

Minnesota Public Utilities Commission

Staff Briefing Papers

Meeting Date: January 22, 2015 *Agenda Item #2

Company: Xcel Energy (Xcel or the Company)

Docket No. **E-002/M-14-648**

In the Matter of the Petition of Northern States Power Company for Approval of Interconnection Tariff Changes

Issue: Should the Commission approve Xcel Energy's proposed modifications to its Interconnection Tariff?

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Relevant Documents

Xcel Energy, Initial Filing July 31, 2014
Department of Commerce, Initial Comments August 26, 2014
Xcel Energy, Initial Reply Comments September 17, 2014
Department of Commerce, Reply Comments October 14, 2014
Xcel Energy, Supplemental Reply Comments December 3, 2014
Department of Commerce, Supplemental Reply Comments December 4, 2014
Xcel Energy, Response to PUC Staff Information Requests December 22, 2014

The attached materials are workpapers of the Commission Staff. They are intended for use by the Public Utilities Commission and are based upon information already in the record unless noted otherwise.

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Statement of the Issue

Should the Commission approve Xcel Energy's proposed modifications to its Interconnection Tariff?

Background

In Xcel Energy's (Xcel or the Company) 2011 electric rate case, the Minnesota Chamber of Commerce (MCC) voiced concerns about the Company's interconnection tariff. As the MCC noted, under the current tariff generators wishing to interconnect are required to pay the actual cost of engineering studies for installations over 250 kW, but are not given up-front estimates of what the cost will be. The Company and MCC entered into a partial settlement agreement in which the parties would work together "to modify the tariff language to provide for firm cost estimates to perform Distributed Generation interconnection studies, and to complete the studies within a reasonable period of time."¹

Xcel and the MCC worked together to develop firm estimates for interconnection studies, which resulted in several proposed revisions to the corresponding tariff sheets. Xcel also proposed additional tariff changes to combine the application fee and interconnection study fee into a single payment. In total, the Company proposed modifications to the following tariff sheets: 10-85, 10-91, 10-93, 10-94, 10-95. A redline version of these sheets is included as Appendix B to these briefing papers.²

Overview

The Department largely supported the tariff changes proposed by Xcel and MCC, with one exception: the proposed application and engineering review fee for installations of 20 kW or less. The Department also noted that some customers may have been charged a non-tariffed rate for small interconnections.

These briefing papers begin with a brief summary of Xcel's proposed tariff changes, followed by a discussion of fees for small installations, including the Department's concerns and Xcel's proposed compromise. Next, Staff describes the alleged overcharges for small interconnections. Finally, Staff proposes a minor modification to one of Xcel's proposed tariff changes.

Tariff Changes

Here, Staff provides a broad overview of the proposed changes. A more detailed description of the changes can be found in Appendix A, and redlined tariff pages are attached as Appendix B.

¹ Docket E002/GR-10-971, FINDINGS OF FACT, CONCLUSIONS, AND ORDER, May 14, 2012, Order Point 4E, page 34.

² Note: The tariff sheets attached as Appendix B do not include changes agreed to by the DOC and Xcel in the supplemental round of comments.

Xcel's proposed changes are focused on two main objectives: providing customers who are considering Distributed Generation (DG) a more explicit estimate of interconnection fees in advance; and combining application and engineering study fees into a single charge. Currently, potential DG facilities with a nameplate capacity over 250 kW are charged the actual engineering study costs—which are unknown in advance—and an application fee between \$0 to \$1,500, depending on the type of interconnection.³ As proposed, the combined application and engineering study charge would range from \$0 to \$3,000. The most complex DG installations will still be charged the actual engineering study costs, but Xcel will be required to provide a firm cost estimate at the time of its preliminary interconnection review.⁴ According to the Company, the proposed changes, which include both increases and decreases in fees, will have no net impact on its revenues.

