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Direct Testimony and Schedules  
Kurtis J. Haeger

Before the North Dakota Public Service Commission  
State of North Dakota

In the Matter of the Application of  
Northern States Power Company, a Minnesota Corporation  
for Advance Determination of Prudence for a  
200 MW Prairie Rose Wind Generation Project and  
Power Purchase Agreement with Geronimo Wind Energy, LLC

Case No. PU-12-059  
Exhibit\_\_\_\_(KJH-1)

**Resource Planning**



## Table of Contents

I.	Introduction and Qualifications	1
II.	North Dakota Wind Generation Commitment	2
III.	Selection of the Prairie Rose PPA	5
IV.	Competitiveness of North Dakota Wind Generation	8
V.	Reasonableness of Wind Generation	11
VI.	Reasonableness and Benefits of the Prairie Rose PPA	13
VII.	Update on the Prairie Rose Proceedings at FERC	17
VIII.	Conclusion	19

## Schedules

Resume

Schedule 1

1 I. INTRODUCTION AND QUALIFICATIONS

2  
3 Q. PLEASE STATE YOUR NAME AND OCCUPATION.

4 A. My name is Kurtis J. Haeger. I am Managing Director of Resource Planning  
5 for Xcel Energy Services Inc., which supports all of Xcel Energy Inc.'s utility  
6 operating companies, including Northern States Power Company ("Xcel  
7 Energy" or the "Company").

8  
9 Q. PLEASE DESCRIBE YOUR QUALIFICATIONS AND EXPERIENCE.

10 A. I have been involved in the utility industry for 30 years, in the areas of Gas  
11 Engineering, Gas Acquisition and Planning, and Electric Resource Planning.  
12 In my current role, I am responsible for the direction and oversight of  
13 developing and implementing the Electric Resource Plans for all of Xcel  
14 Energy Inc.'s utility operating companies. My resume is provided as  
15 Exhibit\_\_(KJH-1), Schedule 1.

16  
17 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

18 A. I provide support for the reasonableness of the Power Purchase Agreement  
19 ("PPA") with Prairie Rose Wind, LLC ("Prairie Rose"). In my testimony, I:

- 20 • Discuss the Company's extensive efforts to fulfill our commitment to  
21 obtain 200 MW of wind generation located in North Dakota at  
22 reasonable costs;
- 23 • Explain how the Prairie Rose PPA was selected from an objective,  
24 competitive bidding process;
- 25 • Address the ability of North Dakota wind generation to compete for  
26 selection as a low-cost renewable generation resource;

- 1           • Support the reasonableness of the Prairie Rose PPA and the benefits  
2           provided to our customers through this purchase;
- 3           • Address the ability of wind generation to be a reasonable generation  
4           source for meeting customers' needs independent of renewable energy  
5           standard requirements; and
- 6           • Provide an update on the Federal Energy Regulatory Commission  
7           ("FERC") regulatory proceedings related to the Prairie Rose project.

8  
9           **II. COMMITMENT TO OBTAIN WIND GENERATION**  
10           **IN NORTH DAKOTA**

11  
12   Q.   Ms. McCARTEN GENERALLY DESCRIBED THE COMPANY'S EFFORTS TO SECURE  
13       200 MW OF WIND GENERATION IN NORTH DAKOTA. CAN YOU ELABORATE  
14       FURTHER ON THE COMPANY'S EFFORTS?

15   A.   Yes. In late 2007, shortly after the Company announced its commitment to  
16       acquire 200 MW of wind in North Dakota, NSP issued a Request For  
17       Proposals ("RFP") for wind development including, projects located in North  
18       Dakota. In the Spring of 2008 the Company short-listed various bids and  
19       began negotiating with the developers of those projects. After approximately  
20       six months, in October 2008, the Company agreed to develop the Merricourt  
21       Wind Project ("Merricourt"), a 150 MW wind farm located in North Dakota.  
22       In 2009, the Company received an Advance Determination of Prudence  
23       ("ADP") from the Commission for Merricourt. The Merricourt project  
24       represented 150 MW of our 200 MW wind generation commitment for North  
25       Dakota. The Merricourt Wind Project was to be constructed on a "turn key"  
26       basis by enXco Development Corporation ("enXco"), with the Company  
27       owning and operating a wind farm to be constructed by enXco. On April 1,

1 2011, the Company terminated its contracts with enXco for the development  
2 of Merricourt.

