

MONTANA-DAKOTA UTILITIES CO.  
A Division of MDU Resources Group, Inc.

Before the Public Utilities Commission of South Dakota

Docket No. EL04-016

Direct Testimony  
of  
Andrea L. Stomberg

1 Q. Would you please state your name and business address?

2 A. Yes. My name is Andrea L. Stomberg, and my business address is  
3 400 North Fourth Street, Bismarck, North Dakota 58501.

4 Q. What is your position with Montana-Dakota Utilities Co.?

5 A. I am the Vice President of Electric Supply for Montana-Dakota  
6 Utilities Co. (Montana-Dakota), a Division of MDU Resources Group, Inc.

7 Q. What are your responsibilities as the Vice President of Electric Supply?

8 A. My responsibilities include power production and planning,  
9 transmission and system operations and dispatch.

10 Q. Would you please outline your educational and professional background?

11 A. I graduated from the University of Washington with a bachelor's  
12 degree in Geology, from Oregon State University with a Master of Science  
13 degree in Soils, and from the University of Mary, Bismarck, with a masters  
14 in business management. I worked for the North American Coal  
15 Corporation for 10 years in surface mine permitting, reclamation planning  
16 and oversight. I have worked for Montana-Dakota for about 15 years in the  
17 environmental field prior to my current position.

18 Q. Have you testified in other proceedings before regulatory bodies?

19 A. I have provided testimony during legislative sessions in North

1 Dakota.

2 Q. What is the purpose of your testimony in this proceeding?

3 A. The purpose of my testimony is to provide information regarding  
4 power supply planning and related activities at Montana-Dakota, and  
5 discuss the nature of our contact with Superior Wind Energy.

6 Q. Please describe Montana-Dakota's current power supply?

7 A. Montana-Dakota operates an integrated electric system in portions  
8 of Montana, North Dakota and South Dakota. We currently support the  
9 electric energy requirements of the customers served by the integrated  
10 electric system with approximately 365 MW of baseload coal generation  
11 from five plants, and approximately 105 MW of gas or gas and oil fired  
12 combustion turbines used for peaking. Montana-Dakota also purchases  
13 66.4 MW of energy and capacity from Basin Electric Power Cooperative's  
14 (Basin's) Antelope Valley Station II under a contract which will expire  
15 October 31, 2006.

16 Q. How does Montana-Dakota plan for future power needs?

17 A. We produce long-range (20-year) forecasts of electric demand  
18 annually in December. The projected annual energy requirements are  
19 modeled for each customer class, and growth forecasts are applied.  
20 Montana-Dakota utilizes an integrated resource planning process  
21 involving load modeling and forecasting based on various load growth  
22 assumptions, followed by analysis of various demand and supply side  
23 alternatives in determining what should be considered the best options for  
24 supplying its customers. This integrated resource plan, or IRP, is updated  
25 every two years and is filed in with the Montana Public Service  
26 Commission and the North Dakota Public Service Commission pursuant

1 to regulatory requirements in those states with a copy filed with the South  
2 Dakota Public Utilities Commission on an informational basis. The IRP is  
3 a snapshot based on conditions that exist at the time the plan is prepared  
4 and is therefore subject to change as assumptions and business  
5 conditions change.

6 Q. When was Montana-Dakota's most recent IRP published?

7 A. The last IRP was published in July, 2003, and a revision will be  
8 published in July, 2005.

9 Q. What were the conclusions of the 2003 IRP?

10 A. The period studied for the 2003 IRP was 2003-2022. This  
11 document presented an "optimal integrated resource plan" that included  
12 78 MW from two new combustion turbines to be added in 2007 to replace  
13 the 66.4 MW capacity and energy purchase from Basin; modifications to  
14 existing combustion turbines at Glendive and Miles City, Montana for an  
15 additional 7.72 MW in 2010 and 2011; and another new 39 MW  
16 combustion turbine to be added in 2012. The plan also discussed the  
17 possibility of a new coal baseload plant designated as "Lignite Vision 21".  
18 Subsequent to filing the 2003 IRP Montana-Dakota determined that the  
19 plan's reliance on gas fired generation exposes our customers to  
20 considerable price and reliability risk associated with fuel cost and  
21 availability and does not necessarily reflect our current philosophy of  
22 power supply.

