

STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION

Basin Electric Power Cooperative, Inc. :
Electric Generation/Wind - Ward County : Case No.
Siting Application : PU-08-75

TRANSCRIPT OF
PUBLIC HEARING

Taken At
420 Third Avenue Southwest
Minot, North Dakota
May 26, 2009

BEFORE AL WAHL
-- ADMINISTRATIVE LAW JUDGE --

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COMMISSIONERS PRESENT:

COMMISSIONER KEVIN CRAMER, President
COMMISSIONER TONY CLARK
COMMISSIONER BRIAN P. KALK

MS. DEBORAH FOHR LEVCHAK and
MS. CASEY JACOBSON
Basin Electric Power Cooperative
Staff Counsel
1717 East Interstate Avenue
Bismarck, North Dakota 58503-0564

FOR BASIN ELECTRIC
POWER COOPERATIVE.

MS. ANNETTE M. BENDISH
Public Service Commission
Staff Counsel
State Capitol
600 East Boulevard Avenue
Bismarck, North Dakota 58505-0480

FOR THE PUBLIC SERVICE
COMMISSION.

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EXHIBITS:

No.	Description	M	O	R
1	Project area site plan map	26	28	28
2	(Late-filed exhibit)			
3	Diagram represent a GE 1.5 megawatt wind turbine	46	46	46
4	Site layout drawing	59	59	59
5	(Late-filed exhibit)			
6	Map of the project area depicting PSC energy conversion facility exclusion and avoidance areas	99	99	99
7	Map of the project area depicting prime farmland	104	104	105
8	Written testimony of Terry Ellsworth	130	130	131
9	(Late-filed exhibit)			

1 (The following proceedings were had and
2 made of record herein, commencing at 11:00 a.m.,
3 Tuesday, the 26th day of May, 2009:)

4 JUDGE WAHL: Good morning. I'm Al Wahl,
5 the Administrative Law Judge pursuant to temporary
6 appointment, designated by the Office of
7 Administrative Hearings upon the request of the
8 Public Service Commission to serve as the hearing
9 officer for this hearing.

10 This is the hearing of the application of
11 Basin Electric Power Cooperative, Inc., for a
12 certificate of site compatibility to authorize
13 construction of a 115.5 megawatt wind energy
14 facility in Ward County, North Dakota, known as the
15 PrairieWinds project. The facility will consist of
16 up to 77 wind turbines and associated facilities.
17 This is North Dakota Public Service Commission Case
18 No. PU-08-75.

19 Before proceeding with the hearing, I will
20 ask the Commissioners for their comments and any
21 directions for the hearing. Commission president,
22 Kevin Cramer.

23 COMMISSIONER CRAMER: Thank you, Judge,
24 and thank all of you for being here today in Minot.
25 A long time ago our legislature in their wisdom

1 passed a law that requires the siting hearings of
2 energy conversion facilities be held in the
3 community that is most affected. In this case, of
4 course, it's Ward County, and so that brings us to
5 Minot, and that was very wise for a number of
6 reasons, not the least of which is it gets us out
7 of town and out of the Capitol building, but it
8 also maximizes the opportunity for the public to
9 participate, which is really what it's all about.

10 One thing about North Dakota government,
11 we're very accessible and we like it that way, both
12 as the public and as public officials. And it's
13 great to see a number of your public officials
14 here, including your mayor. Mr. Mayor, thanks for
15 being here.

16 Today is a very important day in this
17 community. We -- in my six years on the
18 Commission, I don't think I've had a hearing in
19 Minot yet, so this is kind of fun to see some of
20 this energy development now coming up here to Ward
21 County and this part of the state. We always like
22 Basin Electric projects because they always come to
23 hearings very well prepared. So we look forward to
24 that as well.

25 We live in an extraordinary time in North

1 Dakota and in America. Once again, North Dakota
2 has what America wants and it needs, not only in
3 the area of food production, but definitely in the
4 area of energy production, and it's kind of fun to
5 drive up from Bismarck up to Minot and drive
6 through coal country and see power plants and
7 draglines and then get up here and have a hearing
8 for a wind farm. It's, I think, just perfect for
9 what we're all about here in North Dakota and the
10 opportunity that that presents.

11 One of the things I would say to the
12 members of the public, and you'll hear this
13 admonition from all of us throughout the course of
14 this hearing, and that is that if you have
15 something to say, whether it's in support of the
16 project, if it's in opposition to the project, if
17 it's a concern about a detail of the project, this
18 is your opportunity. We are here for you.

19 And when it comes to that point in the
20 hearing where we ask for public comment, public
21 testimony, please, if you have something on your
22 mind or on your heart, get up and share it with us,
23 because after today it will be too late. Once the
24 hearing is closed, it is closed to any more
25 information other than late-filed exhibits, and you

1 will have missed your opportunity. So please do
2 not leave this room saying, darn, I wish I would
3 have told them this, or I wish I would have shared
4 this concern, because this is your opportunity and
5 you're why we are here.

6 With that we look forward to a good,
7 thorough hearing and our time in Minot.

8 JUDGE WAHL: Commissioner Tony Clark.

9 COMMISSIONER CLARK: Well, thank you, and
10 thank you all for being here. As Kevin referenced,
11 these really are remarkable times in the State of
12 North Dakota. If you look at the development of
13 the wind energy industry, it has been truly
14 remarkable. If you go back six, seven years, we
15 had literally zero megawatts of wind power in the
16 state. As of today we have somewhere around
17 700 megawatts of wind power in North Dakota. By
18 the end of this year we expect there will be closer
19 to 900, perhaps a thousand megawatts of wind power.

20 If you compare that to a traditional coal
21 generating plant, it's probably about like having,
22 you know, roughly two new coal plants go up in the
23 state just in the last few years.

24 Now, when you consider the coal plant, the
25 timeline for those are anywhere from 10, 12 years

1 to get one into production. These wind farms come
2 together very fast, and certainly for the
3 Commission and for the public it puts pressure on
4 all of us to make sure that it's done right, and
5 that's why we're here today. We're here to ensure
6 that as wind energy development takes place in
7 North Dakota, as energy development takes place in
8 North Dakota, it's -- it's done in the right way.

9 I -- I would just like to reinforce
10 something that Kevin mentioned about getting up and
11 speaking. If you do have something to say, please
12 do. You'll notice that this is a little bit more
13 formal perhaps than maybe what you're used to at a
14 county commission hearing or even a legislative
15 hearing or anything like that, and that's because
16 when the Public Service Commission makes a record,
17 when the Public Service Commission makes a
18 decision, it has to be based on a record that's
19 developed at a hearing like this where all the
20 witnesses are sworn in, their testimony is under
21 oath, and everyone has the chance to cross-examine
22 the people who are testifying.

23 Now, the reason that that's important, as
24 Kevin said, is the only thing that we can make a
25 decision on are the things that are talked about

1 here today, the things that are put in the record
2 here today. I've had a number of instances in my
3 eight years on the Commission where we'll have a
4 hearing somewhere and we'll all give the admonition
5 that folks should get up and say something if they
6 want anything to be considered, whether it's pro or
7 con or just something for the Commission to think
8 about, and five minutes after it closes, someone
9 comes up to you and says, Boy, that was really
10 interesting, but I wish you really would have known
11 this, and then they tell it to you, and, of course,
12 we as Commissioners then can't take it into
13 consideration.

14 So please do provide your input. We
15 appreciate the fact that you're here, and we look
16 forward to a very good hearing.

17 JUDGE WAHL: Commissioner Brian Kalk.

18 COMMISSIONER KALK: Well, thank you. I
19 just want to echo some of the thoughts you've
20 already heard. I'm also excited to be in Minot. I
21 grew up in Bottineau, and so I spent a lot of time
22 here growing up and really have a good reference
23 point of what Minot used to look like and what it
24 looks like today.

25 Driving down today from Bottineau -- I

1 came the other way -- it's really exciting to see
2 what is going on in Minot. We've got the hearing
3 today on the wind towers, we've got the intermodal
4 facility working out there. I had the opportunity
5 to tour SRT, all the good things they're doing.
6 You've got Verendrye and Central Power. There's a
7 lot of great things going on in Minot today. The
8 college is going well. I understand the college
9 has started an energy management program. So you
10 can see that Minot is really positioning itself for
11 the future, and it's exciting for the Commission to
12 be part of what's going on here, as well as the
13 State.

14 The last thing I'll just leave you with is
15 the same thing that you heard my fellow
16 Commissioners say. We're here to hear your
17 thoughts today and that's what we need to do.
18 Good, bad or indifferent, let us know what's going
19 on because we want to make the best decision, and
20 one thing that I learned, you know, in my time in
21 the Marine Corps is that in order to make the best
22 decision, you have to have the best information.
23 So please give us your information here today.
24 We'll take it back and we'll go through it and
25 we'll make the best decision possible.

1 Thank you.

2 JUDGE WAHL: Thank you, Commissioners.

3 The record will show that it is a little past
4 11 o'clock a.m., May 26, 2009, the time and date
5 noticed for the hearing of the application of Basin
6 Electric Power Cooperative, Inc., for a certificate
7 of site compatibility to authorize construction of
8 a wind energy facility in Ward County, North
9 Dakota, known as the PrairieWinds project, all as I
10 have previously recited and as is set forth in the
11 notice of filing and notice of hearing dated
12 April 22, 2009, and shown by the map which is part
13 of that notice of filing and notice of hearing.

14 All is previously published in accordance
15 with the provisions of statute and the Commission's
16 rules.

17 The Commission's notice of hearing for
18 this hearing specified the following issues to be
19 considered and determined upon this hearing:

20 One, will the location, construction, and
21 operation of the proposed facilities produce
22 minimal adverse effects on the environment and upon
23 the welfare of the citizens of North Dakota?

24 Two, are the proposed facilities
25 compatible with the environmental preservation and

1 the efficient use of resources?

2 Three, will the proposed facility
3 locations minimize adverse human and environmental
4 impact while ensuring continuing system reliability
5 and integrity and ensuring that the energy needs
6 are met and fulfilled in an orderly and timely
7 fashion?

8 Ms. Levchak, will you please state your
9 appearance for the record?

10 MS. LEVCHAK: Your Honor, my name is
11 Deborah Levchak. I'm staff counsel for Basin
12 Electric Power Cooperative. If this is the
13 appropriate time, Your Honor, I would like to
14 recognize some people in the audience.

15 JUDGE WAHL: You may.

16 MS. LEVCHAK: I would like to recognize
17 Cliff Gjellstad, who is one of ten directors on
18 Basin Electric Power Cooperative's board of
19 directors. I'd like to recognize Bruce Carlson,
20 who is the general manager of Verendrye Electric,
21 the local distribution electric cooperative. I
22 would like to recognize Tom Meland, who is the
23 general manager of Central Power, Basin Electric's
24 Class A member. And I would also like to recognize
25 Mick Kossan, who is the chief financial officer for

1 Central Power. And I apologize, I think we have
2 some Verendrye Electric directors in the audience
3 that I have not met, but if you would rise. Thank
4 you very much.

5 Thank you, Your Honor.

6 JUDGE WAHL: Ms. Bendish, will you please
7 state your appearance for the record and identify
8 any member of the Commission staff who will also
9 participate in the hearing?

10 MS. BENDISH: I'm Annette Bendish, staff
11 counsel for the Public Service Commission. With me
12 at the table is Jerry Lein. He's an analyst with
13 the Commission.

14 JUDGE WAHL: If there is anyone present
15 other than Basin Electric Power Cooperative
16 witnesses who plans to testify or comment
17 concerning this application, we will do that upon
18 the completion of Basin Electric's presentation.

19 Allow me to emphasize the comments that
20 have been made by the Commissioners and tell you
21 that although these proceedings may be a bit more
22 formal than you are familiar with, that should not
23 discourage you from speaking to the Commission.

24 At the conclusion of Basin Electric's
25 presentation, I will recess the hearing for about

1 ten minutes or so, whatever time is necessary, and
2 anyone who thinks that they would like to speak to
3 the Commission may then meet with me, and I will be
4 happy to answer any questions that you would have
5 about your comments or your testimony to the
6 Commission.

7 If you have some papers, if you have a
8 map, or if you have some sort of documents that you
9 would like the Commission to consider that should
10 be made part of the record, we can take a look at
11 them, we can mark them as exhibits, and as you will
12 see Ms. Levchak do, I can help you to put those
13 exhibits in just as she -- as you will see her do.

14 I can't, of course, answer any questions
15 about Basin Electric's application nor can I
16 discuss with you the presentation that Basin
17 Electric has made, but I will help you in every way
18 that I can to facilitate your testimony and
19 comments to the Commission, and I hope if you have
20 anything to say to the Commission, that you will
21 feel free to do so.

22 Ms. Levchak.

23 MS. LEVCHAK: Thank you, Your Honor.
24 Commissioners, members of staff, ladies and
25 gentlemen, as I said earlier, my name is Deborah

1 Fohr Levchak and I'm staff counsel for Basin
2 Electric Power Cooperative.

3 On February 19, 2008, PrairieWinds North
4 Dakota 1, Inc., a wholly-owned subsidiary of Basin
5 Electric, submitted to the Public Service
6 Commission a letter notifying the Commission of its
7 intent to construct a 115.5 megawatt wind project
8 in north central North Dakota. Basin Electric also
9 requested the Commission to shorten the one-year
10 waiting period between filing a letter of intent
11 and the filing of an application for certificate of
12 site compatibility.

13 By a motion dated March 12, 2008, the
14 Commission acknowledged the letter of intent,
15 shortened the one-year waiting period between
16 filing a letter of intent and the siting
17 application to one day, assessed a filing fee of
18 \$100,000, and assigned the project Case No.
19 PU-08-75.