With the exception of smaller interconnections, which are the subject of the following section, the Department endorsed these changes. In its own words: “The Department understands the MCC was concerned with obtaining more surety regarding the engineering study costs for the larger, more complex interconnections. Xcel’s proposed tariff revision appears to provide that surety with adequate protections to remaining ratepayers in the event the interconnection scope is revised.”⁵

Installations of 20 kW or Less

Initial Department Concerns

In its initial comments, the Department took issue with the changes to fees for small (≤ 20 kW) installations. Presently, these small installations pay an application fee of \$0 to \$100—depending on the type of interconnection—and no engineering fee. Under Xcel’s initial proposal, the combined fee was increased to \$250. The Department noted that the proposed combined fee (\$250) is the same charged to Solar*Rewards customers, which are also ≤ 20 kW. The Department expressed general support for assigning costs to the appropriate cost-causers; in this case, however, the Department believed it was unclear what fee amount is the most reasonable estimate of the actual cost of application processing and engineering studies for small installations.

The Department asked the Company to provide an explanation for its proposed fee, including a description of the costs the Company incurs in processing small interconnection applications and a description of the cost differences in reviewing Solar*Rewards and similarly-sized non-Solar*Rewards installations.

The Company’s Response

In response, the Company stated its proposed fee increase was an attempt to bring interconnection application fees more in line with the actual cost to the Company to process them. The Company elaborated on the costs of application processing and engineering studies:

³ The full fee table can be found on tariff page 10-93 in Appendix B.

⁴ The Company would still be allowed to update the fee if the scope of the interconnection changes after the estimate is provided.

⁵ Department of Commerce, Initial Comments, August 26, 2014, at page 2.

Evaluating applications for systems under 20 kW involves checking the application information for completeness and following-up on any missing information, reviewing the interconnection agreement, confirming proof of insurance, and assessing the site diagram and site plan to verify the proposed facility is suitable for interconnection. An investigation of the transformer capacity and voltage considerations for any existing DG at the premise or routed through the same transformer must also be completed. In non-certified cases the test procedure used to verify the protection and operation of the system must be approved, and field checks and witness testing may be conducted. Both area engineering and an electrical engineer from the meter shop review each application. The review generally takes between two and a half and five hours of time. Rates for this work can be as low as \$40 per hour for a recently graduated contract engineer up to the fully loaded labor rate of an internal engineer at \$80 per hour. Therefore, we estimate the range of cost for these evaluations to be \$100 to \$400 (\$40 per hour for 2.5 hours up to \$80 per hour for 5 hours).

In response to the Department's request for an explanation of the cost differences between Solar*Rewards and non-Solar*Rewards installations, the Company noted the engineering review process is the same in each case. The Company did note some additional administrative costs from Solar*Rewards customers.⁶

Proposed Adjustment

In its Supplemental Reply comments, the Company proposed a reduction in the interconnection fee for ≤ 20 kW installations from \$250 to \$100.⁷ This reduction would not apply to Solar*Rewards customers, who would still pay a \$250 interconnection fee. In its Supplemental Reply comments, the Department concluded this amendment was reasonable.

Staff Comment

The adjustment agreed to by Xcel and the Department raises the question: if a \$100 fee is appropriate for small, non-Solar*Rewards interconnections, then is it appropriate to charge a \$250 fee for similarly-sized interconnections in the Solar*Rewards program?

Staff identifies two reasons why this may be appropriate. First, it could be that Solar*Rewards applications are more burdensome to process. However, the evidence in this record does not support this contention. In its supplemental reply comments, Xcel stated that the engineering review process is the same for both. Xcel did note that it uses special application-processing software for its Solar*Rewards customers;⁸ however, in its initial reply comments, the Company stated the software has helped "reduce costs, increase efficiency, and streamline the process for interconnecting small generation facilities," and noted it is considering using the software for

⁶ Specifically, the Company cited "some additional time" to establish program compliance, and a \$300 annual website license. See: Xcel Energy, Supplemental Reply Comments, December 3rd, 2014, at page 2.

⁷ For 20 kW or less installations with an open transfer, the fee would remain at \$0.

⁸ In supplemental comments, filed on December 3, 2014, Xcel explained that the Company must purchase and annually renew a \$300 Salesforce site license to establish a user ID for each developer or individual customer requesting interconnection.

non-Solar*Rewards customers as well.⁹ There is even evidence that Solar*Rewards engineering reviews may be less time-intensive: in its response to Staff Information Request (IR) #2, Xcel stated that all Solar*Rewards applications use certified inverters, which obviates the need for additional engineering review and verification.