23 Q. If the 2003 IRP doesn't reflect Montana-Dakota's current power supply  
24 plans, what are those plans?

25 A. Our aim is to provide our customers with a competitively priced,  
26 reliable power supply. The 2003 IRP indicated a future power supply

1 heavily dependant on gas. This contrasts with our current reliance on  
2 coal-fired generation, which has lower and less volatile fuel prices, and a  
3 more stable fuel supply than natural gas. Several years ago, we began  
4 considering construction of another baseload coal plant for several  
5 reasons- the expiration of the Basin contract, the ageing of our current  
6 plant fleet, new environmental regulations that may be difficult to meet  
7 with our older plants, the increased volatility of gas prices coupled with  
8 low, but steady, growth in the electric requirements of our customers. A  
9 new baseload coal plant will provide stable prices for a long term period  
10 (30 to 40 years) which is not likely with natural gas.

11 Q. What new coal baseload resources are you considering?

12 A. Montana-Dakota has spent considerable time developing a new  
13 plant concept for southwestern North Dakota, the Lignite Vision 21 plant.  
14 While we have developed the planning for this plant to the point we were  
15 able to submit an air permit application, we have not definitely committed  
16 to this project, and are actively assessing two other coal-fired baseload  
17 projects in the region, which I will discuss later.

18 Q. How does the possibility of a new coal plant impact Montana-Dakota's  
19 near-term power supply needs and plans?

20 A. Building a new coal fired plant can take ten or more years from  
21 initiation to completion. Because of the expiration of the Basin contract,  
22 we face an interim period of deficit capacity, from October 2006 to about  
23 2010, the earliest we feel we could have a new plant on-line. To address  
24 this problem, we signed contracts with the Omaha Public Power District  
25 (OPPD) for summer capacity and energy for the period 2004-2006, and  
26 baseload capacity and energy for the period 2007-2010. The summer

1 capacity purchases were relatively small- 5 to 15 MW during the period  
2 2004-2006 with the purchases of 70 to 100 MW in the later period to  
3 replace the Basin contract and provide for load growth before a new plant  
4 would be available. The OPPD contracts were contingent upon obtaining  
5 firm transmission and were set to expire December 31, 2004 unless the  
6 required transmission was obtained.

7 Q. What was the result of Montana-Dakota's efforts to obtain transmission?

8 A. In February of 2004 we began efforts to obtain transmission.  
9 Constraints within the Midwest Independent System Operator (MISO)  
10 system blocked our efforts, despite concerted and creative efforts of our  
11 transmission engineers to mitigate the constraints. We formally withdrew  
12 transmission requests in early October, 2004, however, we did not cancel  
13 the contracts with OPPD. Our experience with transmission constraints is  
14 that they can evolve daily i.e., changes in equipment or flows almost  
15 anywhere in MISO or MAPP can affect transmission availability. We  
16 considered it a possibility, albeit remote, that transmission might become  
17 available before the end of 2004 due to the efforts of others, or through  
18 unforeseen changes elsewhere on the system. This is why we considered  
19 that we had no unmet capacity needs through 2010, up until the contracts  
20 actually expired on December 31, 2004.

21 Q. What did Montana-Dakota do when you learned that transmission might  
22 not be available for the OPPD contract?

23 A. In June of last year, we began informal discussions with NorthPoint  
24 Energy Solutions, Inc. (NorthPoint), for summer capacity and energy for  
25 the years of 2005 and 2006. As I mentioned, our load forecasts indicate  
26 that our current generation capacity is sufficient for anticipated peaks for

1 these years, however, MAPP penalties for being short of capacity are  
2 significant, and it was deemed prudent to arrange for additional firm  
3 summer peaking capacity. Shortly after signing a contract for this product  
4 in mid-July, we obtained firm transmission for the capacity.

5 Q. What did you do regarding the capacity shortfall for 2007 to 2010?

6 A. It was determined that the only alternative was to issue a Request  
7 for Proposal (RFP) to identify what capacity and energy might be available  
8 and at what price that capacity and energy could be delivered for that time  
9 period. The RFP was widely distributed to suppliers in MAPP and to the  
10 Mid-Continent Energy Marketers Association. We received only three  
11 bids, and are currently evaluating the proposals and other options that  
12 may be available to Montana-Dakota. None of the bids, nor a  
13 combination of the proposals, provide the requested amounts of capacity  
14 and associated energy. The RFP specified firm, dispatchable resources.  
15 This is the quality of resource we feel we need to provide reliable electric  
16 service for our customers.