20 On March 6, 2009, Basin Electric submitted
21 an application for a certificate of site
22 compatibility for the PrairieWinds North Dakota 1
23 project, Ward County, North Dakota.

24 On April 22, 2009, the Public Service
25 Commission issued a notice of filing and notice of

1 hearing on Basin Electric's application and found
2 the application to be complete, conditioned on
3 Basin Electric filing a map detailing the proposed
4 final proposed locations for turbines and related
5 facilities on or before May 19, 2009.

6 On May 12, 2009, Basin Electric filed with
7 the Commission a certification relating to order
8 provisions, wind energy conversion siting,
9 regarding certain conditions to which Basin
10 Electric has agreed.

11 On May 19, 2009, Basin Electric delivered
12 to the Commission a map detailing the proposed
13 final locations for turbines and related
14 facilities.

15 Basin Electric's case in support of its
16 application for a certificate of site compatibility
17 will be presented today through four witnesses.
18 The first witness will be Mr. Ron Rebenitsch, the
19 project manager for the PrairieWinds North Dakota 1
20 project. Mr. Rebenitsch's testimony contains a
21 description of the nature and business of Basin
22 Electric Power Cooperative, the general location of
23 the project, and Basin Electric's position with
24 respect to the Public Service Commission's policy
25 criteria.

1 The second witness is Ms. Amanda Wangler,
2 the project engineer, who will testify to the
3 design of the project.

4 The third witness is Mr. Kevin Solie,
5 senior environmental analyst, who will testify on
6 environmental considerations.

7 The fourth witness is Mr. Mark Nygard,
8 construction manager, who will testify regarding
9 construction issues.

10 Sitting next to me is Darlene Steffan,
11 administrative secretary in the office of general
12 counsel of Basin Electric, who will assist me
13 today. Sitting next to Ms. Steffan is Ms. Casey
14 Jacobson, a staff attorney in the office of general
15 counsel at Basin Electric.

16 Just as an aside, our member, Verendrye
17 Electric, has very graciously agreed to provide
18 lunch, and everyone is welcome to lunch, and it
19 will be served in room number 301, which I
20 understand is directly above this room. The -- the
21 law judge has suggested that I find a convenient
22 place in the testimony to ask for a recess at which
23 we can all break and have lunch, and I will do so.

24 Thank you very much, Your Honor,
25 Commissioners, and that concludes my opening

1 statement.

2 JUDGE WAHL: All right. You may proceed
3 with your witnesses, Ms. Levchak.

4 MS. LEVCHAK: Your Honor, my first witness
5 is Mr. Rebenitsch.

6 JUDGE WAHL: Mr. Rebenitsch, as you are
7 undoubtedly aware, your testimony is required to be
8 under oath and I'm required by law to advise you
9 regarding perjury before administering the oath.
10 Perjury is a false statement of material fact which
11 you do not believe to be true, in other words,
12 generally speaking, a lie. In North Dakota perjury
13 is a Class C felony punishable by a fine up to
14 \$5,000, imprisonment for a period of up to 5 years,
15 or both.

16 (Witness sworn.)

17 JUDGE WAHL: Ms. Levchak.

18 **RON REBENITSCH,**
19 having been first duly sworn, was examined and
20 testified as follows:

21 **DIRECT EXAMINATION**

22 **BY MS. LEVCHAK:**

23 Q. Mr. Rebenitsch, please give us your name,
24 business address and your occupation.

25 A. My name is Ron Rebenitsch. I'm employed

1 as the manager of alternative technologies for
2 Basin Electric Power Cooperative, 1717 East
3 Interstate Avenue, Bismarck, North Dakota.

4 Q. Mr. Rebenitsch, please review your
5 employment history.

6 A. I've been employed by Basin Electric for
7 32 years. During that time I have held various
8 positions, including construction engineer, design
9 engineer, civil engineering supervisor and member
10 marketing manager. My current position, manager of
11 alternative technologies, focuses on development of
12 renewable energy resources and various forms of
13 distributed generation.

14 Q. Please state your educational background.

15 A. I have a Bachelor of Science degree in
16 civil engineering from North Dakota State
17 University with additional graduate courses in
18 environmental engineering. I also have an MBA from
19 the University of North Dakota.

20 Q. And what is your responsibility in
21 connection with Basin Electric's PrairieWinds North
22 Dakota 1 project?

23 A. I am the project manager. As project
24 manager I am responsible for oversight and
25 coordination of all aspects of the project,

1 including siting, engineering, permitting, land
2 leasing and environmental work.

3 Q. What is the purpose of your testimony at
4 this proceeding?

5 A. The purpose of my testimony is to provide
6 a description of Basin Electric Power Cooperative,
7 a summary of the proposed project and Basin
8 Electric's position with respect to the PSC policy
9 criteria.

10 Q. Would you please describe Basin Electric?

11 A. Basin Electric is a regional wholesale
12 electric generation and transmission cooperative,
13 organized under the laws of the State of North
14 Dakota and headquartered in Bismarck, North Dakota.
15 Basin Electric provides power to more than 120
16 member systems serving more than 2.6 million
17 consumers in nine states, including North Dakota.

18 Q. Please describe the proposed PrairieWinds
19 North Dakota 1 project.

20 A. The proposed project includes 77 General
21 Electric 1.5 megawatt model SLE wind turbines and
22 associated facilities in Ward County, North Dakota.
23 The project area is located south of Minot, North
24 Dakota. The project area includes approximately
25 30,000 acres; however, less than 100 acres will be

1 permanently affected by the turbines and new roads.

2 There will be an operations and
3 maintenance, O&M, building approximately
4 6500 square feet in size. The building will
5 contain office space for eight to ten employees,
6 spare parts and necessary equipment.

7 A collector substation will be located
8 adjacent to the interconnection to a 115 kV
9 transmission line owned by Western Area Power
10 Administration, Western, which is part of the
11 regional transmission grade grid. Since the
12 project collector substation is located adjacent
13 to the Western transmission line, no new
14 transmission line from the project to the regional
15 grid is required. This collector substation will
16 be located on the same site as the O&M building.

17 An underground collector system to deliver
18 the electricity from the turbines to the collector
19 substation and access roads will also be
20 constructed. Anemometer equipment to measure wind
21 velocities will also be included.

22 Q. How much power will this project generate?

23 A. The project will have a nameplate
24 generating capacity of 115.5 megawatts.

25 Q. Mr. Rebenitsch, what is the projected

1 construction schedule for this project?

2 A. Basin Electric is planning to start
3 construction this summer and complete the project
4 by the end of 2009 or the spring of 2010, depending
5 on permitting and weather.

6 Q. And what is the estimated cost of the
7 project?

8 A. The estimated project cost is
9 \$240 million.

10 Q. How was the location for the project
11 determined?

12 A. The process for selecting sites for the
13 wind project began with the analysis of existing
14 wind information for the region. A large number of
15 potential sites were investigated in three steps.

16 First, wind resource maps from the
17 National Renewable Energy Laboratory were analyzed
18 to identify all potential areas located within the
19 Basin Electric member service territory, which
20 contained a Class 5 or better wind regime. A Class
21 4 ranking suggests an average annual wind speed of
22 roughly 16 miles per hour at a height of 50 meters.

23 Second, the areas identified in the first
24 step were screened to identify all sites within a
25 reasonable proximity of the integrated system,

1 which is the regional bulk electrical transmission
2 system. The integrated system is Basin Electric's
3 primary transmission system, so it was important to
4 connect to that system. Within the integrated
5 system we also looked for sites with transmission
6 lines capable of carrying at least 100 megawatts of
7 power.

8 Finally, upon identifying several
9 potential sites, a general screening was performed
10 taking into account numerous factors, including
11 environment, human impacts, logistics,
12 accessibility and other concerns. After that
13 general screening, two of the sites were selected
14 as NEPA alternatives. Basin Electric then
15 commissioned TetraTech to perform a critical
16 environmental issues analysis for the two
17 alternative project sites.

18 Various resources, vegetation, water,
19 wetlands, soils, wildlife, cultural and community
20 issues, were quantified to assess potential
21 impacts. Both sites had potential impacts, impacts
22 to wetlands, federal wetland and grassland
23 easements, county/township zoning, et cetera, that
24 needed to be addressed. However, based on the
25 information collected, both sites appeared to be

1 viable for wind energy development. The preferred
2 site also avoided the need for construction of a
3 new transmission line.

4 Q. Was the wind resource for these two sites
5 further evaluated as well?

6 A. Yes. Data from temporary meteorological
7 towers was collected for over a year. The data
8 collected from these meteorological towers shows
9 the project area to have an excellent wind
10 resource.

11 (Exhibit 1 was marked for identification.)

12 Q. (MS. LEVCHAK CONTINUING) Mr. Rebenitsch,
13 I show you what has been marked as Exhibit 1. Can
14 you please identify it?

15 A. Yes. It is the project area site plan
16 map.

17 MS. LEVCHAK: I'm going to just stop for a
18 moment. For the Commissioners and the staff, as
19 you probably have already recognized, in the packet
20 behind each witnesses' prepared testimony are the
21 exhibits. The -- for the public, purely for
22 exemplary purposes, those exhibits have been made
23 much larger and are all along the wall.

24 Q. (MS. LEVCHAK CONTINUING) Mr. Rebenitsch,
25 how many personnel are expected to maintain and

1 operate the wind project?

2 A. We expect approximately eight to ten
3 personnel.

4 Q. Mr. Rebenitsch, please describe the need
5 for this wind project.

6 A. Basin Electric forecasts peak demand for
7 its membership to roughly double in the next
8 15 years. The load growth is driven mainly by
9 growth in the commercial sector, which includes
10 energy-related development in the form of coal, oil
11 and gas development, as well as increased loads in
12 the residential sector, which is occurring mainly
13 on the outskirts of larger cities within Basin
14 Electric's member service territory. While the
15 recent economic downturn will likely reduce the
16 estimated rate of load growth, load growth is
17 expected to remain strong and will require the
18 development of additional power supply sources.

19 In addition to expected load growth,
20 currently public policy is strongly encouraging
21 utilities to implement renewable portfolio
22 standards, or RPS, or goals. Within the region,
23 North Dakota, South Dakota, Minnesota, Montana and
24 Colorado have all legislated either standards or
25 goals for renewable or green power supply.

1 Wind generation meets these public policy
2 standards and goals for green and renewable
3 resources, as well as partially addressing the need
4 for additional power supply resources to meet Basin
5 Electric's load growth needs. It is generally
6 recognized that the wind resources in our member
7 service territory are excellent. In reviewing wind
8 resources and available transmission, a 115.5
9 megawatt wind project was determined to be the best
10 available, least-cost renewable resource to satisfy
11 future load and potential RPS requirements.

12 This project also addresses Basin
13 Electric's own green and renewable energy goals
14 which were adopted by our membership at our 2005
15 annual meeting.

16 MS. LEVCHAK: Thank you. And, excuse me,
17 I neglected to move for the admission of Exhibit
18 No. 1.

19 JUDGE WAHL: Ms. Bendish?

20 MS. BENDISH: No objection.

21 JUDGE WAHL: Exhibit 1 is received.

22 Q. (MS. LEVCHAK CONTINUING) Mr. Rebenitsch,
23 the Minot Air Force Base has facilities in the
24 project area. Have you communicated with the Air
25 Force regarding this project?

1 A. Yes. Our initial communications were
2 through our local member cooperative, Verendrye
3 Electric. Verendrye began communications with the
4 Air Force regarding this project in the spring of
5 2007. Over the past two years Basin Electric's
6 engineering division has coordinated miscellaneous
7 engineering issues, such as turbine locations,
8 clearances and cable crossings with Air Force
9 personnel.

10 On March 28, 2009, a representative from
11 Verendrye Electric and I met with senior Air Force
12 staff at the base to provide an update on the
13 project. In response to some technical questions
14 from the Air Force, Basin Electric committed to add
15 FAA lights to certain turbines.

16 Q. Please address the decommissioning of the
17 project.

18 A. At the end of its useful life, the project
19 will be decommissioned in accordance with the North
20 Dakota PSC rules addressing decommissioning of the
21 wind energy facilities.

22 Q. Thank you. Mr. Rebenitsch, I'm now going
23 to ask you a series of questions relating to the
24 PSC's policy criteria. What is Basin Electric's
25 policy concerning the training and utilization of

1 available labor in North Dakota for the general and
2 specialized skills required?

3 A. Basin Electric has a long-standing policy
4 of recruiting and training workers from North
5 Dakota. We have developed a partnership with
6 Bismarck State College to provide the coursework
7 for our apprenticeship programs in both our
8 transmission system maintenance division and power
9 plant maintenance areas. We also work with the
10 University of North Dakota, North Dakota State
11 University, University of Mary, Bismarck State
12 College, and North Dakota State College of Science
13 to fill internships and full-time
14 vocational/technical and professional positions.

15 In addition, we recently established a
16 Grow Your Own Program through Bismarck State
17 College in which students who are enrolled in the
18 power plant technician Associate degree program may
19 apply and be selected for opportunities to work two
20 paid internships at our power plants. Basin
21 Electric committed to hire up to five students at
22 each of our power plants beginning the fall
23 semester of 2009.

24 Basin Electric staff members also sit on
25 advisory boards for various programs at Bismarck

1 State College.

2 Q. Would you please tell the Commission what
3 type of commitment Basin Electric has to North
4 Dakota consumers regarding this project?

5 A. Basin Electric is contractually committed
6 to meet all of the supplemental power requirements
7 for the 14 North Dakota rural electric cooperatives
8 that are our members. Our contracts provide for
9 Basin Electric to supply all power requirements
10 above the members' power supply allocation from
11 Western Area Power Administration.

