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ANDREA STOMBERG,

having been previously duly sworn, was examined and testified as follows:

CROSS-EXAMINATION

BY MR. BINEK:

Q. In your testimony you talked about MDU's involvement in the 500 megawatt Lignite Vision 1 -- Vision 21 plan at Gascoyne. Why was that project abandoned, or is "abandoned" not the appropriate word?

A. I'll be happy to address that. That is also further addressed by Mr. Duane Steen, but I'll certainly answer that. The 500 megawatt LV21 plan is a lignite -- was a lignite plant located at Gascoyne. 500 megawatts is a size of a plant that gives you an economy of scale that makes it -- improves the economics of a plant. 500 megawatts is our entire load. By ourselves we cannot -- it would not be prudent at all to have all of our generation coming from one plant.

So to achieve the economies of scale that we would like to see for our customers, we went out hoping that we could find partners for that 500 megawatt plant and that we could take a portion of that plant that would be adequate for our needs and

1 then get partners, similar to what we have done
2 here at Big Stone. There are partners, too, to
3 share the load. Gascoyne is very remote from load
4 centers, and there's not a lot of transmission to
5 those load centers, and we were unable to find
6 partners to take up the additional megawatts in
7 that plant, and so we looked at several other
8 sizes, ultimately permitted a 175 in terms of air.

9 Q. Do you think there's any possibility that
10 a coal-fired plant could feasibly be constructed at
11 Gascoyne in the future --

12 A. Yes, I do.

13 Q. -- or is that pretty much a dead issue?

14 A. No. I do believe that that's a good
15 location for a coal-fired plant, yes.

16 Q. In your testimony on page 7 you make the
17 statement, Reliance on a strict least-cost resource
18 decision may not encompass renewable energy, may
19 not support the availability of low-cost energy to
20 attract new customers as a result of economic
21 development efforts, or encompass off-system sales
22 that benefit Montana-Dakota customers. Would you
23 please explain that statement?

24 A. Sure. That statement was made in
25 reference to the 2003 IRP modeling, which the

1 modeling, itself, selected gas turbines as a next
2 resource, as the least-cost resource for our
3 company. And, again, if you go strictly least cost
4 in terms of capital costs, you may not encompass
5 the type of -- let me back up here again a little
6 bit.

7 If you pick gas turbines to really fill
8 the niche that you need in the planning for your
9 resource as presented in the model, it would pick
10 that -- pick that resource, that gas turbine, and
11 that's very expensive energy. The capital costs
12 are low, but the energy is very expensive and
13 subject to the fluctuation of the gas pricing as
14 well as the availability of that resource. That is
15 not going to be an attractive energy type to supply
16 to a large industrial that wants to come in and
17 says, I need low-cost energy for a long period of
18 time. You can't do that with gas turbines. So
19 it's a least-cost resource, but it may not be the
20 best-cost resource to meet the needs that you hope
21 you'll see within your service territory.

22 Additionally, renewable energy is not
23 usually a least-cost resource. So if you have to
24 go with strictly least-cost resource planning,
25 you're likely to exclude wind, certainly going to

1 exclude solar, going to exclude a lot of these
2 other technologies that some people have interest
3 in our developing -- in us developing if you have
4 to be tied to strictly least-cost energy
5 selections.

6 Q. Thank you. I'm sure you heard the
7 exchange -- testimony regarding MDU's DSM efforts
8 and the theory that MDU isn't doing enough to
9 promote demand side management. What is your
10 response to those criticisms?

11 A. Well, the criticisms -- I did listen to
12 them. I think when you talk about the rate of
13 penetration of DSM in certain markets -- and I'm no
14 expert here and I will defer to Mr. Heidell on some
15 of this, but I'll give you some -- my answer --
16 that it's a lot easier to have a lot of DSM
17 penetration in a market where your prices are 15
18 cents than they are when they're 7 cents. There's
19 a lot more incentive for people to do DSM in an
20 expensive -- for instance, a California market. I
21 think that's why you see DSM penetration there much
22 deeper than you do here.