3  
4 Q. WHY DID THE COMPANY DECIDE TO TERMINAE THE MERRICOURT PROJECT?

5 A. The agreements the Company had with enXco included several conditions  
6 that enXco was required to fulfill as part of its project development  
7 obligations. Termination rights existed if these conditions were not satisfied  
8 by March 31, 2011. In the Company's view, by March 31, 2011, enXco had  
9 failed to satisfy particular conditions that could threaten the operation of the  
10 proposed plant. Accordingly, on April 1, 2011, the Company terminated its  
11 contracts with enXco. The Company submitted a letter dated April 8, 2011 to  
12 the Commission in Case Nos. PU-08-908, 08-910, 10-657, and 11-55  
13 describing the reasons for our decision to terminate the agreements with  
14 enXco related to the Merricourt project.

15  
16 Q. ALTHOUGH THE COMPANY DECIDED TO TERMINATE THE DEVELOPMENT OF  
17 MERRICOURT, DID IT TRY TO RESOLVE ITS DISAGREEMENTS WITH ENXCO?

18 A. Yes. We undertook extensive efforts to reach a beneficial resolution for our  
19 customers. These efforts were overseen by a magistrate and included offers  
20 from the Company for a power purchase agreement under which enXco, as  
21 owner of the project, would have assumed operational risks of the project.  
22 However, despite significant efforts, the parties were not able to reach an  
23 agreement on terms of a PPA. While we were open to resolutions, we would  
24 only consider approaches that would be in the best interests of our customers,  
25 and such a resolution could not be reached.

26

1 Q. DID THE COMPANY CONTINUE TO PURSUE OTHER WIND PROJECTS IN NORTH  
2 DAKOTA AS IT ATTEMPTED TO RESOLVE THE MERRICOURT ISSUES?

3 A. Yes. Once the Merricourt Project was terminated, the Company determined  
4 that it should attempt to try to address its commitment in North Dakota by  
5 developing another wind project that could be completed by the end of 2012.  
6 The expiration of federal production tax credit (“PTC”) at the end of 2012  
7 made it imperative to move quickly on another wind project if it were going to  
8 be eligible for the significant federal incentive. Given those circumstances,  
9 there was a unique opportunity to procure low-cost wind generation  
10 from developers who were eager to enter into agreements that would allow  
11 their projects to qualify for PTCs. However, in order to meet the 2012  
12 deadline, tight construction lead times were required, which in turn required  
13 agreements to be finalized and Commission approval to be sought quickly.  
14 Thus, we chose to use pricing data received in our 2010 RFP and our general  
15 knowledge of the wind power market to pursue proposals. After discussions  
16 with a number of potential projects, Border Winds was selected as the best  
17 project candidate in North Dakota with which to proceed into definitive  
18 negotiations.

19  
20 Q. PLEASE SUMMARIZE THE NEGOTIATIONS UNDERTAKEN IN AN EFFORT TO  
21 REACH AN AGREEMENT.

22 A. The negotiations were lengthy and complex due to: (1) the unique nature of  
23 the transaction and the change in developer that occurred during negotiations;  
24 (2) the risk related to PTC expiration at the end of 2012; (3) a change in the  
25 wind turbine supplier during the course of negotiations; and (4) the scope of  
26 interconnection costs to be borne by the developer.

27

1 Q. WHAT WAS THE RESULT OF THE NEGOTIATIONS?

2 A. The Company diligently negotiated in good faith and with a clear goal to  
3 obtain a cost-effective agreement that would be beneficial to our customers.  
4 These negotiations went on until December 2011, when we were informed  
5 that the turbines intended to be used for the project had been sold to another  
6 developer.

7

8 **III. SELECTION OF THE PRAIRIE ROSE PPA**

9

10 Q. HOW WAS THE PRAIRIE ROSE PPA SELECTED?

11 A. As noted in the Company's Application, on September 16, 2010, the Company  
12 issued the 2010 RFP for up to 250 MW of wind generation. The Prairie Rose  
13 project was selected as the most advantageous resource offered in the 2010  
14 RFP.