12 Q. What is Basin Electric's policy regarding
13 labor relations?

14 A. Basin Electric management maintains an
15 equitable, fair and harmonious relationship with
16 labor. Basin Electric uses both union and nonunion
17 contractors.

18 Q. Has Basin Electric involved local
19 government entities and citizens in the planning
20 process?

21 A. Basin Electric initiates and maintains
22 contact with all pertinent federal, state, and
23 local agencies prior to construction of a facility.
24 The public was also involved in this project by RUS
25 conducting a public scoping meeting and Basin

1 Electric mailing information and visiting
2 landowners.

3 Q. Mr. Rebenitsch, the Commission notice of
4 this hearing listed the following three issues to
5 be considered. Based on your knowledge of the
6 project, do you believe the location, construction
7 and operation of the proposed facilities produce
8 minimal adverse effects on the environment and upon
9 the welfare of the citizens of North Dakota?

10 A. Yes.

11 Q. Are the proposed facilities compatible
12 with the environmental preservation and the
13 efficient use of resources?

14 A. Yes.

15 Q. Will the proposed facility locations
16 minimize adverse human and environmental impact
17 while ensuring continuing system reliability and
18 integrity and ensuring that energy needs are met
19 and fulfilled in an orderly and timely fashion?

20 A. Yes.

21 Q. Does this complete your direct testimony?

22 A. Yes.

23 MS. LEVCHAK: Your Honor, this witness is
24 available for cross.

25 JUDGE WAHL: Questions, Ms. Bendish?

1 MS. BENDISH: I don't have any questions,
2 but Mr. Lein does have one, if it would be
3 appropriate for him to ask.

4 JUDGE WAHL: Mr. Lein.

5 **CROSS-EXAMINATION**

6 **BY MR. LEIN:**

7 Q. I was going to ask about the environmental
8 assessment. Would you be a good witness to maybe
9 explain what the process is and schedule and would
10 you expect a finding of no significant impact to be
11 an issue?

12 A. I would prefer to defer that to a later
13 witness, the environmental expert that we have.

14 Q. Okay. Sure. And one other question I had
15 was you mentioned an anemometer being installed to
16 measure wind speeds.

17 A. That is correct.

18 Q. Do you know if that will be marked with
19 some kind of guide?

20 A. Our current plans for the anemometer,
21 future -- the long-term anemometer, permanent
22 anemometer, will be for either an unguide
23 structure, independent standing, or other possible
24 technologies. We will not have an unguide
25 marked -- we will not have a guide tower that is

1 unmarked.

2 Q. Would the tower, itself, be marked to
3 identify it for spraying from the air?

4 A. Yes. The tower would be marked.

5 Q. How would that be marked?

6 A. At this point in time we are still
7 evaluating alternative technologies, a LIDAR or a
8 SODAR system, which would not involve a tower. If
9 we do put up a tower, we would mark it as required
10 by FAA.

11 MR. LEIN: That's all the questions I have
12 at this time. Thanks, Ron.

13 JUDGE WAHL: Questions from the
14 Commissioners? Commissioner Clark.

15 COMMISSIONER CLARK: I do have just a
16 couple, and my first one actually has to do with
17 that anemometer issue.

18 **EXAMINATION**

19 **BY COMMISSIONER CLARK:**

20 Q. You said sonar or -- what was the other
21 one? Could you describe the different ways that
22 you might potentially measure wind speed?

23 A. There are developing technologies that are
24 being shown to be fairly -- reasonably accurate
25 wherein you use either sonar waves or light waves,

1 and the technology will measure the wind speeds
2 above the device.

3 Q. If you do go the tower route, is this a
4 tower that would be basically permanent and fixed
5 or are these fairly mobile and you actually move it
6 around the site?

7 A. If we go the tower route, they would be --
8 it would be permanent and fixed.

9 Q. Okay. Now, you had mentioned that you
10 would mark it according to all FAA regulations. I
11 know one of the concerns and the reason that I'm
12 sure Jerry asked it, and you probably may take a
13 few more questions about this, is the Commission
14 has had some fairly significant contact from aerial
15 applicators in past applications with concerns
16 about the met towers specifically. I mean, the wind
17 turbines, I think, cause them some concern, but
18 they're fairly visible, they're easy to see, and
19 they can work around them. It might have an impact
20 on how they would approach a particular producer's
21 land, but at least from a safety standpoint they
22 can see them, but we do have specific concerns that
23 they bring to us about the met towers because
24 they're less visible, and even they have some
25 concerns that the FAA regulations themselves may

1 not be adequate to take care of the concern they
2 have.

3 Have you had contact from aerial
4 applicators, associations, anyone else expressing
5 concerns with met tours, either in this field or in
6 others that Basin may be looking at?

7 A. No, I have not.

8 COMMISSIONER CLARK: Okay. I think that
9 ends all my questions. I do want to thank you,
10 though, for taking the time to meet with Minot Air
11 Force Base. I know it was probably six or eight
12 months ago or something like that that I had
13 traveled to the Air Force base, as well, and had a
14 conversation with them just about energy
15 development in general and the potential impact
16 that energy development, not just wind towers, but
17 pipelines and all sorts of other things could have
18 on their operations, and certainly this project was
19 one of the ones that I thought of when, as we got
20 into our discussions -- and I know the Air Force
21 personnel came to Bismarck and also had a similar
22 conversation with the Commission as a whole in
23 November. So I just want to thank you and
24 certainly appreciate that interaction that you've
25 had with them.

1 THE WITNESS: Thank you.

2 JUDGE WAHL: Commissioner Cramer.

3 **EXAMINATION**

4 **BY COMMISSIONER CRAMER:**

5 Q. Along those lines, Ron, did -- are there
6 any Air Force facilities in the footprint of the
7 wind farm?

8 A. There is an underground missile silo
9 within the footprint of the project -- within the
10 project area.

11 Q. Now, just so I'm clear, the distinctive
12 factor between the final two sites was that this
13 preferred site didn't require any more
14 transmission; is that accurate?

15 A. That is generally accurate. The site that
16 we selected did not involve transmission line. The
17 other site would have involved transmission --
18 several miles of transmission line.

19 Q. And the reason I ask that is then, of
20 course, having a PrairieWinds ND1 project implies
21 that there could be a 2, 3, 4 or something like
22 that. Is it too soon to suggest -- talk about the
23 possibility that there would be any addition to
24 this?

25 A. Yes.

1 COMMISSIONER CRAMER: Well, I'm in no
2 position to compel you to a more thorough answer.
3 So, anyway, that's all I have. Thank you.

4 JUDGE WAHL: Any further questions from
5 the Commission? Commissioner Kalk.

6 COMMISSIONER KALK: Just kind of a
7 follow-up question about the air base.

8 **EXAMINATION**

9 **BY COMMISSIONER KALK:**

10 Q. Did the air base submit anything in
11 writing that they were okay with this or was it all
12 verbal? I was unable to find that in your --

13 A. We have e-mails from the air base that
14 were initially conveyed through Verendrye Electric
15 to us giving us essentially a go-ahead.

16 Q. Sure. Being new to the Commission in
17 January, I was not able to be at those meetings in
18 November, but I guess my one concern I'll put out
19 there is in having 20 years in the Marine Corps and
20 working some of the issues on the DOD side, is that
21 oftentimes the people that make the decision
22 weren't the right people that could make that
23 decision. It had to be high enough up in the Air
24 Force to make the decision, and the concern that we
25 not jeopardize the future use of the Minot Air

1 Force Base without someone senior enough at the Air
2 Force making that decision, and that's where I
3 would look forward to seeing something a little
4 more formal at some point in time on that and
5 exactly what their thoughts were. Maybe if you
6 could answer that question or --

7 A. We had met with the base commander. Bruce
8 Carlson, the manager of Verendrye Electric,
9 established a meeting, and actually there were
10 several colonels there at the last meeting that I
11 had. We've also maintained ongoing communications
12 with lower level personnel on such things as the
13 cable crossings and other issues.

14 Q. Well, that -- like I said, I wasn't at
15 that meeting in November, but the colonels are
16 probably, in my opinion, not senior enough to be
17 able to make those decisions for the future of the
18 Minot Air Force Base. So I'd look forward to
19 finding some more information from someone a little
20 more senior that this will have no effect on the
21 future of Minot Air Force Base.

22 A. We can provide a copy of the e-mail that
23 we received from the base leadership.

24 JUDGE WAHL: Is that satisfactory,
25 Commissioner?

1 COMMISSIONER KALK: I guess I'll have to
2 ask the question to my legal folks here. How does
3 it work here now if -- I would think I'll need more
4 information on this question. If that e-mail
5 doesn't suffice, then how do we walk that back
6 through?

7 MS. BENDISH: I think they can file the
8 letter as requested as a late-filed exhibit, and if
9 you want additional information, staff can make
10 that information request and ask for additional
11 information from them before we issue our findings
12 of fact, conclusions of law and order.

13 COMMISSIONER KALK: It's very thorough
14 work here, and I think if I'd have asked this
15 question back in November, you'd have had this
16 information here today.

17 MS. LEVCHAK: Just for -- just for
18 clarification, Commissioner, is the letter from the
19 base commander sufficient? I'm unfamiliar with
20 the --

21 COMMISSIONER KALK: I'm going to have to
22 do a little -- my initial thoughts would be a
23 letter from the base commander is probably not
24 sufficient because the base commander will come and
25 go, and the -- someone a little more senior from

1 the Air Force installation logistics to say that
2 this will not affect the future use of Minot Air
3 Force Base would be something that I would --
4 obviously these type of projects are great, but we
5 also have to find that balance in there.

6 MS. BENDISH: Am I understanding you
7 correct, Commissioner, you want to see a copy of
8 what they have right now, and if that isn't
9 satisfactory to ease your concerns, then we can ask
10 for something additional?

11 COMMISSIONER KALK: Because typically --
12 that is correct. Because typically the base
13 commander would not know the future plans of the
14 Air Force base in Minot, and with all the work that
15 we've done as our delegation and our governor to
16 keep our Air Force bases viable, we want to make
17 sure we find the right growth to put these wind
18 towers in the right spots to make sure that we can
19 always keep Minot Air Force Base flourishing with
20 the future opportunities that might come our way,
21 Predators or whatever else it might be.

22 JUDGE WAHL: For the record, Ms. Levchak,
23 the late-filed exhibit will be Exhibit 2 and will
24 assist of copies of e-mails or other documentation
25 which shows the approval of the Minot Air Force

1 Base for the appropriate project.

2 COMMISSIONER KALK: That's the only
3 question.

4 JUDGE WAHL: Any further questions?
5 Commissioner Cramer.

6 COMMISSIONER CRAMER: Thank you.

7 **FURTHER EXAMINATION**

8 **BY COMMISSIONER CRAMER:**

9 Q. Your Honor, along those lines I did
10 read -- you had a list, I think, larger than our
11 normal list of people to be noticed. Did that list
12 include the Minot Air Force Base?

13 A. Yes.

14 Q. And so the Minot Air Force Base certainly
15 would have had -- the U.S. Air Force or the
16 Department of Defense would have had an opportunity
17 to intervene had they had greater concerns than are
18 being expressed today?

19 A. Yes. I'm going to defer to Kevin Solie,
20 who's a future -- he's going through his list as we
21 speak. And he just indicated to me that that was
22 not on that list. I stand corrected.

23 COMMISSIONER CRAMER: Okay. Nothing else.

24 JUDGE WAHL: Any further questions from
25 the Commission? Followup, Ms. Levchak?

1 MS. LEVCHAK: No, Your Honor. Obviously,
2 we will provide the late-filed exhibit in a very
3 timely way, and if the Commission needs any further
4 information, if they could let us know as soon as
5 possible, we'd appreciate that as well.

6 JUDGE WAHL: Any followup, Ms. Bendish?

7 MS. BENDISH: I have nothing.

8 JUDGE WAHL: Thank you very much, Mr.
9 Rebenitsch. Your next witness, Ms. Levchak.

10 MS. LEVCHAK: Your Honor, my next witness
11 is Amanda Wangler.

12 JUDGE WAHL: Ms. Wangler, your testimony
13 is required to be under oath and I'm required by
14 law to advise you regarding perjury before
15 administering the oath. Perjury is a false
16 statement of material fact which you do not believe
17 to be true, in other words, generally speaking, a
18 lie. In North Dakota perjury is a Class C felony
19 punishable by a fine up to \$5,000, imprisonment for
20 a period of up to 1 year, or both.

21 (Witness sworn.)

22 JUDGE WAHL: Ms. Levchak.

23 MS. LEVCHAK: Thank you, Your Honor.
24
25

1 **AMANDA WANGLER,**

2 having been first duly sworn, was examined and
3 testified as follows:

4 **DIRECT EXAMINATION**

5 **BY MS. LEVCHAK:**

6 Q. Ms. Wangler, please give us your name,
7 business address and your occupation.

8 A. My name is Amanda Wangler. I am employed
9 as an electrical engineer by Basin Electric Power
10 Cooperative, and my business address is 1717 East
11 Interstate Avenue, Bismarck, North Dakota.

12 Q. Please state your educational background.

13 A. I received a Bachelor of Science degree in
14 electrical engineering from North Dakota State
15 University in 2003. I am also a registered
16 professional engineer in the State of North Dakota
17 and a member of the Institute of Electronics and
18 Electrical Engineers.

19 Q. What is your responsibility in connection
20 with the PrairieWinds North Dakota 1 project?

21 A. I am the project engineer. As project
22 engineer I am responsible for coordination of all
23 aspects of the project's engineering activities,
24 including wind studies, micrositng, electrical
25 engineering for the collector system and collector

1 wind speed of up to 25 meters per second or
2 56 miles per hour but can withstand short wind
3 gusts of over 45 meters per second or 100 miles per
4 hour while operating. When these operating
5 conditions are exceeded, the wind turbine will shut
6 down.