17 Q. What other resources are available to meet this capacity shortfall  
18 identified for the period 2007-2010?

19 A. One other resource under consideration, in conjunction with the  
20 bids we received in response to the RFP, is rented or leased combustion  
21 turbines to be available during Montana-Dakota's summer peaking  
22 season.

23 Q. Why didn't Montana-Dakota consider capacity and energy from the  
24 Superior project and reduce the requirements stated in your RFP?

25 A. Montana-Dakota sought supply resources in a range of 70 to 100  
26 MW in the RFP. In the event Superior's proposed Java wind project

1 comes to fruition, the capacity and energy ultimately purchased from other  
2 sources will be adjusted to reflect any accredited capacity that can be  
3 provided by Superior's proposed Java wind project. However, at this time  
4 Superior's proposed Java wind project is not operational, and we do not  
5 know that it will be operational by 2007. Further, we are attempting to  
6 replace a baseload resource, and as such, a dispatchable resource with  
7 an annual capacity factor of 80 percent or greater is required. Firm  
8 capacity was defined in the RFP as that which is available at all times and  
9 under all conditions.

10 Q. Why hasn't Montana-Dakota committed to a specific new coal fired  
11 baseload plant?

12 A. As I stated earlier, we are determined to provide the best priced,  
13 most reliable power to our customers. Many factors affect the price of  
14 power from any plant, but economies of scale profoundly impact capital  
15 costs. Due to the location of the proposed Lignite Vision 21 plant and  
16 identified transmission constraints, Montana-Dakota has not been  
17 successful in securing other partners or buyers for the capacity above the  
18 Company's identified requirements for the next 15 or so years. This has  
19 resulted in a maximum practical size for that plant of 175 MW. Other  
20 options include the Resource Coalition, which is a group of generation  
21 and transmission cooperatives, municipal corporations and investor  
22 owned utilities which is evaluating a possible 600 MW plant in the upper  
23 Midwest. Another option under review is the 600 MW Big Stone II plant in  
24 eastern South Dakota. We have been involved with the Resource  
25 Coalition since late 2003, and with early proposals for the Big Stone II  
26 plant since 2001. These larger plants offer economies of scale and hence

1 lower capital costs than the Lignite Vision 21 plant. We are evaluating all  
2 three resources, but we haven't committed to any particular plant, and  
3 don't expect to until much later this year.

4 Q. Why did Montana-Dakota initially use the Lignite Vision 21 plant as the  
5 next baseload resource in the estimate of avoided costs provided to  
6 Superior?

7 A. Montana-Dakota has been very focused on the potential  
8 development of this plant for several years. Only recently did we begin to  
9 work with the Resource Coalition in evaluating their proposed new plant.  
10 And only more recently have we seriously considered involvement with  
11 the Big Stone II project. Neither of these projects is as fully developed as  
12 the Lignite Vision 21 plant. However, given the significant economies of  
13 scale, commitment to these initiatives is under serious consideration. That  
14 being the case, the avoided costs must reflect the more economic capital  
15 costs of a larger plant, given that two very feasible alternatives are  
16 available to meet Montana-Dakota's power supply needs.

17 Q. Why has the decision of what resources to use in the future changed so  
18 significantly since the 2003 IRP?

19 A. As noted by Mr. Ed Kee, the electric utility industry is rapidly  
20 changing. The price of natural gas has skyrocketed. The transmission  
21 grid is adequate for the Company's existing resources, but the addition of  
22 even a few megawatts of supply can have impacts for many miles, and  
23 states, away from the new source. The emergence of MISO has  
24 profoundly altered the way transmission is reviewed and ultimately  
25 approved. In addition to this new paradigm, many utilities in the upper  
26 Midwest are capacity deficient, and alliances are forming to explore



1 construction of large jointly owned facilities. While cognizant of the need  
2 to commit to new resources in a timely manner, the Company is also  
3 compelled to evaluate all reasonable options.

4 Q. What has been the nature of Montana-Dakota's contacts with Superior  
5 Wind Energy and other wind developers?

6 A. As noted in Mr. John Calaway's testimony filed in this case, the  
7 Company has had contact with Superior's representatives since early  
8 2002. Superior brought us numerous projects to consider. Additionally, we  
9 had contact with many other wind developers- in 2004 alone, Montana-  
10 Dakota's staff met with nine different wind developers, including Superior,  
11 on at least 41 occasions.