15

16 Q. PLEASE DESCRIBE THE 2010 RFP PROCESS.

17 A. Our 2010 bid process and criteria were similar to other RFPs that we have  
18 issued in recent years. The Company issued a press release providing a link to  
19 the RFP and related documents on the Company's website. Bidders were  
20 encouraged to e-mail questions or call the designated point of contact for the  
21 RFP prior to the submission of their proposals. The RFP specified that bids  
22 were due October 15, 2010, by 5:00 PM. The Company indicated the RFP  
23 was open to proposals of any size up to 250 MW and was open to all types of  
24 ownership structures, including power purchase agreements from independent  
25 power producers, projects proposing Company ownership of the assets, or any  
26 combination thereof. The Company imposed no limitation on the location of  
27 wind projects, but rather specified that power had to be delivered to the MISO

1 footprint beginning no later than December 31, 2012, in order to qualify for  
2 the PTC.

3  
4 Q. HOW MANY BIDS WERE RECEIVED IN RESPONSE TO THE 2010 RFP?

5 A. By the submittal deadline, Xcel Energy had received 143 proposals on 106  
6 sites comprising 9,189 MW of distinct resources. Approximately 63 percent of  
7 the capacity offered was in the form of PPA proposals and the remainder  
8 proposed Company asset ownership. Many projects contained PPA and  
9 ownership options and multiple variations. Proposed project sites were  
10 located in Minnesota, North Dakota, South Dakota, Iowa, Illinois, Indiana,  
11 and Montana.

12  
13 Q. HOW WERE THE BIDS EVALUATED BY THE COMPANY?

14 A. The proposals were initially separated into two groups: PPAs and Xcel Energy  
15 ownership proposals. The PPA proposals were ranked by levelized equivalent  
16 price, ranging from [BEGIN TRADE SECRET

17 END TRADE SECRET]. The Company focused its  
18 evaluation of PPA proposals priced under [BEGIN TRADE SECRET  
19 END TRADE SECRET] on a 20-year levelized basis.

20 Since the types of proposals offered for Xcel Energy ownership varied widely  
21 and there was a broader spectrum of risks to be considered when assessing the  
22 value of ownership proposals, the ownership options were evaluated more on  
23 an individual project basis.

24  
25 The Company's evaluation of the PPAs and utility-ownership proposals was  
26 based on a number of criteria including price, curtailment risk (both frequency  
27 and duration), interconnection and transmission network requirements, costs,

1 and the ability to complete the proposed project by the end of 2012. The  
2 Company then prepared and issued clarification questions to further  
3 differentiate which projects were in the best position to move forward in a  
4 timely manner.

5  
6 Q. WHAT WAS THE RESULT OF THE EVALUATION OF BIDS RECEIVED IN THE 2010  
7 RFP?

8 A. A short list of six proposals was developed (see Table 1 of our ADP  
9 Application). After completion of due diligence review and initial discussions  
10 with the six short listed projects, the Company selected the 200 MW Prairie  
11 Rose Wind, LLC Project as the best candidate with which to proceed into  
12 definitive negotiations. Prairie Rose was the lowest cost, most viable proposal.  
13 As indicated in Table 1, all the short list proposals fell in a narrow price range.  
14 However, final negotiations resulted in the selection of the Prairie Rose project  
15 as the best available option for our customers. The final negotiated price for  
16 the Prairie Rose project is [BEGIN TRADE SECRET  
17 END TRADE SECRET] in year one of the 20-year PPA  
18 and [BEGIN TRADE SECRET END TRADE  
19 SECRET] on a levelized basis over the life of the contract.

20  
21 Q. WHY WAS A RFP USED VERSUS NEGOTIATING WITH A DEVELOPER DIRECTLY?

22 A. Under normal circumstances, allowing competition of potential developers  
23 through a transparent, objective bidding process will result in the lowest-cost,  
24 most viable bids. Through the process, developers are naturally encouraged to  
25 provide their best offers for the evaluation process. Lower prices for viable  
26 resource procurement options are inherently beneficial for our customers.  
27 Thus, the RFP process is an efficient way to gain widespread input from the

1 industry on various project proposals in a short amount of time. Once the  
2 Company screens the bids initially offered in the bid process, in depth  
3 discussions begin with those bidders that offered the best prices proposals.  
4

5 Q. IN YOUR OPINION, WAS THE 2010 RFP CONDUCTED BY THE COMPANY  
6 CONSISTENT WITH HOW COMPETITIVE BIDDING PROCESSES ARE UNDERTAKEN  
7 IN THE UTILITY INDUSTRY?