23 Secondly, we do have a -- what I think is
24 a fairly robust DSM program. We have shown in my
25 testimony that we're looking at close to 20

1 megawatts of DSM in the foreseeable future and we
2 will continue to grow that program. Montana-Dakota
3 also recently created a position for a person to do
4 nothing but DSM-type work, so I think we can show
5 that we are serious in advancing DSM where it makes
6 sense for our customers.

7 MR. BINEK: I have no further questions.

8 JUDGE WAHL: Questions by the Commission.
9 Commissioner Wefald.

10 **EXAMINATION**

11 **BY COMMISSIONER WEFALD:**

12 Q. Yes. Yesterday Otter Tail was commenting
13 about their demand side management activities and
14 they said that -- first, Mr. Uggerud said that they
15 have 699 megawatts of generation on their system,
16 and then they said that in Minnesota, which
17 encompasses about 50 percent of their customer
18 group, they've been able to implement -- or they
19 plan to implement 67 additional megawatts of demand
20 side management, and so I'm looking right now, even
21 -- I don't know what they already have presently on
22 their system, but I know at least he mentioned 67
23 megawatts, and so maybe that's what's going to be
24 the potential plus what currently is existing. I'm
25 not quite clear on that, but I do know he mentioned

1 67 megawatts. So right now they have -- let's say
2 it's approximately 10 percent of their generation,
3 they're anticipating to have in megawatts of demand
4 side management and that's from 50 percent of their
5 customers, of their load. All right?

6 A. Mm-hmm.

7 Q. And so I looked -- I'm looking at
8 Montana-Dakota Utilities, and you can perhaps help
9 me again because I don't have -- it's Mr. Imsdahl
10 this morning was talking to us about -- let's see,
11 it's under 3. He said that MDU has 476 megawatts
12 of generation, and I believe he said that 65
13 percent of the customers are in North Dakota.
14 Let's start with that question.

15 A. That's about correct.

16 Q. Is that correct?

17 A. That's about correct.

18 Q. So if someone has a calculator, let's take
19 476 times 65 percent, and what is the answer to
20 that question first?

21 A. Somebody.

22 UNIDENTIFIED PERSON: 309.

23 Q. (COMMISSIONER WEFALD CONTINUING) 309.

24 A. Maybe I wasn't following the question.

25 Q. 309. So if 67 megawatts -- if Otter Tail

1 can find 67 megawatts of demand side management
2 from 50 percent of 699 of -- you know, from half
3 their people on a system of 699 megawatts of
4 generation, then should MDU be able to find -- now
5 I've got to get this right -- an appropriate
6 percentage? Why risk the math.

7 A. An appropriate. Well, I guess first off,
8 I'd have to say I don't think we have identical
9 systems.

10 Q. Well, it is as far as generation --

11 A. Well --

12 Q. -- or customer profile?

13 A. In terms of customer profile. I mean, I
14 honestly don't know if you have more or less
15 commercial or industrial than we do or if we have
16 more retail. I think -- and, again, I am not a DSM
17 expert, but I don't think you can compare. I mean,
18 I'm not sure we have apples to apples here. We
19 have apples to oranges.

20 Q. Let's say you did. Let's say you did.
21 Let's say you did have a system that was similar in
22 load profile, et cetera.

23 A. Yeah.

24 Q. What has MDU done recently then to look
25 for resources that are -- for demand side

1 management that are under -- you just said we offer
2 power in North Dakota for your customers of
3 approximately 7 cents a kilowatt-hour?

4 A. Retail.

5 Q. Retail. All right. What would you say is
6 the generation cost and what are your distribution
7 and transmission costs to add up to that 7 cents?

8 A. Well, roughly -- I think I can say this,
9 roughly 3 cents in distribution, 1 cent in
10 transmission, and about 3 cents in power
11 generation.

