric system. The Utility will notify the QF before it stops purchasing electricity in this way: _____

12. The QF will keep in force liability insurance against personal or property damage due to the installation, interconnection, and operation of its electric generating facilities. The amount of insurance coverage will be \$ _____ (the Utility may not require an amount greater than \$300,000)

13. This contract becomes effective as soon as it is signed by the QF and the Utility. This contract will remain in force until either the QF or the Utility gives written notice to the other that the contract is canceled. This contract will be canceled 30 days after notice is given.

14. This contract contains all the agreements made between the QF and the Utility except that this contract shall at all times be subject to all rules and orders issued by the Public Utilities Commission or other government agency having jurisdiction over the subject matter of this contract. The QF and the Utility are not responsible for any agreements other than those stated in this contract.

THE QF AND THE UTILITY HAVE READ THIS CONTRACT AND AGREE TO BE BOUND BY ITS TERMS. AS EVIDENCE OF THEIR AGREEMENT, THEY HAVE EACH SIGNED THIS CONTRACT BELOW ON THE DATE WRITTEN AT THE BEGINNING OF THIS CONTRACT.

QF

By: _____

NORTHERN STATES POWER COMPANY

By: _____

(Title)



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Schedule D

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Northern States Power Company, d/b/a Xcel Energy
State of Minnesota

Rules and Regulations Applicable to Cogeneration and Small Power Production Facilities

FACILITY LOCATION AND COMPLIANCE. Customer agrees to locate the qualifying facility (QF) so as to not cause a hazard to the Xcel Energy distribution system. Wind generators may only be installed at Xcel Energy-approved locations that preclude any possibility of the generation system contracting any Xcel Energy facilities if the system accidentally topples over. The total tower height, including the propeller when in the highest position, must be used in the determination. Customer agrees that the installation shall be in compliance with all applicable electric codes and the QF will be operated only after the installation has been inspected and approved by the appropriate authorities. Customer understands and agrees that Company approval of the proposed or installed QF does not preclude the necessity of customer obtaining all required permits, building and zoning variations, and applicable inspections.

CONNECTION. Xcel Energy agrees to permit customer to connect the proposed qualifying facility (QF) to the Xcel Energy distribution system on the load side of customer's meter.

DISTRIBUTION SYSTEM ADEQUACY. The proposed qualifying facility (QF) installation will be reviewed by Xcel Energy to determine adequacy of the associated Xcel Energy distribution system components. The customer agrees to reimburse Xcel Energy for the addition, modification, or replacement of any distribution system components made necessary by customer's QF installation.

INTERFERENCE. Customer agrees to disconnect the qualifying facility (QF) from the Xcel Energy distribution system or to reimburse Xcel Energy for cost of necessary system modifications if operation of the QF causes radio, television, or electrical service interference to other customers or interference with the operation of Xcel Energy's system.

SPECIAL METERING. Customer agrees to allow Xcel Energy at Xcel Energy's expense to install necessary special metering and measuring equipment at the above address to provide information on the effect of the qualifying facility.

PROVISION TO SELECT METERING. (CUSTOMER TO CHOOSE ONE OF THE FOLLOWING)

- (a) **DETENTING OF METER FOR PARALLEL WITH NO SALE TO COMPANY.** Because customer does not intend to sell energy to Company, the billing of customer's electric consumption provided by Xcel Energy will be on the available retail rates and the electric meter measuring this consumption will, at this time, be detented to allow measurement only of energy flow into the customer's premises. Customer will provide all meter socket replacement and rewiring required to accommodate a detented meter.
- (b) **METERING FOR PARALLEL OPERATION WITH SALE OR WHEELAGE OF EXCESS OR ALL OR A PART OF CUSTOMER-PRODUCED ENERGY.** Two meters will be installed in series. One meter will record energy delivered by Company. The second

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Northern States Power Company, d/b/a Xcel Energy
State of Minnesota

meter will record energy delivered by customer. Customer will provide all meter socket replacement and rewiring required to install these meters.

REVENUE LOSS. Company shall not be liable for revenue lost by customer due to Company's inability to purchase or wheel customer-generated energy for any reason not within Company's reasonable control.

LIGHTNING PROTECTION. Customer agrees to effectively ground the qualifying facility installation and to provide and install adequate surge arrester protection to prevent lightning damage to any Xcel Energy distribution system equipment.

BACKFEED PREVENTION. Customer agrees to supply Xcel Energy a schematic diagram and associated equipment list for the qualifying facility (QF) control circuitry to enable Xcel Energy to determine if the QF safety equipment provides a level of safety consistent with the safety level required by Xcel Energy in its electrical equipment. If further analysis of the proposed QF by Xcel Energy reveals that it is capable of backfeed into the Xcel Energy lines during distribution outages, customer shall immediately disconnect the QF from Xcel Energy distribution system and shall only reconnect the QF through a customer-provided, Xcel Energy-approved, interconnect device that will prevent backfeed.

ADDITIONAL SAFETY DEVICES. Customer understands and agrees that as additional qualifying facilities are connected to the Xcel Energy distribution system, Xcel Energy may require customer to install additional safety devices at customer expense.