8 A. Yes, it was.  
9

10 **IV. COMPETITIVENESS OF NORTH DAKOTA**  
11 **WIND GENERATION**  
12

13 Q. DID THE 2010 RFP RESULT IN A PREFERENCE FOR RESOURCES LOCATED IN  
14 ANY PARTICULAR STATE OR REGION?

15 A. No. In fact, a proposed project submitted in response to our RFP does not  
16 even need to be located in a state within our service territory. Proposed  
17 project sites were located in multiple jurisdictions as mentioned above. The  
18 diversity in the bids received highlights the transparent, objective, and fair  
19 nature of the RFP as bidders would be reluctant to provide bids into RFPs  
20 they expected to be biased.  
21

22 Q. IS NORTH DAKOTA WIND GENERATION CONSIDERED A GOOD WIND  
23 RESOURCE AND COMPETATIVE WITH OTHER WIND REGIONS IN THE AREA?

24 A. Yes. North Dakota has both high wind turbine capacity factors and very  
25 competitive pricing. However, the interconnection point of a wind project  
26 along with the delivery of the wind energy to the market can have a significant  
27 impact on the timing and economics of a wind project. This is true for all

1 wind projects, not only those located in North Dakota. For example, portions  
2 of North Dakota fall within the footprint of the MISO, and other portions of  
3 North Dakota are outside MISO. If a wind developer chooses to locate its  
4 project outside of MISO's footprint and wants to deliver wind generation into  
5 the MISO footprint (where the Company's loads are located), it will incur a  
6 transmission charge "pancake" which must be paid to the transmission owner  
7 where the project will interconnect, in addition to the MISO network  
8 transmission charge the Company incurs for service within MISO. The  
9 pancaked charge will presumably be included in whatever price the developer  
10 would offer into the Company's RFP, and based on our experience, would add  
11 \$10 to \$11 per MWh to the bid price. The additional transmission cost would  
12 place these developers at a disadvantage in comparison to a wind generation  
13 resource located within the MISO footprint that is not subject to a pancaked  
14 charge. However, the decision of where to place wind generation is up to the  
15 developer and not within the control of Xcel Energy.

16  
17 Q. EXPLAIN HOW TRANSMISSION SYSTEM UPGRADE COSTS CAN CREATE A  
18 DISADVANTAGE FOR A WIND PROJECT DUE TO ITS LOCATION?

19 A. If a wind generation developer chooses to locate its project in a highly  
20 congested area, then it may incur higher transmission system "network  
21 upgrade" costs to interconnect to the transmission system. MISO  
22 independently administers the generation interconnection process and  
23 conducts the studies that determine the network upgrades required to  
24 interconnect an individual proposed generation project. Transmission  
25 congestion, however, exists independent of the state boundaries of North  
26 Dakota.

27

1 Q. ARE ANY TRANSMISSION INFRASTRUCTURE EXPANSIONS EXPECTED TO  
2 PROVIDE MORE TRANSMISSION CAPACITY IN NORTH DAKOTA?

3 A. Yes. As the Commission is aware, the Company along with other companies  
4 including Otter Tail Power Company (“Otter Tail”) are engaged in the  
5 development of several CapX2020 transmission projects that will directly or  
6 indirectly improve transmission capacity in North Dakota. The CapX2020  
7 projects that will benefit North Dakota are the 250 mile-long, 345 kV  
8 transmission line between Fargo, North Dakota and the Twin Cities  
9 Minnesota (the “Fargo Project”) along with the 250 mile-long, 345 kV line  
10 between Brookings South Dakota and the Twin Cities (the “Brookings”  
11 Project). The Commission provided an ADP for these projects in Case Nos.  
12 PU-09-676 and 09-678. The Fargo and Brookings projects are scheduled to  
13 go into service around 2015.