A second reason why it may be appropriate to charge a higher fee for Solar*Rewards is that Solar*Rewards is an incentive program under which customers receive a premium (currently \$0.08/kWh). As the Company notes, the amount of time required to process applications varies from case-to-case. Given that Solar*Rewards customers receive a premium, one could argue that it is reasonable to be more conservative in estimating the amount of time required for application processing, as participating customers would still be better off under Solar*Rewards with a larger application fee than they would be outside the program with a smaller application fee. However, Staff notes this argument diverges from the principle of aligning cost-responsibility with cost-causation, which both Xcel and the Department endorse.

Staff acknowledges that there may be additional arguments in favor of charging Solar*Rewards customers a higher application fee; if parties have additional arguments, Staff requests parties present them at the upcoming agenda meeting.

If the Commission decides it is inappropriate to charge different application fees for Solar*Rewards and similarly-sized non-Solar*Rewards interconnections, the question then becomes: what is the appropriate application and engineering review fee for projects of 20 kW or less? In its supplemental reply comments, Xcel stated that the entire review process takes approximately 2.5 to 5 hours. In its response to Staff IR #1, Xcel provided more specific estimates, stating administrative processing takes approximately 30 minutes and the engineering review takes approximately 1 to 4 hours. According to the U.S. Department of Labor, the average hourly income for an electrical engineer in the “Electric Power Generation, Transmission and Distribution” industry is \$42.26.^{10,11} Assuming a \$20 rate for the administrative processing, the cost range for application and engineering review would be roughly \$50 to \$180, with a midpoint of roughly \$115.¹² This is roughly in keeping with the Interstate Renewable Energy Council’s 2013 Model Interconnection Procedures, which recommend an application fee of \$100 for interconnections of 25 kW or less.¹³

⁹ Xcel Energy, Initial Reply Comments, September 17, 2014, at page 2.

¹⁰ U.S. Department of Labor, Bureau of Labor Statistics. “Occupational Employment Statistics, 17-2071 Electrical Engineers,” May 2013. Available online at <http://www.bls.gov/oes/current/oes172071.htm#ind>

¹¹ In its supplemental reply comments, Xcel stated its labor costs were considerably above the national average, with an entry level wage of \$40 per hour and a “fully loaded labor rate of an internal engineer” of \$80 per hour (\$166,400 annually), nearly double the national average. Here, Staff uses the national average, as Staff assumes smaller interconnections are simpler and do not require review by Xcel’s most senior engineers.

¹² Lower estimate: $\$20/\text{hr} * .5 \text{ hrs} + \$42.26/\text{hr} * 1 \text{ hr} = \$10 + \$42.26 = \52.26 . Upper estimate: $\$20/\text{hr} * .5 \text{ hrs} + \$42.26/\text{hr} * 4 \text{ hrs} = \$10 + \$169.04 = \179.04 . Mean: $(\$52.26 + 179.04) / 2 = \115.65 .

¹³ Interstate Renewable Energy Council, “Model Interconnection Procedures, 2013 Edition.” Available online at <http://www.irecusa.org/wp-content/uploads/2013-IREC-Interconnection-Model-Procedures.pdf>

Small DG Interconnection Overcharges

The Department also pointed out that Xcel appears to have overcharged some customers for small DG interconnections. In its reply comments, the Department noted that the Company has charged some small (20 kW or less), non-Solar*Rewards facilities a \$250 engineering study fee rather than the appropriate tariffed fee of \$0 or \$100.

In its Supplemental Reply comments, the Company admitted it had overcharged for interconnections in some cases. The Company pointed to Docket No. E002/M-01-937, in which the Company established a study fee of \$250 for DG interconnections \leq 100 kW. This tariff sheet was in effect from July 29, 2002 to September 1, 2012, when it was cancelled as part of the Company's 2011 electric rate case. The Company continued charging some customers a \$250 interconnection fee after September 2012. The Company estimates that approximately 20 customers were over charged; Xcel proposes to provide these customers a refund.