KIND OF CUSTOMER SERVICE SUPPLIED TO COMPANY. Customer agrees to supply, and Company agrees to accept, electric service in the form of ___ phase, ___ wire, alternating current at a nominal frequency of 60 hertz, and at a nominal voltage of ___ located at

PARALLEL OPERATION. Customer shall provide the necessary equipment as approved by Xcel Energy to operate the qualifying facility (QF) in parallel with Xcel Energy's distribution system. The QF shall be equipped to instantaneously discontinue all output to and energization of Xcel Energy's distribution system under the following conditions:

- A. De-energized Xcel Energy system
- B. Sustained line faults on Xcel Energy system
- C. Faults on customer's system

Customer shall consult with Xcel Energy regarding these minimum requirements, additional protection recommended, and proper operation of customer's generating system.

INSURANCE. The customer shall maintain during the term of this agreement liability insurance which insures customer against all claims for property damage and for personal injury or death arising out of, resulting from, or in any manner connected with the installation, operation, and

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maintenance of the qualifying facility. The amount of such insurance coverage shall be at least \$300,000 per occurrence. Customer shall furnish a certificate from its insurance carrier showing that it has complied with the provisions of this section and providing that the insurance policy will not be changed or cancelled during its term without written, 90-day notice to Xcel Energy.

SPECIAL LOSS FACTOR ADJUSTMENT. If the small qualifying facility is located at a site outside Company service territory and energy is delivered to Company through facilities owned by another utility, energy payments will be adjusted downward reflecting losses occurring between point of generation and point of receipt by Company.

SPECIAL INTERCONNECTION FACILITIES. The metering charge assumes common use of all company facilities, up to the metering point, for both receipt and delivery of energy. Any additional facilities required by Company to accommodate the small qualifying facility (SQF) will require SQF to pay a net interconnection charge in advance.

METERING REQUIREMENTS. The SQF shall make provision for on-site metering. All energy delivered and sold to Company shall be separately metered. On-site use of SQF output shall be unmetered for purposes of compensation. SQF shall cooperate with and allow Company to install and have access to on-site monitoring equipment for purposes of gathering SQF performance data.

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Schedule E

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Northern States Power Company, d/b/a Xcel Energy
State of Minnesota
Cogeneration and Small Power Production Tariff Filing

The safety standards, required operating procedures for interconnected operations, and the functions to be performed by any control and protective apparatus follow:

SAFETY STANDARDS

1. Customer agrees to locate the qualifying facility so as to not cause a hazard to the Xcel Energy distribution system. Wind generators may only be installed at Xcel Energy-approved locations that preclude any possibility of the generation system contacting any Xcel Energy facilities if the system accidentally topples over. The total tower height, including the propeller when in the highest position, must be used in the determination.
2. The connection of the qualifying facility (QF) to the Xcel Energy distribution system must be made through a customer-provided, customer-installed, manual safety disconnect switch of adequate ampere capacity. The switch shall not open the neutral when the switch is open and must provide a visible disconnect. This switch shall have provisions for being padlocked in the open position with a standard Xcel Energy padlock. Customer agrees to locate the switch in a position accessible to Xcel Energy personnel, and further agrees the switch may be operated by Xcel Energy personnel at all times that such operation is deemed necessary by Xcel Energy for safety and operating reasons. QF's using line-commutated synchronous inverters shall have the inverters connected on the load side (QF side) of the safety disconnect switch.
3. Customer agrees to supply Xcel Energy a schematic diagram and associated equipment list for the qualifying facility (QF) control circuitry to enable Xcel Energy to determine if the QF's safety equipment provides a level of safety consistent with the safety level required by Xcel Energy in its electric equipment. If further analysis of the proposed QF by Xcel Energy reveals that it is capable of backfeed into the Xcel Energy lines during distribution outages, customer shall immediately disconnect the QF from Xcel Energy distribution system and shall only reconnect the QF through a customer-provided, Xcel Energy-approved, interconnect device that will prevent said backfeed.
4. Customer understands and agrees that as additional qualifying facilities are connected to the Xcel Energy distribution system, Xcel Energy may require customer to install further additional safety devices at customer expense.

11/10/16

Docket No. E999/CI-15-755

Attachment A, Page 30 of 48

Schedule E

Page 2 of 2

Northern States Power Company, d/b/a Xcel Energy
State of Minnesota
Cogeneration and Small Power Production Tariff Filing

OPERATING PROCEDURES

1. Customer agrees to disconnect the qualifying facility (QF) from the Xcel Energy distribution system or to reimburse Xcel Energy for cost of necessary system modifications if operation of the QF causes radio, television, or electrical service interference to other customer or interference with the operation of Xcel Energy's system.
2. Since the power factor and the voltage at which Company's system and customer's system are operated will vary, each party agrees to operate his system at a power factor as near unity as possible in such manner as to absorb his share of the reactive power, and voltage as conducive to the best operating standards.