14

15 As part of the MISO multi-value projects, Otter Tail and MDU will develop a  
16 345 kV line connecting Otter Tail’s Big Stone substation and MDU’s North  
17 Dakota Ellendale substation. The Big Stone-Ellendale line will require  
18 approximately 145 miles of new 345 kV transmission lines along with a new  
19 345kV terminal and 345/230 kV, 500 MVA transformer at Ellendale. The  
20 project is expected to be implemented in 2019. In addition, Otter Tail Power  
21 and Xcel Energy will develop a 345 kV line connecting Otter Tail’s Big Stone  
22 and Xcel Energy’s Brookings County substations. The Big Stone-Brookings  
23 County line will require approximately 65 miles of new 345 kV double circuit  
24 transmission lines along with a new 345kV terminal and two 345/230 kV, 672  
25 MVA transformers at Big Stone. The combination of the Ellendale-Big Stone,  
26 the Big Stone-Brookings County, and the CapX2020 Brookings County-Twin

1 Cites 345 kV lines will add additional transmission capacity between North  
2 Dakota and the Company's Twin Cities load centers.

3  
4 Finally, a significant number of regional transmission facilities are being  
5 developed which will have a positive impact on North Dakota transmission  
6 outlet and will open up more markets for North Dakota wind generation.  
7 These projects include the ones listed above, along with the CapX2020 Twin  
8 Cities-LaCrosse 345 kV line, the Lakefield-Mitchell County 345 kV line, and  
9 the Dubuque-Spring Green (Iowa-Wisconsin) and La Crosse-Spring Green-W  
10 Middleton 345 kV (La Crosse-Madison) projects, which were all approved in  
11 the December 2011 MISO Transmission Expansion Plan ("MTEP")  
12

13 **V. BENEFITS OF WIND GENERATION IN GENERAL**

14  
15 Q. IS WIND GENERATION A COST-EFFECTIVE GENERATION RESOURCE?

16 A. Yes. Although wind generation has been installed on our system in response  
17 to initiatives of various states in which we serve, wind generation has proven  
18 to be a cost-effective energy resource for all of our customers. In 2007, for  
19 example, the average cost of wind on our system was \$34.42/MWh, while the  
20 average MISO energy market price was roughly \$53.33/MWh. Without the  
21 wind in our portfolio all of our customers, including those in North Dakota,  
22 would have paid higher costs for their energy.  
23

24 Q. CAN YOU EXPLAIN THE ABILITY OF WIND GENERATION TO DISPLACE COAL,  
25 NATURAL GAS, AND MISO MARKET ENERGY, AND WHY THAT IS BENEFICIAL  
26 FOR CUSTOMERS?

1 A. Because wind generation is first in the sequence of dispatching our generation  
2 fleet, other thermal generation is displaced when wind projects are generating  
3 power. Thus, when the wind is blowing the power generated by that wind will  
4 likely displace coal, under low load and high wind conditions, or natural gas  
5 and other market purchases under all of the other market conditions. By  
6 displacing generation from thermal units or by reducing other purchased  
7 power requirements, wind projects create an economic benefit to our  
8 customers.

9

10 Q. DOES WIND GENERATION HAVE THE ABILITY TO DISPLACE CAPACITY  
11 ADDITIONS?

12 A. Yes. In general a wind resource provides a capacity benefit to our system, but  
13 because of its intermittency and lack of dispatchability, the wind resource  
14 cannot be accredited with its maximum generating capacity. Instead, a  
15 capacity credit is prescribed to the wind resource that is approximately 12  
16 percent of its nameplate rating. For our entire portfolio, approaching 2,000  
17 MW of wind generation, the capacity benefit is in excess of 240 MW. This has  
18 allowed the Company to avoid significant investment in additional natural gas  
19 fired resources.

20

21 Q. HOW DOES WIND GENERATION FARE IN LIGHT OF TODAY'S LOWER NATURAL  
22 GAS COMMODITY PRICES?

23 A. The natural gas market has undergone a major transformation with the surge  
24 of shale gas exploration and production. With this significant increase in gas  
25 production, natural gas prices have dropped to near record lows. This has  
26 translated into lower costs for electric generation from gas-fired generation.  
27 As we explained in our PPA ADP Application, in order to compete with lower

1 gas prices, the market price for new wind generation has also dropped  
2 significantly. In particular, for our 2010 RFP, the market forces from the  
3 lower natural gas generation alternatives advantageously impacted the number,  
4 variety and pricing of the wind proposals offered. Thus, lower gas prices, plus  
5 the desire of developers to get additional projects on-line before the expiration  
6 of PTC at the end of 2012, resulted in substantially lower wind generation cost  
7 bids than we have seen historically.