12 Q. Okay. So we heard yesterday that the Big
13 Stone Plant would have generation costs of 6.9
14 cents, and if we use those same figures of 3 cents
15 for distribution and 1 cent for transmission, we
16 would be up to 11 cents.

17 A. Well --

18 Q. So what demand side resources has MDU
19 looked at that are under the cost of 6.9 cents for
20 generation plus, you know, however you figure,
21 because then you don't have to have the
22 distribution and transmission costs for demand side
23 management and so you're at 11 cents.

24 A. I think what I would really prefer to do,
25 because I'm not sure -- my rate people can tell me

1 if I'm wrong, but I think the calculation is not
2 quite that linear. And what I'd prefer to do, I
3 guess, is address your question, what have we
4 done -- and I hope that's going to answer your
5 question -- what have we done with regards to DSM
6 lately.

7 Q. No. I don't want that question, because I
8 can see in your testimony what you've done lately.

9 A. Okay.

10 Q. You have told us in your testimony that
11 you've considered -- and this is under Mr.
12 Heiney's -- is that his name?

13 COMMISSIONER CLARK: Heidell's.

14 THE WITNESS: Heidell's.

15 Q. (COMMISSIONER WEFALD CONTINUING) --
16 Heidell's testimony -- and where is that located
17 again in the exhibit book?

18 MS. DANIELS: 7. Tab 7.

19 Q. (COMMISSIONER WEFALD CONTINUING) Tab 7.
20 And you go back to his study that he did of
21 integrated resource plan, and it's on page 4.1, and
22 it says --

23 A. I don't have that in front of me.

24 Q. -- In addition to the generation options,
25 PA included three demand side management options as

1 contracts based upon extrapolation of data from
2 Montana-Dakota's 2005 integrated resource plan.
3 One was based upon Montana-Dakota's 2005 integrated
4 resource plan, so there was one that was in your
5 integrated resource plan and the other two were the
6 result of discussions with Montana-Dakota. The
7 three demand side options are 7.36 megawatts of
8 residential and commercial air conditioning peak
9 control measures available at a cost of 373 per
10 kilowatt and an additional 5 and 10 megawatts of
11 conservation available at 470/kilowatt and 560/
12 kilowatt, respectively. And these are summarized
13 in table 4.2.

14 A. Thank you.

15 Q. So that adds up to a total of 27 megawatts
16 over a periods of 20 years.

17 A. Okay.

18 Q. Because they're dated years available 2011
19 through 2025, and some are available 2009 to 2025.
20 So we don't know exactly if those are going to be
21 put in place any time before 2025. You've left
22 yourselves a lot of options.

23 A. Okay. So, again, would you please restate
24 your question to me?

25 Q. My question is, what demand side options

1 are available to MDU -- have you looked at the
2 options that are available for your customers --
3 demand side management options that are available
4 up to the cost of generation that would be
5 available from the Big Stone Plant?

6 A. From Big Stone. Okay. I don't think I
7 can answer that question.

8 Q. Could you file that as a late-filed
9 exhibit then with the Commission? Can you file the
10 same information Otter Tail said they would file
11 yesterday with us?

12 A. I believe so. I don't know why we
13 couldn't do that. We do look at a broad suite of
14 DSM programs, and if it's as simple as looking at
15 the economics of those against the projected costs
16 on Big Stone, I believe we can do that.

17 Q. Okay. I believe this is what we asked for
18 yesterday, and then you tell me if I've got it
19 wrong. Okay. Yesterday I requested that Mr.
20 Morlock provided a late-filed exhibit listing Big
21 Stone II and other supply side options as well as
22 demand side management and other demand side
23 options. Those options would be listed in the
24 order of implementation thereby reflecting the
25 relative cost of those options. And can MDU

1 provide a similar late-filed exhibit?