FUNCTIONS OF REQUIRED CONTROL & PROTECTIVE EQUIPMENT

1. Customer shall provide the necessary equipment as approved by Xcel Energy to operate the qualifying facility (QF) in parallel with Xcel Energy's distribution system. The QF shall be equipped to instantaneously discontinue all output to and energization of Xcel Energy's distribution system under the following conditions:
 - A. De-energized Xcel Energy system
 - B. Sustained line faults on Xcel Energy system
 - C. Faults on customer's system
2. Customer agrees to effectively ground the qualifying facility installation and to provide and install adequate surge arrester protection to prevent lightning damage to any Xcel Energy distribution system equipment.
3. Customer shall consult with Xcel Energy regarding these minimum requirements, additional protection recommended, and proper operation of customer's generating system.

**RELEASED AS A PUBLIC DOCUMENT:
NO LONGER TREATED AS TRADE SECRET DATA**

11/10/16

Docket No. E999/CI-15-755

Attachment A, Page 31 of 48
Schedule F

Page 1 of 1

Northern States Power Company, d/b/a Xcel Energy
State of Minnesota
Cogeneration and Small Power Production Tariff Filing

At this time, the Company has no plans to interrupt the purchase of electric energy or capacity from qualifying facilities because of extraordinary operational circumstances which would make the costs of purchases during those periods greater than the costs of internal generation. Therefore, no procedures exist for notifying qualifying facilities of such interruptions.

11/10/16

Northern States Power Company d/b/a Xcel Energy
Electric Operations - State of Minnesota
Cogeneration and Small Power Production Tariff Filing

Schedule G
Page 1 of 3

NON-PUBLIC DOCUMENT - CONTAINS TRADE SECRET DATA

I. COMPUTATION USED IN SCHEDULE A

Table 1

Adjusting System Average Incremental Energy Cost
by Loss Factors Representing 50% of Losses
[TRADE SECRET DATA BEGINS...

	Year	Unadjusted Cents/kWh (Column A)	Loss Factor ¹ (Column B)	Adjusted ¢/kWh ² (Column C)
Summer On-Peak	2007	7.16	0.9620	7.45
	2008	7.04	0.9620	7.32
	2009	7.47	0.9620	7.76
	2010	7.69	0.9620	8.00
	2011	7.48	0.9620	7.77
Summer Off-Peak	2007	3.57	0.9687	3.68
	2008	3.81	0.9687	3.93
	2009	4.14	0.9687	4.27
	2010	4.14	0.9687	4.27
	2011	3.90	0.9687	4.03
Average Summer	2007	4.84	0.9664	5.00
	2008	4.96	0.9664	5.13
	2009	5.34	0.9664	5.52
	2010	5.42	0.9664	5.61
	2011	5.19	0.9664	5.37
Winter On-Peak	2007	5.80	0.9644	6.02
	2008	6.50	0.9644	6.74
	2009	6.71	0.9644	6.95
	2010	6.29	0.9644	6.52
	2011	6.36	0.9644	6.60
Winter Off-Peak	2007	3.86	0.9694	3.98
	2008	3.92	0.9694	4.05
	2009	4.26	0.9694	4.40
	2010	4.29	0.9694	4.42
	2011	4.27	0.9694	4.40
Average Winter	2007	4.55	0.9680	4.70
	2008	4.85	0.9680	5.01
	2009	5.14	0.9680	5.31
	2010	5.01	0.9680	5.17
	2011	5.01	0.9680	5.18

Notes:

1 Loss factor development shown in Table 2

2 Column C = Column A/Column B

... TRADE SECRET DATA ENDS]

11/10/16

Northern States Power Company d/b/a Xcel Energy
Electric Operations - State of Minnesota
Cogeneration and Small Power Production Tariff Filing

Schedule G
Page 2 of 3

I. COMPUTATION USED IN SCHEDULE A (Continued)

Table 2

Overall Average Percentage of Losses Due to the Distribution,
Transmission, and Transformation of Electric Energy

	Summer On-Peak	Summer Off-Peak	Average Summer	Winter On-Peak	Winter Off-Peak	Average Winter	Annual
Overall Loss Factors	0.9240	0.9374	0.9327	0.9288	0.9388	0.9359	0.9348
Loss Factors Repres. 50% of overall Loss Factors	0.9620	0.9687	0.9664	0.9644	0.9694	0.9680	0.9674

11/10/16

Northern States Power Company d/b/a Xcel Energy
State of Minnesota
Cogeneration and Small Power Production Tariff Filing