7 (Exhibit 3 was marked for identification.)

8 Q. (MS. LEVCHAK CONTINUING) Ms. Wangler,
9 please examine this document marked Exhibit No. 3
10 and please identify it.

11 A. It is a representation of the GE
12 1.5 megawatt wind turbine I have just described.

13 MS. LEVCHAK: Your Honor, I'd move for
14 admission of Exhibit No. 3.

15 JUDGE WAHL: Ms. Bendish?

16 MS. BENDISH: No objection.

17 JUDGE WAHL: Exhibit 3 is received.

18 Q. (MS. LEVCHAK CONTINUING) Ms. Wangler,
19 would you please describe the foundations for the
20 turbines?

21 A. The turbine foundations will be the
22 spread-footing type. They will have 320 yards of
23 concrete. The foundations will be approximately 8
24 feet deep and approximately 30 feet in diameter.
25 Foundation design is based on geotechnical work at

1 each turbine site.

2 Q. What are some of the features of these
3 turbines?

4 A. Each turbine will house a complex control
5 system with communications and electronic
6 circuitry. The control system utilizes a
7 supervisory control and data acquisitions, SCADA,
8 technology. Each turbine uses the SCADA system,
9 along with wind sensors to signal operation of the
10 turbine in the most efficient and effective manner.

11 The electricity generated by the turbine
12 is delivered to a pad mount transformer sitting
13 next to each turbine. The transformer increases
14 the turbine generator voltage to the collector
15 system voltage of 34.5 kV. The turbines also have
16 a lightning protection system that grounds the
17 turbines to prevent damage in case of a lightning
18 strike.

19 Q. Please describe a collector system.

20 A. A collector system electrically connects
21 all the wind turbines together and transmits that
22 electricity to the collector substation via 34.5 kV
23 power cables. The power cables vary in size from 1
24 aught to 1,000 MCM and are made primarily of
25 aluminum with a small amount of copper. There will

1 be approximately 30 miles of three-phase power
2 cable buried as part of the collector system.
3 Buried alongside the power cables are fiberoptic
4 cables that carry communications information from
5 each turbine back to the collector substation.

6 Q. And how deep are these cables buried?

7 A. The cables will be buried a minimum of
8 four feet deep. The warning tape placed
9 approximately three feet deep.

10 Q. How are the cables routed throughout the
11 project area?

12 A. The cables are buried in the most direct
13 route between the turbines avoiding wetlands and
14 cultural resources. There are five collector
15 circuits in the project, so the cables connect the
16 substation to the turbines in each circuit.

17 Q. And how are the individual turbines sited?

18 A. Basin Electric used a software package
19 called WindPro. WindPro takes the data from all
20 five temporary met towers, topographic data and
21 surface roughness to create a wind model. This
22 model then uses exclusion areas and designated
23 setback criteria to place the turbines in the most
24 efficient manner. The software also takes into
25 account the placement of other turbines in the

1 project. Placing the turbines too close together
2 will hinder the power production due to downwind
3 wake effects.

4 Q. What setbacks did Basin Electric use when
5 siting these turbines?

6 A. 400 feet from public roads, section lines,
7 distribution powerlines and high-voltage
8 transmission lines.

9 1,000 feet from occupied residences based
10 on an earlier PSC wind farm order.

11 Out of the Worst Case Frenel Zone of
12 microwave paths.

13 One-half mile from the missile silo.

14 Out of the hydric soils of wetlands.

15 500 feet from a wetland greater than
16 50 acres.

17 And a quarter of a mile from waterfowl
18 production areas.

19 Q. Did the siting of any of the turbines
20 diverge from these setbacks?

21 A. Yes. Three turbines were sited closer
22 than 400 feet from a road or section line. A-16,
23 located in Section 13 of Gasman Township, is
24 145 feet from the road right-of-way.

25 E-74, located in Section 14 of Rushville

1 Township, is 240 feet from the road right-of-way.

2 B-19, located in Section 22 of Gasman
3 Township, is 220 feet from the road right-of-way.

4 In all three of these cases only very
5 lightly traveled section lines or trails are near
6 the turbine sites. Ward County has a zoning
7 ordinance that required Basin Electric to apply for
8 variances for these three turbines. Ward County
9 granted those variances on April 7, 2009.

10 Q. Ms. Wangler, you testified that Basin
11 Electric used a 1,000-foot setback from occupied
12 residences based on an early PSC order. Has there
13 been an update to that position?

14 A. Yes. We understand that in more recent
15 wind farm orders the PSC has approved 1400-foot
16 setbacks from occupied residences.

17 Q. Can you tell the Commission if any of the
18 proposed turbine sites are within 1400 feet of an
19 occupied residence?

20 A. Yes. One turbine has been proposed within
21 1400 feet of an occupied residence. Turbine E-71,
22 located in Section 12 of Iota Flat Township, is
23 1,030 feet from the occupied residence. The owner
24 and resident of this occupied residence is also the
25 owner of the land on which the turbine would be

1 located. The landowner/resident has granted a
2 lease to Basin Electric and will receive payment on
3 the turbine. He has also been -- he has also given
4 his specific written consent to this location.

5 The wind efficiency of the particular area
6 drops off rapidly with movement away from the
7 residence. In addition, one other turbine within
8 900 feet of E-71 would also be impacted by a move.

9 Unfortunately, any movement away from the
10 occupied residence would cause a relocation of this
11 turbine to another landowner.

12 Q. Thank you. Are microwave paths or other
13 wireless communications a factor in siting wind
14 turbines?

15 A. Yes. Basin Electric hired ComSearch who
16 performed a search of all FCC licensed
17 communications, including microwave, AM/FM
18 stations, TV stations and other wireless
19 technologies. ComSearch also coordinated a letter
20 to the National Telecommunications Information
21 Administration to verify that turbine placement
22 would not affect any federally-held communications
23 licenses.

24 Q. Ms. Wangler, Mr. Rebenitsch referred to
25 Basin Electric's coordination with the Minot Air

1 Force Base. What specific work have you
2 coordinated?

3 A. During the design process, Basin Electric
4 provided the Air Force cable affairs division with
5 proposed locations of turbines and also the
6 proposed cable layout. Through several revisions
7 Basin Electric was able to shift turbines away from
8 the military cable and minimize the number of
9 crossings of the project collector cable with the
10 Air Force's communications cables. We also have
11 had other discussions with other Air Force
12 personnel concerning turbines near a missile silo
13 in the project area.

14 Q. Are there any special conditions for the
15 turbines located near the missile site?

16 A. We have agreed to place FAA obstruction
17 lights on all turbines near the missile silo. This
18 will assist in the safe operation of Air Force
19 helicopters near the missile site.

20 Q. Ms. Wangler, can you please explain what
21 the expression "shadow flicker" means as related to
22 a wind turbine?

23 A. A shadow flicker occurs under a special
24 set of conditions when the sun passes behind the
25 blades of a wind turbine and casts a shadow over

1 the surrounding areas. When the blades rotate,
2 shadows pass over the same point causing an effect
3 called shadow flicker.

4 Q. Please explain how you calculate the
5 shadow flicker.

6 A. A shadow flicker analysis uses geometry
7 and site specific data inputs to determine an
8 estimated number of hours per year that a
9 flickering shadow can be cast on a given window or
10 viewing area. Basin Electric uses a program called
11 WindPro to model the amount of flicker to be
12 expected at each occupied residence. WindPro uses
13 the location of the sun in the sky, times and
14 duration of a turbine operation, direction of the
15 wind, likelihood of sunshine, terrain and landscape
16 of area and obstacles, such as trees and buildings,
17 in the line of site to model this phenomenon.

18 Q. Are there industry standards as to what
19 constitutes an acceptable level of shadow flicker?

20 A. Yes. An industry standard adopted from
21 Europe states that any residences experiencing more
22 than 30 hours of shadow flicker per year should be
23 mitigated.

24 Q. And does the calculated shadow flicker
25 from this project's turbines fall within that

1 standard?

2 A. Yes. For this project the maximum
3 exposure to shadow flicker on an occupied residence
4 is projected to be less than 16 hours per year.

5 Q. Ms. Wangler, can you please explain the
6 cause of turbine noise?

7 A. Turbines generate two types of noise,
8 aerodynamical and mechanical. Aerodynamic noise is
9 caused by the blades passing through the air. The
10 noise radiates perpendicular to the rotation of the
11 blades. Mechanical noise is generated by turbines'
12 internal gears. Newer model wind turbines have
13 limited the amount of mechanical noise by
14 installing insulation and noise dampening
15 equipment.

16 Q. How is turbine noise measured?

17 A. Sound pressure levels, or noise, are
18 measured in decibels. The decibel scale is a
19 logarithmic scale relative to the human threshold
20 of hearing. ANSI, EPA, ISO and OSHA all base their
21 recommendations off these sound pressure levels.
22 Because these dB levels are logarithmic they do not
23 add as for linear numbers. Doubling the sound
24 power increases the sound pressure level by three
25 dB.

1 When noise is measured, we are measuring
2 the amount of pressure that sound exerts on the
3 receiver, then that pressure is related to a dB
4 scale. The decibel scales are also affected by
5 frequency. These frequency changes change people's
6 perception of the sound, so sound engineers use a
7 weighted scale to combat against this perception.
8 The "A" weighted scale is the most commonly used
9 for noise assessments and for specifying exposure
10 limits.

11 Q. What factors affect the radiated noise
12 power from a turbine?

13 A. There are six factors that have to be
14 evaluated to determine the amount of noise directed
15 to a point of interest. They are:

16 Number one, wind speed: The amount of
17 wind hitting the turbine at an instance being
18 evaluated.

19 Number two, ground attenuation: The
20 foliage or buildings that can absorb or disrupt the
21 sound waves.

22 Number three, topography: Details the
23 ground elevations from one point to another.

24 Number four, equipment: The type and
25 model of a wind turbine and the manufacturer's

1 technical documentation.

2 Number five, noise receptor distance:
3 Distance from a point of interest to a turbine
4 location.

5 Number six, ambient noise: The amount of
6 noise found naturally in the area at certain wind
7 speeds.

8 Q. Did Basin Electric conduct a noise study
9 using these factors?

10 A. Yes. Basin Electric used software called
11 WindPro to do the modeling. WindPro used the ISO
12 9613-2 General, a nationally recognized standard in
13 calculating attenuation during propagation.

14 All factors were used with the exception
15 of ambient wind noise. Any ambient noise would
16 only help to mask the noise from a turbine and
17 lessen the impact on the point of interest.

18 All noise receptors, which in this case
19 were occupied residences, showed no modeled wind
20 turbine noise above 50dB(1), and the vast majority
21 were under 45dB(A).

22 Q. Okay. Thank you. Please describe the
23 types of roads needed for the project.

24 A. Turbine access roads for construction
25 purposes will be constructed at a width of 36 feet

1 for the project. There are approximately 35 miles
2 of new turbine access roads and upgraded roads.
3 Existing roads and section lines will need to be
4 upgraded to facilitate construction. These roads
5 will be restored to previous condition or better at
6 the conclusion of construction.

7 Q. Please describe the permanent roads for
8 the project.

9 A. The permanent turbine access roads will be
10 constructed at a width of 16 feet for the project.
11 There are approximately 25 miles of permanent
12 turbine access roads.

13 Q. How were the locations for those roads
14 determined?

15 A. The roads were routed to minimize
16 distance, avoid wetlands, avoid cultural resources,
17 minimize the impact to farming and stay within the
18 elevation slopes or grades required for turbine
19 deliveries and crane walks.

20 Q. And what is a crane walk?

21 A. There are areas on the project where it is
22 more efficient to move the crane from turbine to
23 turbine in a route that is not on a road. The
24 crane moves very slowly and is quite sensitive to
25 elevation changes and topography.

1 Q. All right. Thank you. Would you please
2 describe the general arrangement of the collector
3 substation?

4 A. The 34.5 kV portion of the collector
5 substation connects five feeders together. The
6 34.5 kV to 115 kV transformer steps up the
7 collector system voltage to the transmission
8 voltage on the Western transmission line. There is
9 one slack span of cable that connects the 115 kV
10 side of the substation to the Nelson Tap.

11 The collector substation also includes one
12 25-foot-by-50-foot building to enclose the
13 protection and control equipment, station
14 batteries, station service power equipment and
15 communications equipment.

16 The entire facility will be fenced with
17 seven feet of chain-link fence topped with one foot
18 of three strands of barbed wire. The dimensions of
19 the fenced area will be approximately 320 feet by
20 150 feet, slightly over 1.1 acres.

21 Q. Ms. Wangler, please describe the general
22 arrangement of the operations and maintenance
23 building.

24 A. The maintenance building is divided into
25 two main areas. There is an office space that

1 includes a break room, locker area, electrical and
2 mechanical rooms and office space. The remaining
3 portion of the building has space to park trucks, a
4 large piece of machinery and various work benches.
5 There is also a mezzanine that will be used for
6 spare parts storage.

7 (Exhibit 4 was marked for identification.)

8 Q. (MS. LEVCHAK CONTINUING) Ms. Wangler, I'm
9 going to show you a document marked Exhibit 4 and
10 ask you to please identify it.

11 A. It is a site layout drawing that
12 identifies the property boundaries and the relative
13 locations of the collector substation, the
14 communications tower, and O&M building and
15 associated access roads. The area covers
16 approximately 30 acres.

17 MS. LEVCHAK: Thank you. Your Honor, I'd
18 move for admission of Exhibit No. 4.

19 JUDGE WAHL: Ms. Bendish?

20 MS. BENDISH: No objection.

21 JUDGE WAHL: Exhibit 4 is received.

22 Q. (MS. LEVCHAK CONTINUING) And will these
23 be manned or unmanned facilities?

24 A. The collector substation facility is
25 intended to be unmanned. Maintenance personnel

1 will access the substation on occasion to conduct
2 maintenance. The O&M building will be manned.