2 A. Sure. Certainly.

3 Q. Now I would be happy to hear what you have
4 been doing as far as trying to find demand side
5 management options.

6 A. Well -- and, again, I think what our
7 program said are planned for the next several years
8 are pretty well laid out in our testimony and also
9 are further fleshed out in the IRP, which will be
10 filed on July 1st with your -- with you, and I'm
11 sure you're looking forward to that.

12 Q. I am.

13 A. And certainly Energy Star -- looking at
14 actual demand reduction, Energy Star programs,
15 refrigerators and freezers, refrigerator roundup,
16 which is an incentive to have people clear their
17 old refrigerators, their beer fridges basically,
18 out of their garages and reduce those
19 inefficient -- relatively less-efficient
20 appliances, residential and commercial air
21 conditioner cycling and high-efficiency air
22 conditioners, high-efficiency motors and, of
23 course, our demand response rates are all programs
24 we are looking at implementing or expanding between
25 '07 and '09.

1 Q. What is the one air conditioning cycling?
2 Does that just mean people -- describe that to me,
3 what that is.

4 A. The air conditioning cycling, I don't --
5 as I understand it, you have a thermostat that
6 allows the utility to control that air
7 conditioning.

8 Q. So you'll be turning it off and on as you
9 hit peaks?

10 A. Correct.

11 Q. Do you have that in place in any of the
12 states at the present time?

13 A. No. It is a project under development.

14 Q. So when do you anticipate having that in
15 place in North Dakota?

16 A. I believe -- you know, I don't know. I
17 don't know what the dates are for that program.
18 Like I said, these are intended to be implemented
19 between '07 and '09. And it's also a matter, of
20 course, of having customers willing to have those
21 thermostats in their homes.

22 COMMISSIONER WEFALD: I understand. Okay.
23 I think that's all. Thank you.

24 JUDGE WAHL: Any further questions from
25 the Commission? Commissioner Clark.

1 COMMISSIONER CLARK: I do have a few.

2 EXAMINATION

3 BY COMMISSIONER CLARK:

4 Q. I'm going to ask a question which is maybe
5 kind of a general public question because it's one
6 that I get asked from time to time. MDU is --
7 North Dakota is the largest percentage of MDU's
8 system both geographically and saleswise, is that
9 correct, on the electric side?

10 A. Correct. That's correct, yes.

11 Q. North Dakota has the best wind resource as
12 calculated on a whole number of bases; correct?

13 A. Mm-hmm.

14 Q. But as of yet MDU doesn't have any wind in
15 North Dakota. I understand that there's a proposed
16 project in Montana and I think that -- now, was
17 that allocated -- will the cost of that be
18 allocated just to Montana?

19 A. No. I believe that's part of our
20 integrated system, as all our energy resources are.

21 Q. Why doesn't Montana-Dakota have any wind
22 power in North Dakota, its largest customer base
23 and the best state for wind resource?

24 A. Montana-Dakota, I believe, was the first
25 state to sign a PPA for wind off of a project. It

1 was a 20 megawatt project that the developer did
2 not develop. We had a 31 megawatt project in South
3 Dakota that the developer also defaulted on. I
4 think that our record stands for -- on its own with
5 regard to having attempted to develop wind projects
6 in North Dakota. The Montana project is in
7 response to the renewable portfolio standard in
8 Montana, and we are going to be developing that
9 ourselves in part -- well, part because the
10 economics indicate that that is the cheapest way to
11 develop that, but, also, because we're pretty sure
12 it will get done if we're going to develop it
13 ourselves. We are certainly going to be responsive
14 to the North Dakota renewable portfolio standard --
15 excuse me -- objective and will be looking at what
16 is economic for our customers in the State of North
17 Dakota to develop in North Dakota.

18 Q. Is the Montana site the most economical
19 site to pick in the entire footprint?

20 A. I couldn't answer that.

21 Q. Should I direct questions about some of
22 the Gascoyne economies of scale, things like that,
23 to Mr. Steen?

24 A. That would probably be the most
25 appropriate witness, yes.