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December 21, 2012

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

Re: Annual Report
Consideration of the new PURPA standards
Docket No. EL08-028

Dear Ms. Van Gerpen:
Northern States Power Company, a Minnesota Corporation operating in South Dakota, respectfully submits this final annual report to the South Dakota Public Utilities Commission pursuant to the Commission's December 18, 2009 Order issued in this Docket ("Order").

This Report addresses the requirements of the Order which directed the following:

> *Each electric utility shall file an annual report with the Commission that sets forth (1) smart grid deployment opportunities, (2) why or why not deployment was made, (3) the extent of the deployment, (4) possible deployments that could be made in the forthcoming year, and (5) what considerations will determine whether or not smart grid applications will be deployed, including costs and potential cost savings of deployment. The first report is due December 31, 2010 and the last report is due December 31, 2012.*

SMART GRID ANNUAL REPORT

Smart Grid is the integration of a communications network with electrical equipment, resulting in overall improved management capabilities for the distribution system, and potentially the transmission system. Our approach to Smart Grid is to learn from the current deployments both internal to the Company and within the industry, and implement Smart Grid initiatives at the "pace of value" to our customers and operations.

We provide our response to the Order items below.

1) Smart Grid deployment opportunities.

The Company highlights the following four Smart Grid technologies for implementation:

- *Intelliteam Switches.* The Company continues to roll out switches that automatically sectionalize portions of distribution feeders. When an Intelliteam device senses a fault on the system, it quickly determines whether the fault persists, and if so, sends signals to other Intelliteam switches in order to reroute and restore service to the customers on the feeder. This reduces the numbers of customers interrupted and the duration of the interruption. Ultimately this technology may allow us to develop a "self healing" grid where excess capacity from an adjacent section of the power system or any alternate conventional, renewable, distributed energy source or energy storage device could be used to rapidly restore service to sections of the power system.
- *Remote Fault Indicators.* These indicators sense fault current and report this information to our dispatch center using cell phone technology. This knowledge increases our efficiency in dispatching repair crews and ultimately helps reduce the length of the outage. This technology is being implemented as needed on feeders in South Dakota where we have had difficult outage diagnoses.
- *SmartVAR.* Our SmartVAR program provides two-way control technology for managing distribution system capacitors. Capacitors help us to manage the voltage levels on the power system, and are generally operated locally by field crews.
- *Network Management System ("NMS").* The Company upgraded its OMS in 2012 and the new system is termed a Network Management System ("NMS"). The upgrade implements the following two functional enhancements that support Smart Grid capabilities:

    - The ability to "ping" Cellnet-equipped electric meters to verify line-side service, and receive "last gasp" messages, which Cellnet-equipped electric meters send out when the power supply is disrupted. This data gives us a more complete picture of an outage event's impact, furthering our ability to understand the scope and scale of outage events. It also aids in prioritizing outage events, making more informed work assignments based on the prioritization, and reducing the number of "okay on arrival" service calls by first verifying line-side power.

- Enhanced integration to the Energy Management/Supervisory Control and Data Acquisition ("EMS" or "SCADA") system to perform monitoring of breakers. This permits the Company to detect outages prior to getting customer notification, and to positively determine that an outage has occurred, resulting in quicker outage response time.

2) Why or why not deployment was made.

Xcel Energy's Smart Grid strategy is to deploy technologies as they deliver cost effective value to our customers, and in the case of fault detection, on an as-needed basis. Each of the four technologies identified above have demonstrated both operational and customer value in portions of the Xcel Energy system, and we will expand their deployment as appropriate.

3) The extent of the deployment.

The Company currently has 10 Intelliteam automated switches and four remote fault indicators installed on our 34.5 kV distribution system in South Dakota. In addition, aside from the few meters of our largest commercial customers which are read via a hand held probe system, 100 percent of our South Dakota meters have been automated, transmitting customer electric usage information through a fixed, wireless communications technology. Further, the NMS system now is able to provide information from nearly all of our meters in South Dakota on an ad hoc basis.

4) Possible deployments that could be made in the forthcoming year.

The Company continues to review the feasibility of installing additional Intelliteam switch locations in South Dakota, but we do not yet have a firm 2013 implementation plan. The Company is also evaluating the potential for adding remote fault indicators to our SD system in 2013. In addition, we continue to evaluate deployment of other Smart Grid technologies, but do not anticipate additional deployment of other technologies in 2013.

5) What considerations will determine whether or not smart grid applications will be deployed, including costs and potential cost savings of deployment?

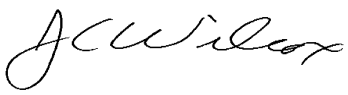
As noted above, each application of Smart Grid technology must prove that it provides a positive cost/benefit ratio. We intend to continue to maintain our

awareness of new products and technologies, and to continually study the possible application and benefits of new technologies.

Xcel Energy appreciates the opportunity to provide this Smart Grid report. Please let me know of any additional information that we can provide.

Thank you.

Sincerely,



Jim Wilcox