12 Q. What was the nature of Superior's proposals?

13 A. Superior presented several different proposals for wind farms in the  
14 Dakota's that were consistently more expensive than other wind  
15 resources. As stated, Montana-Dakota's primary goal is reasonably  
16 priced, reliable power. During the time Superior contacted us about their  
17 proposed projects, the Company had a contract with Dakota I Power  
18 Partners (Dakota I) to purchase the output of a 20 MW wind farm in  
19 Dickey County, North Dakota, for a price much less than any price offered  
20 by Superior.

21 Q. What is the status of the Dakota I project?

22 A. Dakota I defaulted on their project in May 2004. Prior to that time,  
23 when it was apparent that Dakota I was likely unable to finance its project,  
24 we began negotiations with Dakota I and FPL Energy, LLC (FPL), which  
25 would have resulted in FPL taking over the project. It was during this  
26 period of negotiations in April of 2004 that Superior made a number of

1 contacts pressing us to enter into power purchase negotiations, and  
2 clearly suggested that they would exercise their Qualified Facility status  
3 under PURPA.

4 Q. Why didn't Montana-Dakota negotiate with Superior for renewable power?

5 A. Early contacts with Superior indicated that Superior's projects were  
6 relatively high priced. As I have said, prior to the time Superior claimed QF  
7 status, we were still working with Dakota I and FPL to try to resurrect the  
8 Dakota I project. And, as acknowledged by Superior in John Callaway's  
9 direct testimony, Montana-Dakota's system is relatively small, and its  
10 ability to absorb a large amount of supply for a variable energy source like  
11 wind is limited. The Company's intent with Dakota I was to purchase a  
12 relatively small amount of wind energy, and learn to integrate it efficiently  
13 into our system. Additionally, other wind developers had approached us  
14 with projects with a lower cost than that offered by Superior.

15 Q. Do you feel that Montana-Dakota has acted in good faith with Superior?

16 A. Yes, I do. It is evident that Superior feels that we have made a  
17 concerted attempt to thwart their efforts to build the Java wind project.  
18 However, given the serious obligation to provide power to our customers,  
19 the larger issues discussed earlier have made us cautiously approach this  
20 and any other supply project. During the period that we have considered  
21 Superior's QF position and attempted to define avoided costs, not only  
22 have certain of Montana-Dakota's power supply contracts expired, but  
23 additional future supply possibilities have appeared. Our attempt to  
24 define the most likely future power supply has been difficult, but the  
25 changes reflect this attempt, not a deliberate effort to frustrate Superior.

26 Q. Does this conclude your direct testimony?

1 A. Yes, it does.

BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF SOUTH DAKOTA

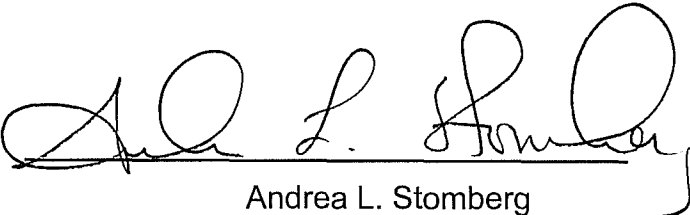
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IN THE MATTER OF THE FILING BY )  
SUPERIOR RENEWABLE ENERGY LLC ET AL. )  
AGAINST MONTANA-DAKOTA UTILITIES CO. )  
REGARDING THE JAVA WIND PROJECT )  
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EL04-016

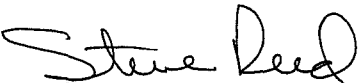
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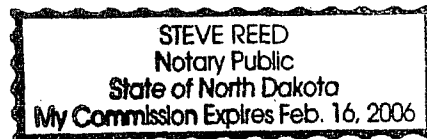
County of Burleigh  
State of North Dakota

Andrea L. Stomberg, being first duly sworn, deposes and says that the Testimony of Andrea L. Stomberg submitted in the above-captioned proceeding was prepared by her, with the assistance of others working under her direction and supervision, that she is familiar with the contents thereof, and that the statements set forth therein are true and correct to best of her knowledge, information and belief.

  
Andrea L. Stomberg

Subscribed and sworn before me  
this 31<sup>st</sup> day of January 2005.

  
\_\_\_\_\_  
Notary Public



My Commission expires: 02/16/06