Schedule G
Page 3 of 3

II. COMPUTATION USED IN SCHEDULE B

Calculation of Net Annual Avoided Capacity Costs

(1) Completed Cost of C.T Unit (2007 \$)	\$464 /kW
(2) Inflation Net of Technical Progress	2.04%
(3) Average Service Life	30 Years
(4) Discount Rate (After Tax)	7.90%
Calculation of Marginal Capital Carry Charge Rate	
(5) Present Value of Revenue Requirements	\$561 /kW
(6) Annuity Factor Adjustment for Inflation **	0.07213
(7) Present Value of Revenue Requirements Adjusted for Inflation (5)*(6)	\$40.50
(8) Marginal Capital Carrying Charge Rate (7)/(1)	0.08728
(9) First Year Revenue Requirement (1)*(8)	\$40.50 /kW (2007 \$)
(10) Present Value at 7.90% for 0 years	\$40.50 /kW
(11) Present Value of Average Annual Fuel Savings	\$0.00 /kW
(12) Annual Avoided Capacity Cost (10)-(11)	\$40.50 /kW
(13) Adjusted for 15% Reserve Margin (12)*1.15	\$46.57 /kW
(14) Plus \$20.63/kW Fixed O & M (2007 \$) (13)+20.63	\$67.20 /kW
(15) Adjusted for Losses (14)/0.9674	\$69.47 /kW
(16) NET ANNUAL AVOIDED CAPACITY COST	\$69.47 /kW
(17) Net Winter On-Peak Avoided Capacity Cost (TOD PURCHASE) (16)*0.2795*100/2040	0.95 cents/kWh
(18) Net Summer On-Peak Avoided Capacity Cost (TOD PURCHASE) (16)*0.7205*100/1008	4.97 cents/kWh
(19) Net Annual On-Peak Avoided Capacity Cost (16)*100/3048	2.28 cents/kWh
(20) Net Winter Avoided Capacity Cost Averaged Over All Winter Hours (PURCHASE & SALE BILLING) (16)*0.2795*100/5832	0.33 cents/kWh
(21) Net Summer Avoided Capacity Cost Averaged Over All Summer Hours (PURCHASE & SALE BILLING) (16)*0.7205*100/2928	1.71 cents/kWh
(22) Net Annual Avoided Capacity Cost Average Over All Hours (16)*100/8760	0.79 cents/kWh

Note. The weighting factors 0.7205 and 0.2795 are obtained from NSP's most recent Cost of Service Study. These ratios represent relative summer and winter season capacity costs on NSP's system.

$$** AC = k \cdot (r-j) \cdot (1+j)^{(t-1)} \cdot [1 / (1-(1+j)^n / (1+r)^n)]$$

Where AC = Annual Charge in year t

t = Year (=1)

K = Total Present Value Cost of Original Investment

r = Discount Rate (Overall Marginal Cost of Capital) (7.90%)

j = Inflation Rate Net of Technology Progress (2.04%)

n = Expected Service Life of Investment (30 Years)

Northern States Power Company, d/b/a Xcel Energy
Electric Operations - State of Minnesota
Cogeneration and Small Power Production Tariff Filing

Exhibit 1
Page 1 of 1

RATE SHEETS

Attached are the rate sheets containing the three standard rates for purchase:

- A. Net Energy Billing Service,
- B. Purchase and Sale Billing Service, and
- C. Time of Day Purchase Service.

11/10/16

Northern States Power Company, a Minnesota corporation and wholly owned subsidiary of Xcel Energy Inc.
Minneapolis, Minnesota 55401
MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

NET ENERGY BILLING SERVICE
RATE CODE A50

Section No 9
10th Revised Sheet No 2

AVAILABILITY

Available to any small qualifying facility (SQF) of less than 40 kW capacity who receives non-time of day retail electric service from Company and offsets energy delivered by Company.

RATE

Metering Charge per Month

Single Phase	\$3.15
Three Phase	\$6.40

R
R

Payment per kWh for Energy Delivered to Company in
Excess of Energy Used

Oct-May Jun-Sep

With Retail Non-Demand Metered Service	\$0.0778	\$0.0917
With Retail Demand Metered Service	\$0.0424	\$0.0485

R
R

TERMS AND CONDITIONS OF SERVICE

1. Energy used by customer in excess of energy delivered by the SQF at the same site during the same billing period shall be billed in accordance with the appropriate non-time of day retail electric rate.

For demand metered General Service customers, the entire kW demand supplied by the Company at the same site during the same billing period shall be billed to the customer according to the appropriate general service demand charge rate.

2. Interconnection charges will be assessed by the Company on an individual basis for all costs associated with addition to or modification of Company facilities to accommodate the SQF. The net interconnection charge is the responsibility of the SQF.
3. The voltage and phase of customer's generator must be consistent with existing service and approved by the Company.
4. The customer must maintain a power factor of the generator as close to unity as is consistent with Company operating standards.

Date Filed: 01-02-07

By: Cynthia L. Leshner
President and CEO of Northern States Power Company

Effective Date: 01-01-07

Docket No. Not Applicable

Order Date: Not Applicable

11/10/16

Docket No. E999/CI-15-755
Attachment A, Page 37 of 48
PROPOSED

Northern States Power Company, a Minnesota corporation and wholly owned subsidiary of Xcel Energy Inc.
Minneapolis, Minnesota 55401
MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

PURCHASE AND SALE BILLING SERVICE
RATE CODE A51

Section No. 9
10th Revised Sheet No. 3

AVAILABILITY

Available to any small qualifying facility (SQF) of less than 40 kW capacity who receives non-time of day retail electric service.