3 Q. Thank you. Does this conclude your direct
4 testimony?

5 A. Yes.

6 MS. LEVCHAK: Thank you. Your Honor, this
7 witness is available for cross.

8 JUDGE WAHL: Questions, Ms. Bendish?

9 **CROSS-EXAMINATION**

10 **BY MS. BENDISH:**

11 Q. Ms. Wangler, you indicated in your
12 testimony that there was one residence that was
13 within 1400 feet but outside of 1,000, but that
14 landowner had consented and had -- consented in
15 writing to Basin Electric for placement of that
16 tower; correct?

17 A. Yes.

18 Q. Have you filed a copy of that consent with
19 the Commission?

20 A. We have not, but it is available.

21 Q. Would you be willing to file a copy of
22 that consent?

23 A. Yes.

24 JUDGE WAHL: For the record, Ms. Levchak,
25 that will be late-filed Exhibit No. 5.

1 MS. BENDISH: I have no further questions.

2 JUDGE WAHL: Questions from the

3 Commission? Commissioner Clark.

4 **EXAMINATION**

5 **BY COMMISSIONER CLARK:**

6 Q. You'd mentioned the footings underneath
7 the towers themselves and that they're eight-feet
8 deep. Is that eight feet from the surface or where
9 did the footings start? Are they subsurface or are
10 they at the surface?

11 A. That would be eight feet from the grade.
12 Under the foundation is a small mud mat, also, so
13 the finished grade eight feet down plus a small
14 mat.

15 Q. Okay. The PSC rules for decommissioning,
16 I think, require things like footings to be taken
17 down to -- is it three or four feet? I can never
18 remember.

19 MR. LEIN: Three, I think.

20 Q. (COMMISSIONER CLARK CONTINUING) Three
21 feet. Is it possible when you're working with that
22 kind of concrete to do that, to shave off three
23 feet of it as you reclaim it or does that create
24 problems?

25 A. The foundations are a cone and then it

1 comes down and spreads out under that. So I
2 believe it comes down quite a ways so you wouldn't
3 have to take out the whole foundation.

4 Q. Okay.

5 A. I don't know how that would be done upon
6 decommissioning.

7 Q. Okay. Thanks. Are you familiar, does
8 Ward County have any siting ordinances related to
9 wind facilities?

10 A. That's probably better answered by a later
11 witness.

12 Q. And you had mentioned the decibel levels
13 that were expected to be recorded. Was that -- I
14 assume the levels that you were discussing were
15 levels that were found outside of the occupied
16 residence, not inside the residence?

17 A. That's correct. It would be the outside
18 corner of the residence.

19 COMMISSIONER CLARK: All right. That's
20 all I have. Thanks.

21 JUDGE WAHL: Any further questions from
22 the Commission? Commissioner Cramer.

23 **EXAMINATION**

24 **BY COMMISSIONER CRAMER:**

25 Q. I'd just like to clarify, you testified

1 the setback being 400 feet from a road and then I
2 see in the application 390 from the road
3 right-of-way, so I guess that would -- could you
4 kind of clarify that for me just to make sure I
5 have that right?

6 A. We used 400 feet from the road
7 right-of-way.

8 COMMISSIONER CRAMER: Okay. Very good.
9 Thank you.

10 JUDGE WAHL: Any further questions from
11 the Commission? Commissioner Clark.

12 **FURTHER EXAMINATION**

13 **BY COMMISSIONER CLARK:**

14 Q. Just to follow up on that, except in those
15 three cases that you had mentioned; correct?

16 A. That is correct.

17 Q. Was there concern expressed or were you
18 familiar at the -- was it a township or the
19 zoning -- wherever the zoning meeting was regarding
20 having facilities that close?

21 A. That's better answered by a later witness
22 also.

23 Q. Who would that be?

24 A. Kevin Solie. He was actually at those
25 meetings.

1 COMMISSIONER CLARK: Okay. Thanks.

2 JUDGE WAHL: Any further questions from
3 the Commission? Followup, Ms. Levchak?

4 MS. LEVCHAK: I have no followup.

5 JUDGE WAHL: Followup, Ms. Bendish?

6 MS. BENDISH: No.

7 JUDGE HOBERG: Thank you very much, Ms.
8 Wangler. Ms. Levchak.

9 MS. LEVCHAK: Well, as a matter of
10 personal comfort and because this next witness will
11 take some time, this might be the ideal time to
12 take our recess.

13 JUDGE WAHL: This might be indeed. We
14 will be in recess until -- let's begin again at a
15 quarter to -- at a quarter to one, and let me say,
16 also, that if there's anybody who wishes to speak
17 to me about commenting or testifying to the
18 Commission, you may catch me any time. There's no
19 need to wait until -- until the conclusion of Basin
20 Electric's testimony. We'll be in recess until
21 12:45.

22 (Noon recess taken.)

23 JUDGE WAHL: This is the continuation of
24 the hearing in the matter of the application of
25 Basin Electric Power Cooperative, Inc., for a

1 certificate of site capability for the construction
2 of a wind energy facility in Ward County, North
3 Dakota, Public Service Commission Case No.
4 PU-08-75.

5 With the consent and agreement of counsel
6 and the Commission, I will take the testimony of
7 the -- and comment of members of the public who
8 wish to speak to the Commission on this matter out
9 of order beginning now. If there's anybody present
10 who has a presentation for the Commission, please
11 come forward. Please state your name for the
12 record.

13 MR. GRONINGER: My name is Delwyn
14 Groninger.

15 JUDGE WAHL: Will you spell your name,
16 please, Mr. Groninger?

17 MR. GRONINGER: Yes. D-e-l-w-y-n,
18 G-r-o-n-i-n-g-e-r.

19 JUDGE WAHL: What is your residence
20 address, Mr. Groninger?

21 MR. GRONINGER: I'm a resident of rural
22 Des Lacs, North Dakota, 15815 Fourth Avenue
23 Northwest. Actually, my post -- letters come out
24 of Burlington.

25 JUDGE WAHL: And your post office address

1 is?

2 MR. GRONINGER: Burlington, 58722.

3 JUDGE WAHL: Mr. Groninger, as you have
4 heard me advise previous witnesses, your testimony
5 is required to be under oath and I'm required by
6 law to advise you regarding perjury before
7 administering the oath. Perjury is a false
8 statement of material fact which you do not believe
9 to be true, in other words, generally speaking, a
10 lie. In North Dakota perjury is a Class C felony
11 punishable by a fine of up to \$5,000, imprisonment
12 for a period of up to 5 years, or both.

13 (Witness sworn.)

14 JUDGE WAHL: You may proceed.

15 **DELWYN GRONINGER,**

16 having been first duly sworn, was examined and
17 testified as follows:

18 MR. GRONINGER: I welcome the opportunity.
19 I thank you for coming to Minot here. I want to
20 mention to the one Commissioner from Bottineau,
21 I've had three children go up to college there and
22 really have enjoyed their stay up there, and two of
23 them have come back to Minot State University to
24 finish their college.

25 I am currently the superintendent and

1 principal at a school ten miles south of Minot here
2 in the area of this proposed wind farm, South
3 Prairie Elementary School, right along Highway 83.

4 When we talk of something being half-full
5 and half-empty, we have the good fortune of being
6 on the half-full side in regards to this project --
7 proposed project.

8 Not all of the proposed towers are in our
9 school district, but there is a significant number
10 that are. Basin, as well as Verendrye, service us,
11 Capital -- or Central Power, excuse me, and they've
12 been good neighbors to us and we've tried to be
13 good neighbors to them.

14 I wanted to speak on behalf of saying that
15 this is a good project for our school district, our
16 rural community. We actually have undertaken a
17 school construction project of significance. Some
18 of that has been due to the fact that we have
19 gained some moneys already from wind -- wind power
20 with the two large turbines that border Highway 83
21 and our school district.

22 I really have nothing to say on the
23 negative about the proposed wind farm. I've had no
24 constituents, patrons, nobody in our school
25 community say anything that would be adverse to

1 having the towers placed where they're proposed,
2 and so I'm speaking before the Commission to say
3 that we are a benefactor of such a project and it
4 will help us.

5 Three years ago when I came to South
6 Prairie Elementary, we had a school enrollment of
7 117. Currently our enrollment is about 148. So at
8 that time when I came, we were using every nook and
9 cranny and closet space, and now we've been able to
10 through various resources expand and have a little
11 more efficient school system.

12 So that is my testimony, that I would like
13 to see this wind tower farm go on as scheduled.

14 JUDGE WAHL: Questions, Ms. Levchak?

15 MS. LEVCHAK: I have nothing. Thank you.

16 JUDGE WAHL: Questions, Ms. Bendish?

17 MS. BENDISH: I have none.

18 JUDGE WAHL: Questions from the
19 Commission?

20 COMMISSIONER CRAMER: Just thank you.

21 COMMISSIONER CLARK: Yes. Thank you. On
22 the way in, I was noticing some of that tax money
23 being put to good use, so congratulations on the
24 growth.

25 MR. GRONINGER: Yep. And I asked to speak

1 out of order simply because we've got a 1:30
2 kindergarten graduation today, so I've got to go
3 back, so thank you very much.

4 JUDGE WAHL: Just a minute. Commissioner
5 Kalk.

6 COMMISSIONER KALK: Just a question quick.

7 **EXAMINATION**

8 **BY COMMISSIONER KALK:**

9 Q. Will you be able to -- not PSC stuff --
10 but be able to add to your curriculum because this
11 stuff is here and field trips and that kind of
12 stuff and that you could share throughout the
13 state? Is that something maybe you talked about?

14 A. Well, I think the biggest benefactor in
15 that regard will probably be through the technology
16 end, adding the computer and possibly the Ivan-type
17 networks that would be available to us because the
18 moneys are there.

19 COMMISSIONER KALK: Okay. Thank you.

20 JUDGE WAHL: Thank you very much, Mr.
21 Groninger. Is there anybody else who wishes to
22 comment or testify to the Commission at this time?
23 Please state your name for the record.

24 MR. WIDDEL: Larry Widdel.

25 JUDGE WAHL: Mr. Widdel, will you spell

1 your last name, please?

2 MR. WIDDEL: W-i-d-d-e-l.

3 JUDGE WAHL: What is your residence
4 address, Mr. Widdel?

5 MR. WIDDEL: 1211 163rd Avenue Southeast,
6 Minot.

7 JUDGE WAHL: And your post office address.

8 MR. WIDDEL: 58701. That's our ZIP.

9 JUDGE WAHL: Mr. Widdel, as you have heard
10 me advise previous witnesses, your testimony is
11 required to be under oath and I'm required by law
12 to advise you regarding perjury before
13 administering the oath. Perjury is a false
14 statement of material fact which you do not believe
15 to be true, in other words, generally speaking, a
16 lie. In North Dakota perjury is a Class C felony
17 punishable by a fine up to \$5,000, imprisonment for
18 a period of up to 5 years, or both.

19 (Witness sworn.)

20 JUDGE HOBERG: You may proceed.

21 **LARRY WIDDEL,**

22 having been first duly sworn, was examined and
23 testified as follows:

24 MR. WIDDEL: Well, I'm really just here to
25 say that working with Basin Electric and the wind

1 tower -- the wind project that we have on our land,
2 the two that are out south of Minot on 83, has been
3 a very good experience. We -- people have asked me
4 how I felt about it, and I've always said it's a
5 win-win. We have absolutely no problem with the
6 wind chargers.

7 I consider myself a wildlife -- friendly
8 to the wildlife. I've always liked that, our
9 family has been. We've been out in this country
10 since 1902. My grandfather homesteaded where I
11 live. And my uncle used to move duck nests --
12 that's the kind of operation that we had -- so the
13 plow didn't wreck them.

14 But I have made an effort to maybe three,
15 four times a year look around underneath these wind
16 chargers for a dead duck or a dead goose or
17 anything that probably could have been affected in
18 wildlife, and we have not seen one time where
19 there's been anything that's been killed by those
20 wind chargers.

21 The -- as you drive by there on the way
22 back to Bismarck, you can look, we have -- an 80 of
23 that is in CRP, and it's a very nice wildlife area.
24 It's a big slough there and out behind kind of
25 rolling hills, and, you know, we've got deer that

1 sleep underneath those wind chargers, bed
2 underneath them. The geese are there building
3 nests right beside them, and I just can't see a
4 down side to them.

5 The only thing is where we live, it's
6 windy. It's been blowing ever since I was a kid.
7 I'm sure the Indians came out there and lived
8 because the wind blew and kept the mosquitos away
9 from them. That's what the neighbors told -- or my
10 one uncle told me, so that's how come we could find
11 Indian hammers out there.

12 And I cussed the wind a lot. Well, thank
13 the Lord the boys put a reason for me to brag it
14 up, but we have absolutely no -- no down side to
15 these wind chargers, and they've been there long
16 enough so I've got a good idea, and I think they're
17 a great -- be very good for my relatives and my
18 friends to the south of me to get some more. We
19 won't get any more, but I want to see them get
20 them.

21 And that's all I have.

22 JUDGE WAHL: Just a moment, Mr. Widdel.
23 Questions, Ms. Levchak?

24 MS. LEVCHAK: No. Thank you, Mr. Widdel.

25 JUDGE WAHL: Questions, Ms. Bendish?

1 MS. BENDISH: No questions.

2 JUDGE WAHL: Questions from the
3 Commissioners or comments?

4 COMMISSIONER CRAMER: Just thank you.

5 COMMISSIONER CLARK: Thank you.

6 MR. WIDDEL: Yep.

7 JUDGE WAHL: Thank you very much, Mr.
8 Widdel. Is there anyone else who wishes to comment
9 or testify to the Commission at this time? Please
10 state your name for the record.