8  
9 **VI. REASONABLENESS AND BENEFITS**  
10 **OF THE PRARIE ROSE PPA**

11  
12 Q. WHAT WAS THE FINAL PRICE NEGOTIATED FOR THE PRAIRIE ROSE PPA?

13 A. Our final negotiated price for the Prairie Rose project is [BEGIN TRADE  
14 SECRET END TRADE SECRET] in year one of the 20-  
15 year PPA (2013) and [BEGIN TRADE SECRET END  
16 TRADE SECRET] on a levelized basis over the life of the contract.

17  
18 Q. HOW DOES THE PRAIRIE ROSE WIND PROJECT PROPOSE TO INTERCONNECT  
19 WITH THE TRANSMISSION SYSTEM?

20 A. The Prairie Rose project is somewhat unusual since the project proposes to  
21 use a net zero interconnection. An NZI allows the wind project and another  
22 dispatchable thermal generator to share the transmission interconnection  
23 facilities. Since the two resources cannot operate at a combined level that  
24 exceeds the authorized capacity of the thermal generator, no additional  
25 capacity credit is allowed for the NZI wind project. As a result, Prairie Rose  
26 will not qualify for an additional capacity credit until the Company can arrange

1 for a request to be submitted to MISO for a more conventional non-NZI  
2 interconnection.

3  
4 Q. WHAT ASSUMPTION WAS MADE REGARDING THE ACCREDITED CAPACITY FOR  
5 THE PROJECT IN THE STRATEGIST ANALYSIS?

6 A. The Strategist modeling presented in our Application assumed that the project  
7 would receive the 12 percent accreditation, as was prescribed by MISO at the  
8 time of the filing. Although Prairie Rose was submitted as a NZI project, our  
9 analysis assumed that the completion of the CapX2020 projects would create  
10 enough transmission capacity to potentially move the Prairie Rose project  
11 from an NZI to a conventional transmission interconnection status, thus  
12 providing a capacity credit.

13  
14 Q. IF THE CAPACITY CREDIT ASSUMPTION WERE REMOVED WHAT WOULD BE THE  
15 IMPACT OF THE PRAIRIE ROSE PPA ON THE PRESENT VALUE OF REVENUE  
16 REQUIREMENT RESULTS (“PVRR”)?

17 A. Removing the accredited capacity would add \$18 million to the net cost of the  
18 project. Our original analysis estimated that the project was approximately  
19 breakeven with a net PVRR impact of \$5 million. The PVRR impact would  
20 increase to \$23 million if the accredited capacity was removed from the model.  
21 Given that the total net present value (“NPV”) of the PPA is \$280 million, the  
22 additional \$18 million in PVRR impact represents only 6 percent of the  
23 relative contract value.

24  
25 Q. IF THE PROJECT WERE TO CONTINUE NOT TO BE GIVEN A CAPACITY CREDIT  
26 UNTIL THE END OF THE PPA, WOULD YOU STILL CONSIDER THE PROJECT TO  
27 BENEFIT CUSTOMERS?

1 A. Yes. First, the resulting increase in PVRR does not alter the fact that the  
2 Prairie Rose PPA was the best option of the six short-listed bids listed in  
3 Table 1 of our Application. In addition, we tend to take a fairly conservative  
4 approach when performing our Strategist analysis by not necessarily including  
5 all of the potential benefits that may be realized by the project over the 20-year  
6 PPA.

7

8 Q. CAN YOU ELABORATE ON SOME OF THE CONSERVATIVE ASSUMPTIONS THAT  
9 WERE USED IN THE STRATEGIST MODELING?

10 A. When evaluating the impact of wind generation, we add an integration cost to  
11 wind projects being analyzed in the model to account for additional ancillary  
12 services that are necessary to integrate the variable nature of the wind  
13 generation. The most current wind integration study, and the one we relied  
14 upon in our analysis, was performed in 2006. While we believe the  
15 methodology was sound, the model assumed gas prices would climb to  
16 \$9/MMBtu by 2020. Our most recent long range natural gas price forecast  
17 indicates a gas price closer to \$6/MMBtu in 2020. Because gas prices are the  
18 primary driver of ancillary service costs associated with integrating wind  
19 generation, it is likely that the integration costs based on a \$9/MMBtu gas  
20 price unfairly penalizes the Prairie Rose wind project. The NPV of the  
21 integration cost allocated to the Prairie Rose wind project in our Strategist  
22 modeling was \$29 million. Adjusting these integration costs for the 33 percent  
23 lower gas price forecast available today, the estimated cost of the Prairie Rose  
24 PPA would be reduced by \$9.7 million.