The Department identified the relevant Rules on overcharges:

Minnesota Rules, part 7820.3800, subpart 1 states (emphasis added):

When a customer has been overcharged or undercharged as a result of incorrect reading of the meter, **incorrect application of rate schedule**, incorrect connection of the meter, application of an incorrect multiplier or constant or other similar reasons, the amount of the overcharge shall be refunded to the customer or the amount of the undercharge may be billed to the customer as detailed in subparts 2 through 4.

Minnesota Rules, part 7820.3800, subpart 2 states, in part (emphasis added):

When a utility has overcharged a customer, the utility shall calculate the difference between the amount collected for service rendered and the amount the utility should have collected for service rendered, **plus interest**, for the period beginning three years before the date of discovery. Interest must be calculated as prescribed by Minnesota Statutes, section 325E.02, paragraph (b).

The Department believes this constitutes an "incorrect application of rate schedule," and recommends that any customers who were overcharged be issued a refund with interest.

Additional Tariff Change

Xcel proposes the following changes to the last paragraph to tariff sheet 10-95:

Once it is known by Xcel Energy that ~~the scope of the project has changed, actual costs for the engineering studies will exceed the estimated amount by more the 25%,~~ then the Applicant shall be notified. Xcel Energy shall then provide ~~the reason(s) for the studies needing to exceed the original estimated amount and provide~~ an updated firm cost estimate ~~of the total cost~~ for the engineering studies. The Applicant shall be given the option of either withdrawing the application and having any unspent fees refunded, or paying the additional estimated amount to continue with the engineering studies.

Staff Comment

Staff presumes that the only way the “scope of the project” could change is if the Applicant decided to make a substantial adjustment to its proposed installation. In that case, the Company would not need to notify the Applicant that the scope had changed; it would only need to notify the Applicant of the increased engineering study cost. Accordingly, Staff recommends altering the modification:

~~Once it is known by~~ ~~If the Applicant notifies~~ Xcel Energy that the scope of the project has changed, actual costs for the engineering studies will exceed the estimated amount by more the 25%, then the Applicant shall be notified. Xcel Energy shall then provide the Applicant with the reason(s) for the studies needing to exceed the original estimated amount and provide an updated firm cost estimate ~~of the total cost~~ for the engineering studies. The Applicant shall be given the option of either withdrawing the application and having any unspent fees refunded, or paying the additional estimated amount to continue with the engineering studies.

Oral Comments by Parties

Staff has suggested decision alternatives not raised by any party, so pursuant to Minnesota Rules 7829.2600, parties may be granted oral argument.

7829.2600 STAFF COMMENTS.

Written comments on a filing by commission staff must be made available to those persons on the service list at the same time they are provided to the commission. If commission staff recommend action not advocated by any party, all parties must be granted oral comment at the request of any party.

Decision Alternatives

Tariff Sheet Modifications

1. Approve Xcel Energy’s modifications to tariff sheets 10-85, 10-91, 10-93, 10-94, 10-95 as proposed in the Company’s July 31, 2014 filing in this docket;
OR,
2. Approve Xcel Energy’s modifications to tariff sheets 10-85, 10-91, 10-93, 10-94, 10-95 as proposed in the Company’s July 31, 2014 filing in this docket, *with the following alterations:*
 - A) On tariff sheet 10-93, change the title on the fee structure table from “Generation Interconnection Application Fees” to “Generation Interconnection Application and Engineering Study Fees.” (*Xcel, the Department*)

- B) On tariff sheet 10-93, change the interconnection application and study fee for facilities less than or equal to 20 kW from \$250 to \$100. Maintain a fee of \$0 for open transfer interconnections of 20kW or less. (*Xcel, the Department*)
- C) On tariff sheet 10-95, Amend the final paragraph to read:
 - If the Applicant notifies Xcel Energy that the scope of the project has changed, Xcel Energy shall then provide the Applicant with an updated firm cost estimate for the engineering studies. The Applicant shall be given the option of either withdrawing the application and having any unspent fees refunded, or paying the additional estimated amount to continue with the engineering studies.
- D) Require Xcel to make a compliance filing, within 15 days of the Order in this matter, reflecting the Commission's decisions regarding modified tariff sheets.

OR,

- 3. Deny Xcel Energy's request to modify tariff sheets 10-85, 10-91, 10-93, 10-94, 10-95.