RATE

Metering Charge per Month

Single Phase	\$5.50	R
Three Phase	\$8.00	R

Payment Schedule for Energy Delivered to Company

	<u>Oct-May</u>	<u>Jun-Sep</u>	
Energy Payment per kWh	\$0.0470	\$0.0500	R
Capacity Payment for Firm Power per kWh	\$0.0033	\$0.0171	R

FUEL CLAUSE

Payments subject to the adjustment provided for in Fuel Clause Rider.

DETERMINATION OF FIRM POWER

The SQF will have supplied firm power if during the billing period an on peak capacity factor of at least 65% was achieved. The calculation of the on peak capacity factor will be as follows: the average on peak period metered capacity delivered to the Company for the on peak period of the billing period divided by the greatest 15 minute metered capacity delivered for the on peak period of the same billing period expressed in percent and rounded to the nearest whole percent. If the percent calculated is 65 or greater, capacity payment will be made. If the percent calculated is less than 65, capacity payment will not be made.

TERMS AND CONDITIONS OF SERVICE

1. Electric service provided by Company to customer at the same site shall be billed in accordance with the appropriate non-time of day retail electric rate
2. Interconnection charges will be assessed by the Company on an individual basis for all costs associated with addition to or modification of Company facilities to accommodate the SQF. The net interconnection charge is the responsibility of the SQF
3. The voltage and phase of customer's generator must be consistent with existing service and approved by the Company.
4. The customer must maintain a power factor of the generator as close to unity as is consistent with Company operating standards

Date Filed: 01-02-07

By: Cynthia L. Leshner
President and CEO of Northern States Power Company

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Northern States Power Company, a Minnesota corporation and wholly owned subsidiary of Xcel Energy Inc.
Minneapolis, Minnesota 55401
MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

TIME OF DAY PURCHASE SERVICE
RATE CODE A52

Section No. 9
8th Revised Sheet No. 4

AVAILABILITY

Available to any qualifying facility (QF) of 100 kW capacity or less, and available to QF's with capacity of more than 100 kW if firm power is provided.

RATE

Metering Charge per Month

Single Phase	\$5.50	R
Three Phase	\$8.00	R

Payment Schedule for Energy Delivered to Company

	<u>Oct-May</u>	<u>Jun-Sep</u>	
On Peak Energy Payment per kWh	\$0.0602	\$0.0745	R
Off Peak Energy Payment per kWh	\$0.0398	\$0.0368	R
Capacity Payment for Firm Power per On Peak kWh	\$0.0095	\$0.0497	R

FUEL CLAUSE

Payments subject to the adjustment provided for in Fuel Clause Rider.

DETERMINATION OF FIRM POWER

The QF will have supplied firm power if during the billing period an on peak capacity factor of at least 65% was achieved. The calculation of the on peak capacity factor will be as follows: the average on peak period metered capacity delivered to the Company for the on peak period of the billing period divided by the greatest 15 minute metered capacity delivered for the on peak period of the same billing period expressed in percent and rounded to the nearest whole percent. If the percent calculated is 65 or greater, capacity payment will be made. If the percent calculated is less than 65, capacity payment will not be made.

TERMS AND CONDITIONS OF SERVICE

1. Electric service provided by Company to customer at the same site shall be billed in accordance with the appropriate time of day retail electric rate.
2. Interconnection charges will be assessed by the Company on an individual basis for all costs associated with addition to or modification of Company facilities to accommodate the QF. The net interconnection charge is the responsibility of the QF.
3. The voltage and phase of customer's generator must be consistent with existing service and approved by the Company.
4. The customer must maintain a power factor of the generator as close to unity as is consistent with Company operating standards.

Date Filed: 01-02-07

By: Cynthia L. Leshner
President and CEO of Northern States Power Company

Effective Date: 01-01-07

Docket No. Not Applicable

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Northern States Power Company d/b/a Xcel Energy, a Minnesota corporation
and wholly owned subsidiary of Xcel Energy Inc.
Minneapolis, Minnesota 55401
MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

NET ENERGY BILLING SERVICE
RATE CODE A50

Section No. 9
8910th Revised Sheet No 2

AVAILABILITY

Available to any small qualifying facility (SQF) of less than 40 kW capacity who receives non-time of day retail electric service from Company and offsets energy delivered by Company.

RATE

Metering Charge per Month

Single Phase	\$3.003.15
Three Phase	\$6.256.40

R
R

Payment per kWh for Energy Delivered to Company in

Oct-May

Jun-Sep

Excess of Energy Used

With Retail Non-Demand Metered Service	\$0.07080.0778	\$0.08770.0917
With Retail Demand Metered Service	\$0.03860.0424	\$0.04700.0485

R
R

TERMS AND CONDITIONS OF SERVICE

- Energy used by customer in excess of energy delivered by the SQF at the same site during the same billing period shall be billed in accordance with the appropriate non-time of day retail electric rate.

For demand metered General Service customers, the entire kW demand supplied by the Company at the same site during the same billing period shall be billed to the customer according to the appropriate general service demand charge rate.