11 MR. ELLSWORTH: Terry Ellsworth.

12 JUDGE WAHL: Spell your last name, please,
13 Mr. Ellsworth.

14 MR. ELLSWORTH: E-l-l-s-w-o-r-t-h.

15 JUDGE WAHL: What is your residence
16 address, Mr. Ellsworth?

17 MR. ELLSWORTH: 2592 Windsor Place North,
18 Mandan, North Dakota, 58554.

19 JUDGE WAHL: Is that also your post office
20 address?

21 MR. ELLSWORTH: Yes.

22 JUDGE WAHL: Mr. Ellsworth, as you have
23 heard me advise previous witnesses, your testimony
24 is required to be under oath and I'm required by
25 law to advise you regarding perjury before

1 administering the oath. Perjury is a false
2 statement of material fact that you do not believe
3 to be true, in other words, generally speaking, a
4 lie. In North Dakota perjury is a Class C felony
5 punishable by a fine up to \$5,000, imprisonment for
6 a period of up to 5 years, or both.

7 (Witness sworn.)

8 JUDGE WAHL: You may proceed.

9 **TERRY ELLSWORTH,**

10 having been first duly sworn, was examined and
11 testified as follows:

12 MR. ELLSWORTH: Thank you for the
13 opportunity to provide testimony on this project.
14 I'm a fish and wildlife biologist for the U.S. Fish
15 and Wildlife Service, the ecological services
16 division, in Bismarck, North Dakota.

17 The United States Congress has directed
18 the Fish and Wildlife Service to administer a
19 number of laws and regulations designed to protect
20 the nation's fish and wildlife resources for the
21 continuing enjoyment by the American people. These
22 laws include the Migratory Bird Treaty Act, the
23 Bald and Golden Eagle Protection Act, the
24 Endangered Species Act, and the National Wildlife
25 Refuge System Improvement Act.

1 The Fish and Wildlife Service supports the
2 responsible development of renewable, sustainable
3 energy resources like -- including wind energy.
4 Wind energy is non-polluting, uses little, if any,
5 water, contributes to our nation's energy
6 independence, and provides jobs and economic
7 benefits to local communities.

8 All forms of energy development, including
9 wind, have the potential to impact fish and
10 wildlife and their habitats. In general, the
11 wildlife resources and issues that warrant
12 consideration during project planning for wind
13 power include migratory birds and bats, potential
14 for habitat fragmentation, collisions and
15 electrocutions; federal land interests; wetland,
16 prairie and woodland habitats; threatened and
17 endangered species, as well as monitoring, research
18 and assessment.

19 The Fish and Wildlife Service has been
20 working cooperatively with Basin Electric, Rural
21 Utilities Service, and Western Area Power
22 Administration for over a year to provide technical
23 assistance to avoid, reduce and mitigate potential
24 impacts to fish and wildlife resources that may be
25 adversely affected by the proposed wind development

1 project.

2 Among other issues, the Fish and Wildlife
3 Service is concerned with wind power development in
4 North Dakota due to the potential impact to the
5 endangered whooping cranes as they migrate through
6 our state. There is a risk of direct mortality
7 from collision with turbines and transmission
8 lines, as well as indirect impact from the loss or
9 avoidance of suitable migration stopover habitat
10 due to the placement of wind energy facilities in
11 the whooping crane migration corridor.

12 Basin Electric, Rural Utilities Service
13 and Western Area Power Administration are currently
14 evaluating three potential wind energy development
15 sites as part of the U.S. Department of
16 Agriculture's environmental assessment process.
17 All three sites under consideration contain
18 suitable whooping crane migration stopover habitat.

19 The Fish and Wildlife Service has been in
20 consultation with Basin Electric and the USDA to
21 develop conservation measures that can be
22 incorporated into the project to reduce and offset
23 potential impacts to the whooping crane and other
24 threatened and endangered species from construction
25 and operation of the PrairieWinds project.

1 Although the USDA's review process is
2 still ongoing and final decisions have yet to be
3 made, we would like to take this opportunity to
4 commend Basin Electric for their cooperation with
5 our agency in seeking ways to proceed with their
6 project in an environmentally responsible way.

7 Thank you for the opportunity to provide
8 comments on the proposed Basin Electric
9 PrairieWinds project.

10 JUDGE WAHL: Questions, Ms. Levchak?

11 MS. LEVCHAK: None, but thank you, Mr.
12 Ellsworth.

13 JUDGE WAHL: Questions, Ms. Bendish?

14 MS. BENDISH: No questions.

15 JUDGE WAHL: Questions from the
16 Commission?

17 COMMISSIONER CLARK: None, but thank you
18 for being here.

19 COMMISSIONER CRAMER: Thank you.

20 COMMISSIONER KALK: I have one.

21 JUDGE WAHL: Commissioner Kalk.

22 COMMISSIONER KALK: I seem like the
23 one-question guy today.

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EXAMINATION

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BY COMMISSIONER KALK:

Q. Not so much for this hearing, but could you give me an update on what the Fish and Wildlife Service is doing holistically for North Dakota wind? Do you have an ongoing study about this at all throughout the state?

A. We're currently in the process of working with the wind energy industry to do a habitat conservation plan throughout the whooping crane migration corridor, including North Dakota. There's a number of companies that have no federal nexus so there's not a federal environmental process, and so they're working through the private process, which is Section 10 of the Endangered Species Act, to do a habitat conservation plan, and then they would follow that with an application for an incidental take permit so that their activities, if they were to take endangered species, they would not be liable under the law.

Q. So if we're able to get this done in some period of time, that'll make it -- I won't say easier, but it will be easier to make good decisions for developers throughout all areas of the state. That's the hope; right?

1 A. Yes. The purpose is to -- projects that
2 would be permitted under that habitat conservation
3 plan would have all those conservation measures
4 built into their project upfront when they come in
5 for that permit, and that would allow some
6 certainty on the part of the industry so that they
7 would know what is necessary for a project and not
8 have adverse impacts to species.

9 Q. And I guess the timeline on this at all --
10 do you have anything at all?

11 A. Right now we're looking at probably
12 another 12 to 16 months for the HCP process, and
13 then there's also a National Environmental Policy
14 Act -- or process that would have to follow with
15 that, so it may be a little longer than that.

16 COMMISSIONER KALK: Okay. Thank you.

17 JUDGE WAHL: Any further questions from
18 the Commission? Followup, Ms. Levchak?

19 MS. LEVCHAK: None. Thank you.

20 JUDGE WAHL: Any followup, Ms. Bendish?

21 MS. BENDISH: None.

22 JUDGE WAHL: Thank you very much, Mr.
23 Ellsworth. Is there anyone else who would testify
24 at this time? Mr. Carlson, please state your name
25 for the record.

1 MR. CARLSON: Bruce Carlson.

2 JUDGE WAHL: And your residence address?

3 MR. CARLSON: 513 West Prospect Avenue in
4 Velva, North Dakota.

5 JUDGE WAHL: Is that also your post office
6 address?

7 MR. CARLSON: 58790.

8 JUDGE WAHL: Mr. Carlson, as you have
9 heard me advise previous witnesses, your testimony
10 is required to be under oath and I'm required by
11 law to advise you regarding perjury before
12 administering the oath. Perjury is a false
13 statement of material fact which you do not believe
14 to be true. In North Dakota perjury is a Class C
15 felony punishable by a fine up to \$5,000,
16 imprisonment for a period of up to 5 years, or
17 both.

18 (Witness sworn.)

19 JUDGE WAHL: You may proceed.

20 **BRUCE CARLSON,**
21 having been first duly sworn, was examined and
22 testified as follows:

23 MR. CARLSON: Well, I want to thank the
24 Commission, also, for coming into Verendrye
25 Electric country. I happen to be the general

1 manager of Verendrye Electric. On behalf of the
2 member owners at 11,400 metering points in the six-
3 county area surrounding Minot, Verendrye wants to
4 testify in favor of the Basin Electric Minot wind
5 farm project for three reasons.

6 Number one, it's a dream come true. I
7 started work at Verendrye Electric in 1976, and in
8 the late Seventies and the early Eighties we
9 collected data off of the old radar base with the
10 mag tapes and you send it to the Department of
11 Energy and they translate the data. We knew we had
12 great wind resources there and also south of Velva
13 in what's called the Prophets Mountains along the
14 Missouri escarpment.

15 Number two, the member owners, the farmers
16 want the project and lots more of them. We have
17 landowners lined up waiting for more wind
18 development, and it seems like it's a good
19 direction, something the membership supports at the
20 grassroots level.

21 And, number three, we frankly need the
22 power. Verendrye Electric's demand this past
23 season was ten percent higher than last year. We
24 need new resources, and that's without coal --
25 without oil development in our service territory,

1 and as the Bakken keeps coming further and further
2 east and comes into Ward County, there's no
3 question we need new electrical generation.

4 We're having trouble doing that with coal
5 because of carbon dioxide concerns. We all know
6 about the nuclear waste concerns, so why not
7 capture the North Dakota wind and then firm that up
8 with natural gas-peaking plants, which is the
9 intent of the program, and we think it's a
10 win-win-win all the way around, and I appreciate
11 you being here and appreciate your support for the
12 project.

13 JUDGE WAHL: Questions, Ms. Levchak?

14 MS. LEVCHAK: I have no questions. Thank
15 you.

16 JUDGE WAHL: Questions, Ms. Bendish?

17 MS. BENDISH: No questions.

18 JUDGE WAHL: Any questions from the
19 Commission?

20 COMMISSIONER CLARK: None. But thanks
21 for --

22 JUDGE WAHL: Commissioner Cramer.

23 COMMISSIONER CRAMER: I have one.

24

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EXAMINATION

1

BY COMMISSIONER CRAMER:

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Q. Bruce, it was testified earlier that you were involved in some of the discussions with the Air Force base. Was that in your position as general manager or more with the Chamber of Commerce as the --

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8

A. No. General manager.

9

Q. Okay.

10

A. Minot Air Force Base is our number one key account. We work very, very closely with them, specifically with the 91st Missile Wing.

11

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Q. Would you be willing or care to elaborate on what your sense from the Base personnel is about the project and any concerns that they may have expressed that haven't been brought to the forefront of --

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A. Well, thank you, Commissioner. I can assure you that I's have been dotted and T's have been crossed, numerous meetings, taking it all the way to the concern about LED lights that would mark the wind machines in the vicinity of this single missile site south of town and making sure that the helicopter crews with their night vision are able to identify with these specific LED lights. So I

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1 think we've done a very good job. I apologize I
2 didn't get those e-mails, number one, from the Base
3 commander and, number two, from the 91st Missile
4 Wing commander as part of the testimony.

5 Q. If I might, Mr. Carlson, then one of the
6 things I just wanted to make sure that we have
7 clearly established, beyond receiving their
8 affirmation of the project, they have full
9 awareness of the project, and if they had concerns
10 or wanted to in any way testify or oppose,
11 certainly the opportunity was more than presented
12 to them?

13 A. Many, many times. And, again, Mr.
14 President, the Public Service Commission needs to
15 know for the U.S. Air Force to buy 26 percent of
16 our power, we're not going to snub them, and that
17 certainly has not been the intent. Many, many
18 meetings. The most recent one that I was at with
19 Ron Rebenitsch, room full of people, went through
20 all the clearances and the emergency approaches,
21 and Basin agreed to put the LED lights, and I know
22 Amanda has just done a ton of other work answering
23 their questions and their concerns, and I'm under
24 the impression everything is taken care of.

25 Q. But then what I want to get to next, if

1 you're comfortable testifying to it, is
2 Commissioner Kalk -- and he may have some questions
3 as well -- referenced future growth opportunities
4 or potential development opportunities with the
5 base. Was there ever a discussion about how this
6 might impact the base's potential for expansion and
7 how likely that may even be?

8 A. Well, the base expansion we're talking
9 about is 12 miles north of town and we're talking
10 about a wind farm that's 15 miles south of town.
11 We did talk about the wind machines and worrying
12 about radar and worrying about harmonics, and
13 they're far enough away that has not been an issue
14 at all for the base. So the base can expand and do
15 whatever they want. I don't think the missile
16 field is going to expand. The worry was the one
17 specific missile facility, which is underground and
18 approximately a quarter of a mile -- half a mile --
19 I don't know my distance exactly -- and that's been
20 cleared with lights.

21 Q. All right. Then just one more thing --
22 and this has been helpful to me. Are you still the
23 chairman of the Military Affairs Committee of
24 the --

25 A. Yes. I'm chairman of the Minot Military

1 Affairs Committee. That's correct.

2 COMMISSIONER CRAMER: All right. That's
3 all I have. Thank you.

4 JUDGE WAHL: Any further questions from
5 the Commission?

6 COMMISSIONER KALK: Just to clarify a
7 little bit.

8 **EXAMINATION**

9 **BY COMMISSIONER KALK:**

10 Q. That's great. I think, as we talked
11 before, all I'm looking for is just something in
12 the record that says from the Air Force's people --
13 and we've talked about it because I want this to
14 continue as well -- just so at some future date
15 that we can go back to the Air Force and said John
16 So-and-so from the Air Force said this would not
17 limit future growth so we can keep the Air Force
18 viable. If we could put that in there, I think
19 we've answered all the questions.

20 A. I think we can do that e-mail and we'll
21 see -- we'll see what else you need.

22 Q. And just one last question. Did you truly
23 take the brownies from the kitchen upstairs?

24 A. Yes, I brought the brownies downstairs.
25 They're in the back of the room. We're not sending

1 those extra brownies back to the Homesteaders.