Customer Refunds

- 4. Order Xcel Energy to provide refunds, with interest, to customers charged the \$250 application fee for facilities of 20 kW or less after September 1, 2012. (*Xcel, the Department*)
- 5. Require Xcel to make a compliance filing, within 15 days of providing a refund to customers, demonstrating that the refund has been made pursuant to Minnesota Rules, part 7820.3800, subparts 1 and 2.

Solar*Rewards Application and Engineering Fee (additional modifications proposed by Staff)

- 6. Reduce the interconnection application and study fee for Solar*Rewards customers to \$100.
- 7. Reduce the interconnection application and study fee for Solar*Rewards customers to \$115.
- 8. Change the interconnection application and study fee for Solar*Rewards customers to some other amount.

9. Require Xcel, within 15 days of the Order in this matter, to file the revised tariff sheets for the Solar*Rewards program based on the Commission's decision in this matter.

9. Take no action.

Appendix A

Xcel Energy proposes changes to Tariff Sheets 10-85, 10-91, 10-93, 10-94, and 10-95. These changes serve two main purposes: providing customers with more certainty in interconnection study fees and combining application and engineering study fees. On pages 4 and 5 of its initial filing in this docket, Xcel Energy provided the following description of its proposed changes. A redlined version of these tariff sheets can be found in Appendix B, below.

Proposed Tariff Modifications to provide Firm Study Estimates

- **Tariff Sheet 10-93:** The fees in the Application Fees table are fixed for all applicants except those with larger, more complicated interconnection types. The interconnection applications that may require further study fees are identified with an asterisk, with a note indicating that firm cost estimates for further studies will be provided to the applicant at the time of preliminary review, based on the scope of the interconnection provided in the application. With this proposal, the applicant's fee structure is known prior to submitting the application for all but the most complex interconnection situations. For applicants whose interconnections are complex, a firm cost estimate is provided at the time of preliminary review.
- **Tariff Sheet 10-94:** The proposed changes include the addition of the phrase "will be designated" in Step 2, part 1 in order to form a complete sentence.
- **Tariff Sheet 10-95:** Under Step 4, proposed language includes a provision for the applicant to receive an updated firm cost estimate for engineering studies should the scope of the project change from the original application. Upon receiving the updated estimate, the applicant has the option to pay the additional estimate and continue with the studies or withdraw the application and receive a refund for any unspent fees from the original application. Also, clarifying language is proposed in Step 3 part 1 in order to direct the applicant to the fee table on tariff sheet 10-93.

Additional Tariff Modifications to Combine Interconnection Application and Engineering Study Fees

- **Tariff Sheet 10-85:** The proposed changes include the correction of typographical errors, which includes fixing the definition of Quick Closed transfer in order to match transfer switch "make before break" definition in the diagram on tariff sheet 10-159.3.

- **Tariff Sheet 10-91:** Proposed clarifying language includes the identification of tariff sheet numbers for various requirements.
- **Tariff Sheet 10-93:** The proposed changes include streamlining the interconnection application process by combining the application fees and study fees into one table. This allows the applicant to pay one fixed fee for application and study fees in all but the most complex scenarios. The proposed fees are aligned to recover costs associated with the application review and study processes. Additional fees may be required for further study in the case of the more complex interconnections; these scenarios are identified in the fee table along with a commitment to provide firm study cost estimates.
- **Tariff Sheet 10-94:** These changes include removal of the study fee table and adding a reference to direct the reader to the fee table on tariff sheet 10-93. The removal of the fees from this sheet support the combined table on sheet 10-93 for application and study fees.