- Interconnection charges will be assessed by the Company on an individual basis for all costs associated with addition to or modification of Company facilities to accommodate the SQF. The net interconnection charge is the responsibility of the SQF.
- The voltage and phase of customer's generator must be consistent with existing service and approved by the Company.
- The customer must maintain a power factor of the generator as close to unity as is consistent with Company operating standards

Date Filed: 01-0302-0607 By: Kent T. Larson Cynthia L. Leshner Effective Date: 01-01-0607

Vice President of Jurisdictional Relations Cynthia L. Leshner

Docket No. Not Applicable

Order Date: Not Applicable

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Northern States Power Company d/b/a Xcel Energy, a Minnesota corporation
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Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

PURCHASE AND SALE BILLING SERVICE
RATE CODE A51

Section No. 9
8th-109th Revised Sheet No. 3

AVAILABILITY

Available to any small qualifying facility (SQF) of less than 40 kW capacity who receives non-time of day retail electric service.

RATE

Metering Charge per Month

Single Phase

\$5.35 5.50

R

Three Phase

\$7.85 8.00

R

Payment Schedule for Energy Delivered to Company

Oct-May

Jun-Sep

Energy Payment per kWh

\$0.04070.0470

\$0.05080.0500

R

Capacity Payment for Firm Power per kWh

\$0.00290.0033

\$0.01490.0171

R

FUEL CLAUSE

Payments subject to the adjustment provided for in Fuel Clause Rider.

DETERMINATION OF FIRM POWER

The SQF will have supplied firm power if during the billing period an on peak capacity factor of at least 65% was achieved. The calculation of the on peak capacity factor will be as follows: the average on peak period metered capacity delivered to the Company for the on peak period of the billing period divided by the greatest 15 minute metered capacity delivered for the on peak period of the same billing period expressed in percent and rounded to the nearest whole percent. If the percent calculated is 65 or greater, capacity payment will be made. If the percent calculated is less than 65, capacity payment will not be made.

TERMS AND CONDITIONS OF SERVICE

1. Electric service provided by Company to customer at the same site shall be billed in accordance with the appropriate non-time of day retail electric rate.
2. Interconnection charges will be assessed by the Company on an individual basis for all costs associated with addition to or modification of Company facilities to accommodate the SQF. The net interconnection charge is the responsibility of the SQF.
3. The voltage and phase of customer's generator must be consistent with existing service and approved by the Company.
4. The customer must maintain a power factor of the generator as close to unity as is consistent with Company operating standards

Date Filed: 01-0302-0607

By: Kent T. Larson Cynthia L. Leshner

Effective Date: 01-01-0607

Vice President of Jurisdictional Relations President and CEO of Northern States Power Company

Docket No Not Applicable

Order Date: Not Applicable

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11/10/16

Docket No. E999/CI-15-755
Attachment A, Page 41 of 48
PROPOSED

Northern States Power Company d/b/a Xcel Energy, a Minnesota corporation
and wholly owned subsidiary of Xcel Energy Inc.
Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

TIME OF DAY PURCHASE SERVICE
RATE CODE A52

Section No. 9
8th-9th Revised Sheet No. 4

AVAILABILITY

Available to any qualifying facility (QF) of 100 kW capacity or less, and available to QF's with capacity of more than 100 kW if firm power is provided.

RATE

Metering Charge per Month

Single Phase	\$5.35 5.50	R
Three Phase	\$7.85 8.00	R

Payment Schedule for Energy Delivered to Company

	<u>Oct-May</u>	<u>Jun-Sep</u>	
On Peak Energy Payment per kWh	\$0.05640 0.0602	\$0.08480 0.0745	R
Off Peak Energy Payment per kWh	\$0.03240 0.0398	\$0.03380 0.0368	R
Capacity Payment for Firm Power per On Peak kWh	\$0.00830 0.0095	\$0.04320 0.0497	R

FUEL CLAUSE

Payments subject to the adjustment provided for in Fuel Clause Rider.

DETERMINATION OF FIRM POWER

The QF will have supplied firm power if during the billing period an on peak capacity factor of at least 65% was achieved. The calculation of the on peak capacity factor will be as follows: the average on peak period metered capacity delivered to the Company for the on peak period of the billing period divided by the greatest 15 minute metered capacity delivered for the on peak period of the same billing period expressed in percent and rounded to the nearest whole percent. If the percent calculated is 65 or greater, capacity payment will be made. If the percent calculated is less than 65, capacity payment will not be made.

TERMS AND CONDITIONS OF SERVICE

1. Electric service provided by Company to customer at the same site shall be billed in accordance with the appropriate time of day retail electric rate.
2. Interconnection charges will be assessed by the Company on an individual basis for all costs associated with addition to or modification of Company facilities to accommodate the QF. The net interconnection charge is the responsibility of the QF.
3. The voltage and phase of customer's generator must be consistent with existing service and approved by the Company.
4. The customer must maintain a power factor of the generator as close to unity as is consistent with Company operating standards.