2 Thank you.

3 JUDGE WAHL: Just a moment. Any further
4 questions from the Commission? Followup, Ms.
5 Levchak?

6 MS. LEVCHAK: No, Your Honor.

7 JUDGE WAHL: Any followup, Ms. Bendish?

8 MS. BENDISH: No.

9 JUDGE WAHL: Thank you very much, Mr.
10 Carlson.

11 MR. CARLSON: Thank you, Your Honor.

12 JUDGE WAHL: Anyone else who wishes to
13 testify or comment on this matter? Please state
14 your name for the record.

15 MR. MELAND: Tom Meland.

16 JUDGE WAHL: Spell your last name, Mr.
17 Meland.

18 MR. MELAND: M-e-l-a-n-d.

19 JUDGE WAHL: What is your residence
20 address, Mr. Meland?

21 MR. MELAND: 5608 Sixth Street Southeast,
22 Minot, North Dakota.

23 JUDGE WAHL: Is that also your post office
24 address?

25 MR. MELAND: It is.

1 JUDGE WAHL: You may proceed.

2 MR. MELAND: Good afternoon, President
3 Cramer and Commissioners Clark and Kalk. My name
4 is Tom Meland, as I mentioned earlier, and I'm the
5 general manager of Central Power Electric
6 Cooperative headquartered here in Minot.

7 Central Power is a class A member of Basin
8 Electric and is the wholesale power supplier and
9 transmission cooperative for six distribution
10 cooperatives who cover the central and southeastern
11 third of North Dakota.

12 One of the Central Power's members is
13 Verendrye Electric, whose service territory this
14 Basin Electric wind farm will be located in.
15 Central Power has been intimately involved with all
16 of Basin's previous wind farm projects in North
17 Dakota. We constructed and provided the
18 interconnection for Basin's two coop-owned wind
19 turbines south of Minot. We were also responsible
20 for construction and continued operation of the
21 ten-mile 115 kV transmission line extension to the
22 40 megawatt Basin FPL Edgeley wind farm, and the
23 four-and-a-half-mile 230 kV transmission line
24 extension to the 50 megawatt Basin FPL Wilton wind
25 farm.

1 We are not directly involved in this
2 project as the wind farm collector substation has
3 been strategically located to place the
4 interconnection facility directly under the Western
5 Area Power Administration Garrison-Minot 115 kV
6 line, thus eliminating the need for any
7 transmission line construction.

8 While I personally like transmission
9 lines, this is, in fact, a positive aspect of this
10 proposed wind farm project as it minimizes the
11 project impact and footprint.

12 From my experience gained from working
13 with Basin on wind farm development starting with
14 the Minot project in 2002, Edgeley in 2003 and
15 Wilton in 2005, I can attest to Basin Electric's
16 concern for landowners, the environment and the
17 electric transmission system, and I know that they
18 will construct and operate this project as well or
19 better than any other entity could. Central Power
20 is in full support of this project.

21 And I might add I wish I had a copy of our
22 2002 annual report in which we had a photograph of
23 a United States Air Force B52 bomber flying over
24 the two wind turbines south of town during a
25 dedication ceremony. Perhaps I could provide that

1 later. Thank you.

2 JUDGE WAHL: Is that a request, Mr.
3 Meland, to file a late-filed exhibit?

4 MR. MELAND: Only if asked.

5 JUDGE WAHL: What are the wishes of the
6 Commission?

7 COMMISSIONER CRAMER: Well, as much fun as
8 it would be to see it, I don't think it needs to be
9 evidence, but I would love to see it.

10 JUDGE WAHL: Questions, Ms. Levchak?

11 MS. LEVCHAK: No. Thank you, Tom.

12 JUDGE WAHL: Any questions, Ms. Bendish?

13 MS. BENDISH: No questions.

14 JUDGE WAHL: Any questions from the
15 Commission?

16 COMMISSIONER CLARK: Just like to thank
17 you. In eight and a half years on the Commission,
18 I've never had someone testify that they like
19 transmission lines. That's a first at one of our
20 siting hearings. I appreciated that.

21 JUDGE WAHL: Any further questions from
22 the Commission? Thank you very much, Mr. Meland.

23 MR. MELAND: Thank you.

24 JUDGE WAHL: Is there anyone else who
25 wishes to comment or testify on this matter at this

1 time? Anyone else? Ms. Levchak.

2 MS. LEVCHAK: Thank you, Your Honor. I'd
3 like to call our next witness, Kevin Solie.

4 JUDGE WAHL: Mr. Solie, as you're well
5 aware, your testimony is required to be under oath
6 and I'm required by law to advise you regarding
7 perjury before administering the oath. Perjury is
8 a false statement of material fact which you do not
9 believe to be true, in other words, generally
10 speaking, a lie. In North Dakota perjury is a
11 Class C felony punishable by a fine up to \$5,000,
12 imprisonment for a period of up to 1 year, or both.

13 (Witness sworn.)

14 JUDGE WAHL: Ms. Levchak.

15 MS. LEVCHAK: Thank you, Your Honor.

16 **KEVIN SOLIE,**

17 having been first duly sworn, was examined and
18 testified as follows:

19 **DIRECT EXAMINATION**

20 **BY MS. LEVCHAK:**

21 Q. Please state your name, address, and
22 occupation.

23 A. My name is Kevin L. Solie. My business
24 address is 1717 East Interstate -- is this mike --
25 there we go. I'm employed by Basin Electric Power

1 Cooperative as a senior environmental analyst. I'm
2 responsible for the preparation of environmental
3 studies and permit applications for various
4 transmission and generation projects Basin Electric
5 is currently planning.

6 Q. Would you please state your educational
7 background?

8 A. I earned a Bachelor of Science degree from
9 the University of North Dakota, Grand Forks, in
10 1987 with a major in geology. In 1995 I received a
11 Master of Science degree from the University of
12 North Dakota with a major in geology with special
13 emphasis on hydrogeology. In 2008 I earned a
14 degree in geological engineering again from the
15 University of North Dakota.

16 Q. And what is your professional experience?

17 A. I worked as an environmental scientist for
18 the North Dakota State Department of Health,
19 Division of Waste Management, from 1991 to 2007. I
20 am a recently retired commissioned officer of the
21 North Dakota Army National Guard, having served a
22 one-year tour of duty in Iraq. I was hired by
23 Basin Electric in May of 2007 as an environmental
24 analyst.

25 Q. Mr. Solie, what have been your

1 responsibilities in connection with the
2 PrairieWinds project?

3 A. I am responsible for the overall
4 coordination of the environmental analysis for this
5 project. This involved working with an
6 interdisciplinary consultant team, contacting and
7 meeting with public officials, coordinating
8 activities with other Basin Electric departments
9 and reviewing and coordinating the various reports
10 that have been submitted to the Rural Utilities
11 Service, or RUS, Western Area Power Administration,
12 or Western, the U.S. Fish and Wildlife Service, or
13 the Service, and the North Dakota Public Service
14 Commission, as well as other interested agencies.

15 Q. And, Mr. Solie, what is the involvement of
16 the RUS with the PrairieWinds project, and are
17 other federal agencies also involved?

18 A. The proposed project would be built with
19 financial assistance from RUS. The project would
20 also interconnect with Western's Garrison to
21 Mallard 115 kV transmission line. These actions by
22 RUS and Western are both considered major federal
23 actions subject to the National Environmental
24 Policy Act, or NEPA. RUS is the lead federal
25 agency for the NEPA process. Western and the

1 Service are cooperating agencies. The Service is
2 involved because of their special interest and
3 expertise related to the endangered whooping crane
4 and other wildlife issues.

5 RUS rules implementing NEPA require an
6 environmental assessment, or EA, to be completed
7 for the project. RUS will publish the EA for
8 public comment following its review. After the
9 comment period and considering the comments
10 received, RUS will issue its decision.

11 Q. Mr. Solie, does the Endangered Species Act
12 have any role in this NEPA process?

13 A. Yes. If a federal agency is considering
14 an action that may affect a listed species under
15 the ESA, that federal agency must consult with the
16 Service. RUS is engaged in a Section 7
17 consultation with the Service for this project.

18 Q. Mr. Solie, have there been any issues or
19 concerns regarding threatened or endangered species
20 per the federal Endangered Species Act?

21 A. Yes. There has been close coordination
22 with Basin Electric, RUS and the U.S. Fish and
23 Wildlife Service regarding threatened and
24 endangered species. There are four species of
25 concern: The endangered whooping crane and the

1 gray wolf; the threatened piping plover; and a
2 candidate species, the Dakota skipper, which is a
3 butterfly.

4 The whooping crane is a federally
5 endangered species that may use the project area
6 during their spring and fall migration. Impacts
7 are thought to occur primarily from the loss of
8 stopover habitat as the project occurs within the
9 migration corridor.

10 Gray wolves are not known to occur in the
11 project area but may be found throughout North
12 Dakota in extremely low numbers.

13 Piping plover nesting and foraging habit
14 is not known to occur within the project area.
15 However, the species may transit the project area
16 during migration. Designated critical habitat for
17 the piping plover is found near the project area.

18 The candidate species, Dakota skipper, has
19 the potential to be found in the project area.

20 Q. Could you please describe what measures
21 Basin Electric will take to avoid or minimize
22 impact to these species during construction?

23 A. Basin Electric has committed to the
24 following avoidance, minimization and monitoring
25 measures during construction:

1 Monitoring and training procedures will be
2 developed in coordination with the U.S. Fish and
3 Wildlife Service so that project personnel would be
4 able to identify whooping cranes in the field. Any
5 observations would be immediately reported to the
6 Service.

7 Construction activities would be suspended
8 within one mile of the observation of a whooping
9 crane, leaving birds undisturbed until they move
10 out of the area.

11 Potential Dakota skipper habitat would be
12 avoided to the extent possible.

13 Q. Please describe what measures Basin
14 Electric will take to avoid or minimize impact to
15 the endangered species during operation of the
16 project?

17 A. Basin Electric has committed the following
18 avoidance, minimization and monitoring measures
19 during operations:

20 For three years post-construction trained
21 personnel would be on site during spring and fall
22 migration seasons to observe whooping cranes. If
23 whooping cranes are observed, turbines located
24 within one mile of the observation would be shut
25 down until such time as the cranes are no longer

1 observed in the area.

2 Monitoring procedures for whooping crane
3 and sandhill crane mortality would be developed,
4 and any crane mortality would be reported
5 immediately to the Service. Sandhill cranes are
6 not endangered or threatened but are used by avian
7 biologists as a surrogate for the whooping cranes
8 because of similar behavioral characteristics. In
9 the event of a whooping crane mortality, temporary
10 shutdown of all turbines would occur until it has
11 been determined with input from the Service that
12 there are no additional whooping cranes in the
13 project area.

14 For three years post-construction Basin
15 Electric would provide annual reports to RUS, the
16 U.S. Fish and Wildlife Service and the North Dakota
17 Game & Fish Department. Reports would address
18 compliance with the whooping crane monitoring and
19 any other avian studies.

20 Based on monitoring data collected, Basin
21 Electric would incorporate adaptive management
22 principles to help guide any future modifications
23 to operation.

24 At the end of the three-year post-
25 construction whooping crane monitoring period, if

1 whooping cranes or sandhill cranes have been
2 observed utilizing habitat in the project area, the
3 U.S. Fish and Wildlife Service and RUS would
4 determine whether additional monitoring is needed
5 or any modifications are deemed necessary in the
6 monitoring or operational protocols.

7 Q. Mr. Solie, has Basin Electric proposed any
8 additional efforts as part of its overall project
9 to minimize potential effects on the avian species
10 using the migratory flyway corridor?

11 A. Yes. In addition to the avoidance,
12 minimization and monitoring measures I have
13 discussed, Basin Electric has proposed, as a
14 voluntary conservation measure, to fund the
15 acquisition of suitable stopover habitat.

16 Basin Electric has proposed to the U.S.
17 Fish and Wildlife Service and RUS that the North
18 Dakota Natural Resources Trust of Bismarck, North
19 Dakota, be designated for the purposes of
20 facilitating habitat acquisition. Final details of
21 the administration, acquisition and management of
22 these habitats are under discussion.

23 Q. Mr. Solie, is the NEPA process a separate
24 process from the PSC siting process we are involved
25 in today?

1 A. Yes. It is an independent and separate
2 process by a federal agency.

3 Q. All right. What is the purpose of your
4 testimony in this hearing?

5 A. I will describe with respect to the
6 environmental considerations how the siting of the
7 proposed PrairieWinds project is in accordance with
8 the North Dakota Energy Conversion and Transmission
9 Facility Siting Act and the PSC rules.

10 (Exhibit 6 was marked for identification.)

11 Q. (MS. LEVCHAK CONTINUING) Mr. Solie, I
12 want to show you what the court reporter has marked
13 as Exhibit No. 6 and ask you to please identify it.

14 A. This is a map of the project area that
15 depicts PSC energy conversion facility exclusion
16 and avoidance areas.

17 MS. LEVCHAK: Your Honor, I'd move for
18 admission of Exhibit No. 6.

19 JUDGE WAHL: Ms. Bendish?

20 MS. BENDISH: No objection.

21 JUDGE WAHL: Exhibit 6 is received.

22 Q. (MS. LEVCHAK CONTINUING) Mr. Solie, could
23 you please describe what an exclusion criteria
24 means?

25 A. The North Dakota PSC rules at North Dakota

1 Administrative Code, Chapter 69-06-01 states:
2 "Exclusion criteria means criteria that remove
3 areas from consideration for energy conversion
4 facility sites and transmission facility routes."

5 Q. Could you please describe what an
6 avoidance criteria means?

7 A. The North Dakota Public Service Commission
8 rules at North Dakota Administrative Code, Chapter
9 69-06-01 states: "Avoidance criteria means
10 criteria that remove areas from consideration for
11 energy conversion facility sites and transmission
12 facility routes unless it can be shown that under
13 the circumstances there are no reasonable
14 alternatives."