25

26 Q. CAN YOU ELABORATE ON THE ADDITIONAL BENEFITS THAT WERE NOT  
27 SPECIFICALLY IDENTIFIED IN THE STRATEGIST ANALYSIS?

1 A. Yes. While the Company did not quantitatively consider environmental  
2 externalities in deciding to execute the Prairie Rose PPA, it is reasonable to  
3 qualitatively consider the impact of possible carbon regulation between now  
4 and the end of the PPA term. For example, assuming a forecast of carbon  
5 regulation pricing that starts at \$15.77/ton in 2021 and escalates at 7 percent,  
6 the NPV benefit of reduced carbon dioxide emissions could be as large as \$43  
7 million. This example supports that from a qualitative standpoint, as the  
8 Commission did in approving the Company's Nobles Wind Project, it is  
9 reasonable to recognize that wind generation, such as Prairie Rose PPA,  
10 provides additional benefits in light of the possibility of future carbon  
11 regulation.

12  
13 Second the renewable energy credits ("RECs") resulting from the Prairie Rose  
14 PPA will accrue to our customers in North Dakota. If the RECs are not  
15 ultimately needed for compliance purposes, they could be sold, thus  
16 generating revenue to be returned to customers. As an example, if one were  
17 to assume an average price of \$3/REC, the NPV benefit to our North Dakota  
18 customers would be over \$1 million.

19  
20 Third new wind projects serve to diversify the company's energy mix and  
21 serve as a hedge against volatile fuel and market energy prices. While it is  
22 difficult to quantify this diversification benefit, model simulations indicate that  
23 the Prairie Rose PPA will eliminate the need to burn 1,700,000 MMBtu of  
24 natural gas annually. Therefore if natural gas prices were to increase by  
25 \$1/MMBtu the project would save an additional \$1.7 million annually.

26  
27 **VII. UPDATE ON PRAIRIE ROSE PROCEEDINGS AT FERC**

1

2 Q. IN FOOTNOTE 3 OF THE ADP APPLICATION, YOU NOTED THE  
3 INTERCONNECTION AGREEMENT FOR THE PRAIRIE ROSE PROJECT HAD BEEN  
4 CONDITIONALLY ACCEPTED BY THE FERC, BUT WAS THE SUBJECT OF  
5 ONGOING PROCEEDINGS AT FERC. PLEASE PROVIDE AN UPDATE.

6 A. The generation interconnection agreement (“GIA”) between Prairie Rose,  
7 MISO, and the Company was the first such agreement filed as a net zero  
8 interconnection agreement. On March 30, 2012, FERC issued an order in  
9 Docket No. EL11-53-000 which ruled that MISO inappropriately evaluated  
10 certain NZI projects, including the Prairie Rose GIA, in violation of MISO’s  
11 Tariff. The Petitioner, Shetek Wind, LLC, had alleged that accepting net zero  
12 interconnection agreements without FERC approved Tariff language was  
13 improper, and FERC agreed. FERC set the Shetek complaint for settlement  
14 judge or hearing procedures to determine if MISO’s actions resulted in  
15 discrimination against any similarly situated generator, and if so, what harm  
16 might have resulted.

17

18 In an order issued the same day in the MISO generation interconnection  
19 Queue Reform docket (Docket No. ER12-309-000), FERC indicated the NZI  
20 concept could increase the efficient use of the transmission system, but  
21 ordered MISO to develop new NZI Tariff language through a stakeholder  
22 process, and submit the revised Tariff provisions by September 30, 2012.

23

24 Finally, in the same order that determined MISO had administered its  
25 generation interconnection queue incorrectly, FERC also issued an order in  
26 the Prairie Rose GIA docket (Docket No. ER12-188-000) again conditionally  
27 accepting the provisional net zero interconnection agreement used by the

1 Prairie Rose Project, subject to the outcome of MISO's proposed Tariff  
2 revisions in the Queue Reform Docket.

3  
4 Settlement conferences were held during April and May 2012 before a FERC  
5 Administrative Law Judge ("ALJ"), but the process broke down because the  
6 parties could not agree to settlement terms. As a result, the settlement ALJ  
7 terminated settlement procedures, and the FERC Chief ALJ set the Shetek  
8 complaint (Docket No. EL11-53) for hearing procedures. On May 18, 2012,  
9 MISO, Prairie Rose and the Company (among others) proposed an accelerated  
10 hearing process on the threshold issue of whether any project was similarly  
11 situated to the NZI projects processed by MISO (including Prairie Rose). The  
12 first pre-hearing conference was held May 24, 2012, and the presiding ALJ  
13 declined to adopt the accelerated schedule. The procedural schedule provides  
14 for a hearing in January 2013 and an initial decision by the ALJ by May 2013.