Appendix B

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

PROPOSED

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

**DISTRIBUTED GENERATION STANDARD
INTERCONNECTION AND POWER PURCHASE TARIFF
(Continued)**

Section No. 10
~~Original~~1st Revised Sheet No. 85

GENERAL INFORMATION (Continued)

A. Definitions (Continued)

11. "Local EPS" is an electric power system (EPS) contained entirely within a single premises or group of premises.
12. "Nameplate Capacity" is the total nameplate capacity rating of all the Generation included in the Generation System. For this definition the "standby" and/or maximum rated kW capacity on the nameplate shall be used.
13. "Open Transfer" is a method of transferring the local loads from Xcel Energy to the generator such that the generator and Xcel Energy are never connected together.
14. "Point of Common Coupling" is the point where the Local EPS is connected to Xcel Energy.
15. "Quick Closed" is a method of generation transfer which does not parallel or parallels for less than ~~400~~500 msec with Xcel Energy and has utility grade timers which limit the parallel duration to less than ~~400~~500 msec with Xcel Energy.
16. "Technical Requirements" is the State of Minnesota Distributed Generation Interconnection Requirements".
17. "Transmission System" means those facilities as defined by using the guidelines established by the Minnesota State Public Utilities Commission; "In the Matter of Developing Statewide Jurisdictional Boundary Guidelines for Functionally Separating Interstate Transmission from Generation and Local Distribution Functions" Docket No. E-015/M-99-1002.

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B. Dispute Resolution

The following is the dispute resolution process to be followed for problems that occur with the implementation of this process.

1. Each Party agrees to attempt to resolve all disputes arising hereunder promptly, equitably and in a good faith manner.
2. In the event a dispute arises under this process, and if it cannot be resolved by the Parties within thirty (30) days after written notice of the dispute to the other Party, the Parties shall submit the dispute to mediation by a mutually acceptable mediator, in a mutually convenient location in the State of Minnesota. The Parties agree to participate in good faith in the mediation for a period of 90 days. If the parties are not successful in resolving their disputes through mediation, then the Parties may refer the dispute for resolution to the Minnesota Public Utilities Commission, which shall maintain continuing jurisdiction over this process.

(Continued on Sheet No. 10-86)

Date Filed: ~~11-02-05~~07-31-14 By: ~~Cynthia L. Leshner~~David M. Sparby Effective Date: ~~02-01-07~~
President and CEO of Northern States Power Company, ~~a Minnesota corporation~~
Docket No. E002/~~GR-05-1428~~M-14- Order Date: ~~09-01-06~~

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

**DISTRIBUTED GENERATION STANDARD
 INTERCONNECTION AND POWER PURCHASE TARIFF
 (Continued)**

Section No. 10
~~Original~~1st Revised Sheet No. 91

GENERAL INFORMATION (Continued)

I. Non-Warranty

Neither by inspection, if any, or non-rejection, nor in any other way, does Xcel Energy give any warranty, expressed or implied, as to the adequacy, safety, or other characteristics of any structures, equipment, wires, appliances or devices owned, installed or maintained by the Applicant or leased by the Applicant from third parties, including without limitation the Generation System and any structures, equipment, wires, appliances or devices pertinent thereto.

J. Required Documents

The chart below lists the documents required for each type and size of Generation System proposed for interconnection.

Find your type of Generation System interconnection, across the top, then follow the chart straight down, to determine what documents are required as part of the interconnection process.

GENERATION INTERCONNECTION DOCUMENT SUMMARY						
Open Transfer ≤ 1 MW	Open Transfer > 1 MW Only	Quick Closed Transfer	Soft Loading Transfer	Extended Parallel Operation		
				QF facility ≤40 kW	Without SalesNon- Exporting	With SalesExportin g & Net
Interconnection Process (This document, <u>beginning at Sheet No. 10-83</u>)						
State of Minnesota Distributed Generation Interconnection Requirements (<u>beginning at Sheet No. 10-135</u>)						
Generation Interconnection Application (Appendix B-<u>beginning at Sheet No. 10-102</u>)						
				Engineering Data Submittal (Appendix C-<u>beginning at Sheet No. 10-105</u>)		
				Interconnection Agreement (Appendix E-<u>beginning at Sheet No. 10-113</u>)		
				MISO / FERC		PPA

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(Continued on Sheet No. 10-92)

Date Filed: 11-02-0507-31-14 By: ~~Cynthia L. Leshor~~David M. Sparby Effective Date: 02-01-07
 President and CEO of Northern States Power Company, a Minnesota corporation
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**DISTRIBUTED GENERATION STANDARD
 INTERCONNECTION AND POWER PURCHASE TARIFF
 (Continued)**

Section No. 10
~~Original~~ 1st Revised Sheet No. 93

Process for Interconnection (Continued)