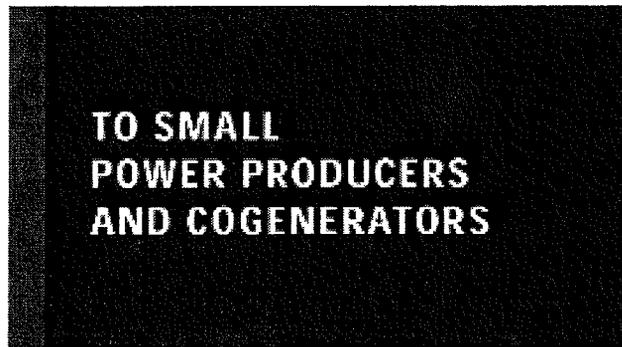
Date Filed: 01-03-0607 By: ~~Kent T. Larson~~ Cynthia L. Leshner Effective Date: 01-01-0607
 Vice President of Jurisdictional Relations President and CEO of Northern States Power Company
 Docket No. Not Applicable Order Date: Not Applicable

Northern States Power Company, d/b/a Xcel Energy
Electric Operations - State of Minnesota
Cogeneration and Small Power Production Tariff Filing

Exhibit 2
Page 1 of 2

NOTIFICATION TO CUSTOMERS

1. Contents of Written Notice which would be mailed to all customers. This is a sample of the billing stuffer consistent with the version approved by the Commission with Xcel Energy's June 27, 1983 filing.



Federal and state laws require Xcel Energy and other utilities to buy all electric energy that qualified small power producers and cogenerators offer for sale. Qualified facilities may be interconnected with our system for this purpose.

Small power producers generate 80 megawatts of electricity or less, using as fuel a renewable resource or waste product: garbage, peat, wood by-products, wind, water or sun. A common example of this kind of facility in the Midwest is a wind generator. Cogenerators produce sequentially both electricity and useful heat energy. These facilities may use a non-renewable fuel, such as oil, natural gas or coal. An example is a paper mill that makes steam for electrical generation and, secondarily, for paper production. The Minnesota Public Utilities Commission regulates the purchase price and service interconnection requirements between qualifying facilities and utilities. The commission also resolves disputes that might arise.

Commercial and industrial customers who do not intend to sell electric energy to Xcel Energy, but are interested in parallel generation options, may obtain Xcel Energy's Interconnection Guidelines booklet for information on interconnection requirements. To find out more about qualifying facilities and requirements for interconnection, please call 1-800-481-4700.



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Xcel Energy is a trademark of Xcel Energy Inc
1-800-481-4700
www.xcelenergy.com

11/10/16

Docket No. E999/CI-15-755
Attachment A, Page 43 of 48

Northern States Power Company, d/b/a Xcel Energy
Electric Operations - State of Minnesota
Cogeneration and Small Power Production Tariff Filing

Exhibit 2
Page 2 of 2

2. Contents of information to be sent to interested customers:
 - A. Copy of the rate sheets (i.e., Exhibit 1) which include definitions, the standard rates for purchase, a standard contract form, and the rules and regulations of service.
 - B. The statement: "Inquiries can be directed to Xcel Energy, Service Policy Department, 414 Nicollet Mall, Minneapolis, MN 55401, telephone number (612) 330-6216."
 - C. The statement: "The Minnesota Public Utilities Commission is available to resolve disputes upon written request. You may address your complaint to "Minnesota Public Utilities Commission, 121 7th Place East, Suite 350, St. Paul, MN 55101-2147 or call (651) 296-7124".

STATE OF MINNESOTA
BEFORE THE
MINNESOTA PUBLIC UTILITIES COMMISSION

In the Matter of the Petition of
Northern States Power Company, a
Minnesota corporation and wholly
owned subsidiary of Xcel Energy
Inc. for Approval of 2007
Cogeneration and Small Power
Production Rates

Docket No. _____

SUMMARY OF FILING

Please take notice that on January 02, 2007, Northern States Power Company, a Minnesota corporation and wholly owned subsidiary of Xcel Energy Inc. (“Xcel Energy “ or the “Company”) filed with the Minnesota Public Utilities Commission (the “Commission”) its petition for a miscellaneous rate change revising cogeneration and small power production rates for the year 2007. This is an annual filing that is required by Minn. Rule 7835.0300. The revised tariff sheets and schedules reflect the use of updated avoided cost inputs and any impact on customer charges, demand charges and energy charges and related tariff provisions. The three tariff sheets filed therein show the customer charge (which the customer pays Company and the demand and energy charges (which Company pays the customer, as compensation for avoided generation costs). The PUBLIC version of the filing compares Company’s avoided energy and capacity costs to its most recent average retail rates. The NONPUBLIC version of the filing includes additional details regarding system average incremental energy costs and costs of planned firm capacity purchases. The new rates have not changed materially from last year’s rates and are proposed for implementation effective January 1, 2007.

CERTIFICATE OF SERVICE

I, Carole Wallace, hereby certify that I have this day served copies or summaries of the foregoing document on the attached list of persons by delivery by hand or by causing to be placed in the U.S. mail at Minneapolis, Minnesota.