15  
16 Q. BASED ON THE ABOVE, DO YOU FORESEE THE NZI GIA FOR THE PRAIRIE  
17 ROSE PROJECT ULTIMATELY RECEIVING UNCONDITIONAL APPROVAL FROM  
18 FERC?

19 A. The Company believes the NZI GIA with Prairie Rose will be approved once  
20 the MISO queue reform compliance proceeding is completed. I also  
21 understand the additional process will not threaten the continued viability of  
22 the project achieving operation. We will provide further updates to the  
23 Commission of any substantive changes in facts and circumstances.

## 24 25 VIII. CONCLUSION

26  
27 Q. PLEASE SUMMARIZE YOUR TESTIMONY.

1 A. The Company has undertaken significant efforts to meet the 200 MW North  
2 Dakota wind generation commitment in a cost-effective manner. Despite our  
3 efforts, to date we have not been able to obtain reasonable cost wind  
4 generation in North Dakota. Independent of our efforts in North Dakota, the  
5 Prairie Rose PPA provides benefits to our customers. The Prairie Rose PPA  
6 was the lowest cost, most viable resource selected from the 2010 RFP. For  
7 these reasons, we believe the Commission should grant an ADP for the Prairie  
8 Rose PPA.

9

10 Q. DOES THIS CONCLUDE YOUR TESTIMONY?

11 A. Yes, it does.

## **Statement of Qualifications**

### **Kurtis J. Haeger**

I graduated from the University of Colorado, Boulder, in 1982 with a Bachelor of Science Degree in Civil Engineering and from the University of Colorado, Denver, in 1987, with a Master of Business Administration in Finance.

I began my employment with Public Service Company of Colorado in June 1982, as a Gas Distribution Engineer. In June 1988, I was promoted to Supervisor, Gas Utilization and Testing. In May 1990, I was promoted to System Planning & Forecasting Manager, and, in October 1994, I was promoted to Gas Supply and Planning Manager. Upon the merger between Public Service Company of Colorado and Southwestern Public Service Company in August 1997, I assumed the same position with New Century Services, Inc., the service company subsidiary of New Century Energies, Inc. In March 1999, I assumed the position of Director, Gas Business Support. Upon the merger between New Century Energies, Inc. and Northern States Power Company in August 2000, I was appointed to the position of Director, Gas Supply and Supply Planning for Xcel Energy Services Inc. In May 2004, I was promoted to the position of Managing Director, Wholesale Planning, the position I currently hold.

Since 1990, my responsibilities have included the development of forecasts of annual and daily gas requirements, long term price of gas forecasts, cost of gas budgets, business planning, strategic planning, long range gas supply planning and gas integrated resource planning, gas supply purchasing, the purchasing of gas

transportation and storage services and electric resource planning for Public Service Company, Northern States Power Company and Southwestern Public Service. In my present position, I am responsible for the resource planning activities for electric generation, the gas supply planning functions for both the local gas distribution and the electric generation requirements, and the administration of the upstream gas transportation and storage contracts for the Xcel Energy operating companies.

I have presented testimony before the Colorado Public Utilities Commission in Docket Nos. 93A-561G, 94A-447G, 93S-001EG (95I-394G), 02A-267G, 98S-518G, 00A-415G, 97A-622G, 99A-549E, 00A-415G, 01A-181E, 02A-267G, 02S-315EG, 02A-541E, 03A-489EG and Application No. 34815. I have also sponsored testimony before the Federal Energy Regulatory Commission in Colorado Interstate Gas Co.'s rate case Docket Nos. RP93-99 and RP96-190, Northern Natural Gas Co.'s rate case Docket No. RP03-398 and before the Wyoming Public Service Commission in Docket No. 30005-GR-97-51.