Step 1 Application (By Applicant) (Continued)

Generation Interconnection Application Fees

Interconnection Type	≤ 20 kW	> 20 kW & ≤ 250 kW	> 250 kW & ≤ 500 kW	> 500 kW & ≤ 1000 kW	> 1000 kW > 1 MW & ≤ 10 MW
Open Transfer	\$0	\$0	\$0	\$100	\$100
Quick Closed	\$0	\$100	\$100	\$250	\$500
Soft Loading	\$100	\$250	\$500	\$500	\$1000
Extended Parallel (Pro-Certified System)	\$0	\$250	\$1000	\$1000	\$1500
Other Extended Parallel Systems	\$100	\$500	\$1500	\$1500	\$1500
Open Transfer	\$0	\$0	\$0	\$0	\$250
Quick Closed Transfer	\$250	\$250	\$250	\$250	\$250
Soft Closed Transfer	\$250	\$250	\$500	\$500	\$1000
Extended Parallel Non-exporting Pre-certified	\$250	\$250	\$250	\$1000	\$1500*
Extended Parallel Non-exporting	\$250	\$250	\$1000	\$1000	\$2000*
Extended Parallel Pre-certified	\$250	\$500	\$2000	\$2000	\$1500*
Extended Parallel Non-Pre-certified	\$250	\$1000	\$3000	\$2000*	\$2000*

* Engineering study fees may apply. Firm cost estimate for study will be given at the time of preliminary review, based on scope provided in application. If scope changes after estimate is provided, then firm cost estimate may be updated.

(Continued on Sheet No. 10-94)

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 President and CEO of Northern States Power Company, a Minnesota corporation
 Docket No. E002/GR-05-1428M-14- Order Date: 09-01-06

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**DISTRIBUTED GENERATION STANDARD
INTERCONNECTION AND POWER PURCHASE TARIFF
(Continued)**

Section No. 10
~~Original~~ 1st Revised Sheet No. 93

This application fee is to contribute to Xcel Energy's labor costs for administration, review of the design concept and ~~preliminary engineering screening for the proposed Generation System interconnection~~ interconnection engineering review, except additional studies may be needed for the large, complex categories designated with an "*" in the above table.

N
N
N

For the Application Fees chart, above:

The size (kW) of the Generation System is the total maximum Nameplate Capacity of the Generation System.

Step 2 – Preliminary Review (By Xcel Energy)

L

~~Within 15 business days of receipt of all the information listed in Step 1, the Xcel Energy Generation Interconnection Coordinator shall respond to the Applicant with the information listed below. (If the information required in Step 1 is not complete, the Applicant will be notified, within 10 business days of what is missing and no further review will be completed until the missing information is submitted. The 15-day clock will restart with the new submittal)~~

~~As part of Step 2 the proposed Generation System will be screened to see if additional Engineering Studies are required. The base screening criteria is listed in the general information section of this document.~~

~~1) A single point of contact with Xcel Energy for this project. (Generation Interconnection Coordinator)~~

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(Continued on Sheet No. 10-94)

Date Filed: 11-02-0507-31-14 By: ~~Cynthia L. Leshner~~ David M. Sparby Effective Date: 02-01-07
President and CEO of Northern States Power Company, a Minnesota corporation
Docket No. E002/GR-05-1428M-14- Order Date: 09-01-06

**DISTRIBUTED GENERATION STANDARD
 INTERCONNECTION AND POWER PURCHASE TARIFF
 (Continued)**

Section No. 10
~~Original~~ 1st Revised Sheet No. 94

Process for Interconnection (Continued)

Step 2 Preliminary Review (By Xcel Energy)

~~Within 15 business days of receipt of all the information listed in Step 1, the Xcel Energy Generation Interconnection Coordinator shall respond to the Applicant with the information listed below. (If the information required in Step 1 is not complete, the Applicant will be notified, within 10 business days of what is missing and no further review will be completed until the missing information is submitted. The 15-day clock will restart with the new submittal)~~

~~As part of Step 2 the proposed Generation System will be screened to see if additional Engineering Studies are required. The base screening criteria is listed in the general information section of this document.~~

- 1) A single point of contact with Xcel Energy ~~will be designated~~ for this project. (Generation Interconnection Coordinator)