**DOCKET NO. ANNUAL FILING OF COGENERATION AND SMALL POWER
PRODUCTION TARIFFS. MISCELLANEOUS ELECTRIC SERVICE LIST.**

Dated this 2nd day of January 2007

Carole Wallace

11/10/16

Docket No. E999/CI-15-755
Attachment A, Page 46 of 48

Northern States Power Company d/b/a Xcel Energy
Miscellaneous Electric Service List

7/2006

Burl W. Haar
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CERTIFICATE OF SERVICE

I, Lynnette Sweet, 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. E999/CI-15-755

Dated this 10th day of November 2016

/s/

Lynnette Sweet

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Jacob J.	Schlesinger	jschlesinger@kfwlaw.com	Keyes & Fox LLP	1580 Lincoln St., Suite 880 Denver, CO 80203	Electronic Service	No	OFF_SL_15-755_Official Service List _PUC
Christopher	Schoenherr	cp.schoenherr@smmpa.org	SMMPA	500 First Ave SW Rochester, MN 55902-3303	Electronic Service	No	OFF_SL_15-755_Official Service List _PUC

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Dean	Sedgwick	N/A	Itasca Power Company	PO Box 457 Bigfork, MN 56628-0457	Paper Service	No	OFF_SL_15-755_Official Service List _PUC
David	Shaffer	DShaffer@MnSEIA.org	Minnesota Solar Energy Industries Project	2952 Beechwood Ave Wayzata, MN 55391	Electronic Service	No	OFF_SL_15-755_Official Service List _PUC
Doug	Shoemaker	dougs@mnRenewables.org	MRES	2928 5th Ave S Minneapolis, MN 55408	Electronic Service	No	OFF_SL_15-755_Official Service List _PUC
Mrg	Simon	mrgsimon@mrenergy.com	Missouri River Energy Services	3724 W. Avera Drive P.O. Box 88920 Sioux Falls, SD 571098920	Electronic Service	No	OFF_SL_15-755_Official Service List _PUC
Trevor	Smith	trevor.smith@avantenergy.com	Avant Energy, Inc.	220 South Sixth Street Suite 1300 Minneapolis, Minnesota 55402	Electronic Service	No	OFF_SL_15-755_Official Service List _PUC
Beth H.	Soholt	bsoholt@windonthewires.org	Wind on the Wires	570 Asbury Street Suite 201 St. Paul, MN 55104	Electronic Service	No	OFF_SL_15-755_Official Service List _PUC
Cary	Stephenson	cStephenson@otpc.com	Otter Tail Power Company	215 South Cascade Street Fergus Falls, MN 56537	Electronic Service	No	OFF_SL_15-755_Official Service List _PUC
Eric	Swanson	eswanson@winthrop.com	Winthrop Weinstine	225 S 6th St Ste 3500 Capella Tower Minneapolis, MN 554024629	Electronic Service	No	OFF_SL_15-755_Official Service List _PUC
Thomas P.	Sweeney III	tom.sweeney@easycleanenergy.com	Clean Energy Collective	P O Box 1828 Boulder, CO 80306-1828	Electronic Service	No	OFF_SL_15-755_Official Service List _PUC
Steve	Thompson	BADEMAIL-stevet@cmmpa.org	Central Minnesota Municipal Power Agency	459 S Grove St Blue Earth, MN 56013-2629	Paper Service	No	OFF_SL_15-755_Official Service List _PUC

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Sam	Villella	sdvillella@gmail.com		10534 Alamo Street NE Blaine, MN 55449	Electronic Service	No	OFF_SL_15-755_Official Service List _PUC
Roger	Warehime	warehimer@owatonnautilities.com	Owatonna Public Utilities	208 South WalnutPO Box 800 Owatonna, MN 55060	Electronic Service	No	OFF_SL_15-755_Official Service List _PUC
Paul	White	paul.white@prcwind.com	Project Resources Corp./Tamarac Line LLC/Ridgewind	618 2nd Ave SE Minneapolis, MN 55414	Electronic Service	No	OFF_SL_15-755_Official Service List _PUC
Jason	Willett	jason.willett@metc.state.mn.us	Metropolitan Council	390 Robert St N Saint Paul, MN 55101-1805	Electronic Service	No	OFF_SL_15-755_Official Service List _PUC
Randi	Winter	rwinter@felhaber.com	Felhaber Larson	Felhaber Larson 220 South Sixth Street, Suite 2200 Minneapolis, MN 55402	Electronic Service	No	OFF_SL_15-755_Official Service List _PUC
Cam	Winton	cwinton@mnchamber.com	Minnesota Chamber of Commerce	400 Robert Street North Suite 1500 St. Paul, Minnesota 55101	Electronic Service	No	OFF_SL_15-755_Official Service List _PUC
Robyn	Woeste	robynwoeste@alliantenergy.com	Interstate Power and Light Company	200 First St SE Cedar Rapids, IA 52401	Electronic Service	No	OFF_SL_15-755_Official Service List _PUC
Daniel P	Wolf	dan.wolf@state.mn.us	Public Utilities Commission	121 7th Place East Suite 350 St. Paul, MN 551012147	Electronic Service	Yes	OFF_SL_15-755_Official Service List _PUC

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
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