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May 18, 2009

Ms. Patricia Van Gerpen, Executive Director  
South Dakota Public Utilities Commission  
State Capitol Building  
500 East Capitol Avenue  
Pierre, South Dakota 57501-5070

Re: RM08-002 - In the Matter of the Adoption of Rules Regarding PURPA  
Interconnection.

Dear Ms. Van Gerpen:

Xcel Energy appreciates the coordination and leadership provided by Commission Staff throughout this rule making process.

Following are Xcel Energy comments that we believe may improve the proposed small generator interconnection standards being considered in Docket RM08-002 and in the new South Dakota Administrative Rules Section 20:10:36.

If anyone has any questions, please call me at 339-8350

Sincerely,

A handwritten signature in black ink that reads 'J Wilcox'.

Jim Wilcox

c. Judy Pofert

**BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF SOUTH DAKOTA**

IN THE MATTER OF THE	)	RM08-002
ADOPTION OF RULES REGARDING	)	
PURPA INTERCONNECTION	)	<b>COMMENTS OF</b>
	)	<b>XCEL ENERGY</b>

Following are the comments by Northern States Power Company, a Minnesota corporation (“Xcel Energy” or “the Company”) operating in South Dakota in the matter of the proposed rules filed by Commission Staff, as follows:

**Comment #1 – Suggestion - Under 20:10:36:15 Isolation Device**

Despite the fact that we do not practice the requirement of a separate visible disconnect switch for small DGs of 10 kW or less in Colorado, Xcel Energy still strongly believes that a disconnect switch for all small generator interconnection facility interconnections is necessary. We understand that the expense of an isolation device is significant to the small DG facility, however Xcel Energy feels a duty to err on the side of safety for our field personnel and for the DG owner. Use of the meter as an isolation device poses “flash” risks that a true disconnection switch would not allow.

The Company practices an “always live” philosophy in that when field personnel are attempting to restore service following an outage, our personnel never assume that any high voltage distribution power line is de-energized. The specific circumstance that the Company is troubled about in this instance is the situation when the DG is “acting up.” That, for example, when we have received a voltage or harmonics complaint from a neighboring customer and in tracking down that problem the service person identifies that the problem is emanating from a DG installation. Should the DG be producing the limit of tier 1, a power production level of 10 kW or less, the current flow through the meter would be sufficient to risk a flashover incident causing a safety hazard to our employee.

Further, Xcel Energy believes that this issue has a customer satisfaction component to it as when the DG is “behind the house” meter and the customer’s house meter is used as a disconnect device, all power to the customer’s home is interrupted when the DG is disconnected bringing outage dissatisfaction concerns to the customer as well.

We propose striking the second sentence of proposed rule 20:10:36:15 as depicted below:

**20:10:36:15. Isolation device.** A small generator facility qualifying for interconnection under tier 2, tier 3, or tier 4 interconnection review procedures must be capable of being isolated from the public utility. ~~For a small generator facility qualifying for tier 1 interconnection review procedures, the meter base may serve as the required isolation device, provided it is readily accessible by the public utility.~~

Comment #2 – Concern – Under 20:10:36:24 Interconnection facilities deposit. Xcel Energy believes that the numbers 25% and \$10,000 are too low for larger DGs. For large DGs, Xcel Energy does not believe that our customers ought to bear the burden of risk for the up front costs. That the larger DGs may cause the Company to incur up to hundreds of thousands of dollars of expenses that will ultimately be reimbursed to the Company, but that a 25% deposit or a \$10,000 deposit is not enough to protect the Company and its customers from the risk that the DG will not follow through and complete the project and provide reimbursement. Further, our historic practice with large customers who require significant system improvements by the power company is to require a 100% deposit of the estimated costs up front. We are not sure why we should distinguish a large DG from a large customer in this sense.

**20:10:36:24. Interconnection facilities deposit.** The public utility may require a deposit of no more than 25% of the estimated costs for interconnection facilities necessary to complete an interconnection to the EDS. However, the deposit may not exceed \$10,000 for small generator facilities proposing to interconnect two megawatts or less. The deposit shall be paid in advance by the applicant for facilities necessary to complete an interconnection to the EDS.

Comment #3 – Suggestion – Under 20:10:36:42 Tier 3 Interconnection, Xcel Energy believes that the 10MW threshold is too high. That 2 MW would be a better level. We believe that DG levels greater than 2 MW constitute a “major” installation that distribution feeders will often not be able to tolerate. That we believe that the Tier 3 requirements allows the DG to pass through several “screens” resulting in operational problems that would be caught by the Tier 4 process. That Tier 4 requires the engineering studies to be performed up front and that any DG over 2 MW should be subject to ‘before the fact’ study work.

We suggest amending the proposed rule 20:10:36:42 to reflect Tier 3 to begin at 2 MW rather than at 10 MW as follows:

**20:10:36:42. Tier 3 interconnection.** The public utility shall use the tier 3 interconnection review procedures for an application that does not qualify for tier 1 or tier 2 review and meets the following requirements:

- (1) The small generator facility has an electric nameplate capacity rating of ~~10~~ 2 megawatts or less;
- (2) The proposed point of interconnection is not to a transmission line; and
- (3) The small generator facility does not export power beyond the point of interconnection and utilizes low forward power relays or other protection functions that prevent power flow onto the EDS.

Comment #4 – Suggestion – Under 20:10:36:55 Tier 4 Interconnection system impact study

That the word “shall” in the third paragraph under this section (first full paragraph on the top of page 54) should be softened to the use of the word “may.” That the study work determined to be done should be the result of a negotiation between the Company and the DG and that under circumstances when all of the study work listed is not required, we would appreciate the flexibility of not having to perform unnecessary study work.

**20:10:36:55. Tier 4 interconnection system impact study.** The public utility shall commence the interconnection system impact study upon receipt of an executed interconnection system impact study agreement and study deposit. The study shall be completed within the timeline agreed to between the parties at the scoping meeting or interconnection feasibility study results meeting. The study must evaluate the adverse system impacts identified in the interconnection feasibility study, and study other potential impacts including, but not limited to, those identified in the feasibility study results meeting or scoping meeting.

The study shall consider all generating facilities that, on the date the interconnection system impact study is commenced, are directly interconnected with the public utility's system, have a pending higher queue position to interconnect to the system, or have a signed interconnection agreement.

At a minimum, the study shall may include a short circuit analysis, a stability analysis, a power flow analysis, voltage drop and flicker studies, protection and set point coordination studies, and grounding reviews.

Finally, Xcel Energy appreciates the Staff's position on proposed rule 20:10:36:55 Monitoring as they have described in their response to this matter dated May 8, 2009. As more DGs are interconnected to the system, monitoring of these generators for frequency control and load balancing management will become more and more important.

In conclusion, Xcel Energy appreciates the thoughtful process that Staff has enabled throughout this proceeding.

Respectfully submitted this 18<sup>th</sup> day of May, 2009

Northern States Power Company d/b/a Xcel Energy



By:  
Jim Wilcox, Manager Governmental Affairs