Step 2 Preliminary Review (By Xcel Energy) (Continued)

- 2) Approval or rejection of the generation interconnection request.
 - a) Rejection – Xcel Energy shall supply the technical reasons, with supporting information, for rejection of the interconnection Application.
 - b) Approval - An approved Application is valid for 6 months from the date of the approval. The Generation Interconnection Coordinator may extend this time if requested by the Applicant
- 3) If additional specialized engineering studies are required for the proposed interconnection, the following information will be provided to the Applicant. ~~Categories which may require additional study are noted in the Generation Interconnection Application Fees table in Step 1. Typical Engineering Studies are outlined in Appendix D. The costs to the Applicant, for these studies shall be not exceed the values shown in the following table for pre-certified equipment.~~

Generation System Size	Engineering Study Maximum Costs
<20kW	\$0
20kW—100kW	\$500
100kW—250kW	\$1000
>250kW or not pre-certified equipment	Actual costs

- a) General scope of the engineering studies required.
- b) Estimated cost of the engineering studies.
- c) Estimated duration of the engineering studies.
- d) Additional information required to allow the completion of the engineering studies.

(Continued on Sheet No. 10-95)

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**DISTRIBUTED GENERATION STANDARD
INTERCONNECTION AND POWER PURCHASE TARIFF
(Continued)**

Section No. 10
~~Original~~ 1st Revised Sheet No. 94

- e) Study authorization agreement.
- 4) Comments on the schedule provided.
- 5) If the rules of MISO (Midwest Independent System Operator) require that this interconnection request be processed through the MISO process, the Generation Interconnection Coordinator will notify the Applicant that the generation system is not eligible for review through the State of Minnesota process.

(Continued on Sheet No. 10-95)

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MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

**DISTRIBUTED GENERATION STANDARD
 INTERCONNECTION AND POWER PURCHASE TARIFF
 (Continued)**

Section No. 10
~~Original~~1st Revised Sheet No. 95

Process for Interconnection (Continued)

Step 3 Go - No Go Decision for Engineering Studies (By Applicant)

In this step, the Applicant will decide whether or not to proceed with the required engineering studies for the proposed generation interconnection. If no specialized engineering studies are required by Xcel Energy, Xcel Energy and the Applicant will automatically skip this step.

If the Applicant decides NOT to proceed with the engineering studies, the Applicant shall notify the Generation Interconnection Coordinator, so other generation interconnection requests in the queue are not adversely impacted. Should the Applicant decide to proceed, the Applicant shall provide the following to the Generation Interconnection Coordinator:

- 1) Payment, if required by Xcel Energy for the specialized engineering studies for the categories indicated in the fee table on Sheet No. 10-93.
- 2) Additional information requested by Xcel Energy to allow completion of the engineering studies.

N
N

Step 4 Engineering Studies (By Xcel Energy)

In this step, Xcel Energy will be completing the specialized engineering studies for the proposed generation interconnection, as outlined in Step 2. These studies should be completed in the time frame provided in step 2, by Xcel Energy. It is expected that Xcel Energy shall make all reasonable efforts to complete the Engineering Studies within the time frames shown below. If additional time is required to complete the engineering studies the Generation Interconnection Coordinator shall notify the Applicant and provide the reasons for the time extension. Upon receipt of written notice to proceed, payment of applicable fee, and receipt of all engineering study information requested by Xcel Energy in step 2, Xcel Energy shall initiate the engineering studies.

Generation System Size	Engineering Study Completion
<20kW	20 working days
20kW – 250kW	30 working days
250kW – 1MW	40 working days
> 1MW	90 working days

Once it is known by Xcel Energy that the ~~scope of the project has changed, actual costs for the engineering studies will exceed the estimated amount by more the 25%,~~ then the Applicant shall be notified. Xcel Energy shall then provide ~~the reason(s) for the studies needing to exceed the original estimated amount and provide~~ an updated firm cost estimate ~~of the total cost~~ for the engineering studies. The Applicant shall be given the option of either withdrawing the application and having any unspent fees refunded, or paying the additional estimated amount to continue with the engineering studies.

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(Continued on Sheet No. 10-96)

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