15 Q. Mr. Solie, do the PSC rules provide any
16 further direction regarding exclusion and avoidance
17 areas?

18 A. Yes. The North Dakota Administrative
19 Code, Chapter 69-06-08 also provides that prime and
20 unique farmland are listed as exclusion areas.
21 However, the PSC may find that if the prime
22 farmland and unique farmland that will be removed
23 from use for the life of the facility is of such
24 small acreage as to be of negligible impact on
25 agricultural productions, such exclusions shall not

1 apply.

2 Q. Mr. Solie, would you please give the
3 Commission a general description of the project
4 area?

5 A. The proposed facility is located in Ward
6 County, about 15 miles south of Minot on the
7 Missouri Coteau. The project area is a primarily
8 rural agricultural area located east and west of
9 U.S. Highway 83 and north and south of North Dakota
10 Highway 23. The Missouri Coteau is characterized
11 by a hummocky, glaciated landscape with poorly
12 integrated stream drainage and numerous prairie
13 pothole wetlands between mounds of glacial till.

14 The project area is comprised of
15 approximately 53 percent cropland, 15 percent tame
16 grassland, and about 30 percent native cover types,
17 including wetland areas. This area also happens to
18 be an area of good to excellent wind resource.

19 Q. Would you please describe the general
20 philosophy and objectives used by Basin Electric in
21 selecting the project area?

22 A. The ultimate goal is to site a wind
23 facility that maximizes the wind resource,
24 minimizes the length of new transmission lines, and
25 produces minimal adverse effects on the

1 environment.

2 MS. LEVCHAK: Your Honor, excuse me for
3 just about 15 seconds.

4 (Off the record.)

5 MS. LEVCHAK: Thank you.

6 Q. (MS. LEVCHAK CONTINUING) Who participated
7 in the environmental analysis process?

8 A. A multi-disciplinary team at Basin
9 Electric, including environmental, engineering, and
10 lands and right-of-way personnel worked together in
11 the environmental analysis process. In addition,
12 consultants to Basin Electric, including staff from
13 TetraTech of Boulder, Colorado, played a major role
14 in the preparation of the application.

15 Q. Mr. Solie, did Basin Electric incorporate
16 public input in the environmental review process?

17 A. Yes. Basin Electric incorporated various
18 data and input from public agencies, representative
19 officials, private industry, and the general
20 public. The list of officials and agencies
21 contacted are presented in Appendix D of the
22 application. In total, 35 agencies, organizations
23 or officials were contacted for early input on this
24 project. Ten Native American tribes were also
25 contacted to solicit their input on the project.

1 RUS also conducted a public scoping
2 meeting in Minot in early April 2008 in compliance
3 with the scoping provisions of the United States
4 Department of Agriculture NEPA implementing
5 regulations. The purpose of the meeting was to aid
6 in the federal decisionmaking process and to assist
7 in the formulation of issues to be addressed by the
8 RUS environmental assessment for the proposed
9 project. The comments received during the meeting
10 were also considered in the siting and design of
11 the facilities.

12 Q. Mr. Solie, I'm now going to ask you a
13 series of questions related to the PSC energy
14 conversion facility siting criteria, exclusion
15 areas. Does the project area include any
16 designated or registered national: Parks; memorial
17 parks; historic sites and landmarks; national
18 landmarks; historic districts; monuments; or
19 wilderness areas; wildlife areas, wild, scenic, or
20 recreational rivers; wildlife refuges; and
21 grasslands?

22 A. The project area includes a U.S. Fish and
23 Wildlife Service waterfowl production area located
24 in the northwest corner of the project boundary.
25 Basin Electric has used a quarter-mile setback from

1 any turbine to the WPA boundary.

2 Q. Does the proposed project area include any
3 designated or registered state: Parks; forests;
4 forest management lands; historic sites; monuments;
5 historical markers; archeological sites;
6 grasslands; wild, scenic, or recreational rivers;
7 game refuges; game management areas; management
8 areas; or nature preserves?

9 A. No.

10 Q. Does the project area include any county
11 parks and recreational areas; municipal parks; and
12 parks owned or administered by other governmental
13 subdivisions; hardwood draws; and enrolled
14 woodlands?

15 A. No.

16 (Exhibit 7 was marked for identification.)

17 Q. (MS. LEVCHAK CONTINUING) Mr. Solie, I'm
18 going to show you what the court reporter has
19 marked as Exhibit No. 7 and ask you to please
20 identify it.

21 A. It is a map of the project area that
22 depicts prime farmland.

23 MS. LEVCHAK: Your Honor, I'd move
24 admission of Exhibit No. 7.

25 JUDGE WAHL: Ms. Bendish?

1 MS. BENDISH: No objection.

2 JUDGE WAHL: Exhibit 7 is received.

3 Q. (MS. LEVCHAK CONTINUING) Mr. Solie, does
4 the project area include any prime or unique
5 farmland?

6 A. Yes. The project area includes
7 approximately 1986 acres, which is less than 7
8 percent of the area, of prime farmland, and
9 541 acres, which is less than 2 percent of prime
10 farmland if drained. No unique farmland was
11 identified. No turbines would be located in prime
12 farmland.

13 Q. Does the project area contain any
14 irrigated land?

15 A. No.

16 Q. Does the project area contain areas which
17 are critical to the life stages of a threatened or
18 endangered animal or plant species?

19 A. No.

20 Q. Does the project area include any areas
21 where animal or plant species that are unique or
22 rare to the state would be irreversibly damaged?

23 A. No. However, an area containing North
24 Dakota natural heritage inventory species/
25 communities is present. The observations are

1 located in the Northwest Quarter, Northwest Quarter
2 of Section 21, Township 152 North, Range 83 West.
3 The inventory indicates bulrush freshwater marsh
4 and western porcupine grass hillside are present.
5 The buried collector line system clips the extreme
6 southeastern portion of the parcel. However,
7 impacts to vegetation would be minimal and would
8 occur only in one growing season.

9 Q. Mr. Solie, I'm now going to ask you a
10 series of questions related to the PSC energy
11 conversion facility siting criteria, avoidance
12 areas. Does the project area include historical
13 resources that are not designated as exclusion
14 areas?

15 A. Yes. A Class III cultural resource
16 survey, or pedestrian survey, was conducted in the
17 areas subject to ground disturbing activities. The
18 survey area consisted of a 100-foot-wide corridor
19 centered on the proposed access road and collector
20 system centerlines, a 600-foot-diameter area
21 centered at each tower location, and at the
22 proposed collector substation and O&M building
23 site. Any areas containing cultural resources will
24 not be disturbed by project activities.

25 No paleontological resources have been

1 identified in the project area.

2 Q. Is the project area within the limits of a
3 city or the boundaries of a military installation?

4 A. The project area does not include any
5 cities. There is a United States Air Force missile
6 site located within the project area. Of course,
7 no project facilities will be located within that
8 site.

9 Q. Does the project area include any areas
10 within known floodplains as defined by the
11 geographical boundaries of the 100-year flood?

12 A. No.

13 Q. Are there any geologically unstable areas
14 included in the project area?

15 A. No.

16 Q. Are there any woodlands and wetlands
17 within the project area?

18 A. Some small areas of shrubs and occasional
19 small trees occur in the project area. A small
20 number of trees and shrubs will need to be removed
21 to allow for the construction and operation of the
22 project. As a mitigation measure, Basin Electric
23 will replant two trees or shrubs for every tree or
24 shrub removed during the construction of the
25 project.

1 There are numerous wetlands within the
2 project area. However, because project facilities
3 would not be placed in wetland areas, no permanent
4 impacts to wetlands are anticipated as a result of
5 project construction. Wetlands greater than
6 50 acres will have a 500-foot buffer.

7 Basin Electric will also implement
8 mitigation measures to minimize indirect impacts to
9 surface water and wetland resources, such as
10 erosion and sedimentation control best management
11 practices. Basin Electric will require its
12 contractor to secure required storm water permits
13 for the project from the North Dakota Department of
14 Health.

15 Q. Does the project contain areas of
16 recreational significance that are not designated
17 as exclusion areas?

18 A. No.

19 Q. Mr. Solie, I will now ask you a series of
20 questions related to the PSC energy conversion
21 facility siting selection criteria. What impact
22 will the construction and operation of the project
23 facilities have on agricultural production and
24 family farms and ranches?

25 A. Basin Electric closely coordinated with

1 landowners during turbine micrositing in order to
2 minimize impact to agricultural production. The
3 per-turbine annual payments provide additional
4 income to farmers and ranchers.

5 The construction and operation of this
6 project will have a minimal effect upon
7 agricultural production. Temporary construction
8 disturbances will be confined to access road and
9 collector line right-of-way trails and tower
10 assembly locations around the base of the turbines.

11 Construction activities will likely result
12 in short-term effects on land and crops, depending
13 on the season or seasons construction occurs. Some
14 crops may be damaged and soil compaction may occur.
15 These effects, however, are usually short-term and
16 the land returns to its former use after the next
17 season's plowing and seeding. Landowners will be
18 compensated for crop losses and for field damage
19 resulting from construction.

20 Similarly, construction of the project
21 will also have some effect on rangeland and
22 grassland. However, existing vegetation within the
23 construction area would be preserved whenever
24 feasible.

25 In addition, surface disturbance areas

1 would be reclaimed using native species to
2 reestablish vegetation, reduce erosion, and
3 minimize the potential of invasion by noxious
4 weeds.

5 Since land immediately adjacent to the
6 turbines and access roads can be used for pasture
7 or row crops, the project will permanently impact
8 only those lands used for turbine foundations or
9 access roads, which is less than 100 acres.

10 Q. What impact will construction and
11 operation of the project have on land which an
12 owner can demonstrate has the soil, topography,
13 drainage and an available water supply that makes
14 the land economically suitable for irrigation?

15 A. There are no lands currently being
16 irrigated within the project area. Due to the
17 limited availability of water supplies in the area
18 and the relatively steep hummocky topography in the
19 project area, it is unlikely that lands in this
20 area would be irrigated.

21 Q. What impact will construction and
22 operation of the project have on surface drainage
23 and groundwater flow patterns?

24 A. Drainages within the project area are
25 largely intermittent or ephemeral and, to the

1 extent practicable, were avoided during siting.
2 The turbine foundations are generally not deep
3 enough to reach the water table. No impacts are
4 anticipated to occur to either surface or
5 groundwater flow patterns.

6 Q. What impacts may occur to the agricultural
7 quality of cropland?

8 A. Impacts on soil resources would occur in
9 two separate stages, during and after turbine and
10 ancillary equipment construction. Short-term
11 impacts resulting from the initial construction
12 activities include increased soil compaction and
13 soil structure destruction. Chemical changes could
14 also result from mixing surface soil with subsoil
15 during salvage activities.

16 Due to the relatively short construction
17 period and prompt replacement of salvaged soils,
18 reduction in soil biological activities is expected
19 to be short-term. After soil redistribution,
20 biological activity would increase and eventually
21 reach pre-salvage levels.

22 Construction practices will minimize soil
23 erosion during and after turbine construction, and
24 impacts are not expected to be measurable.

25 Q. Can you please describe the impacts of the

1 project on the availability and adequacy of local
2 services such as: Law enforcement, school systems
3 and educational programs, governmental services and
4 facilities, general and mental healthcare
5 facilities, recreational programs and facilities
6 and retail service facilities?

7 A. The project is located in a lightly
8 populated rural area. The closest major city to
9 the project area is the City of Minot. The
10 populations of Minot and of Ward County are
11 approximately 35,000 and 56,000 respectively.

12 During the five-to-seven-month
13 construction phase, we expect approximately 230
14 temporary workers would need fuel, meals and
15 lodging. There would be minimal impacts on local
16 services during construction.

17 Once the facility is operational,
18 approximately eight to ten full-time employees
19 would be required to perform the routine operation
20 and maintenance of the facility. Long-term impacts
21 to local services would be negligible.

22 Q. Please describe the impact upon the
23 availability and adequacy of transportation
24 facilities and networks.

25 A. The maximum construction workforce is

1 expected to generate approximately 50 additional
2 vehicle trips per day. Using any combination of
3 state or county highways and township roads
4 throughout the project area, the traffic impacts
5 are considered negligible.

6 Since many of the area roadways currently
7 have minimal average daily traffic counts, the
8 additional vehicle trips may represent a large
9 percentage increase and will likely be perceptible
10 but will still be less than the seasonal variations
11 such as autumn harvest. The capacity of any route
12 and level of service to the traveling public will
13 not be impacted.

14 Q. Please describe the impact on the
15 availability and adequacy of utility services.

16 A. Existing 115 kV transmission lines and
17 lower voltage transmission lines are presented in
18 the project area. The project will require service
19 from the local electric provider, Verendrye
20 Electric Cooperative. The 6500-square-foot O&M
21 building would have power requirements consistent
22 with a similarly-sized rural shop.

23 Q. Please describe impacts on local
24 institutions.

25 A. Given the short duration of construction

1 and the modest influx of temporary construction
2 workers, the project would have negligible effects
3 on local institutions.

4 Q. What impact will construction and
5 operation of the proposed project have on noise-
6 sensitive land uses?

7 A. Sensitive noise receptors within the area
8 include rural residents living in scattered
9 locations on farmsteads. Temporary noise impacts
10 would result from construction activities, most
11 likely consisting of sounds of equipment backup
12 warning devices and diesel engine operation.
13 Temporary construction noise would be limited to no
14 more than a few days at any particular location in
15 the project area.

16 Turbine noise can also be an issue. Basin
17 Electric has located project wind turbines a
18 minimum of 1,000 feet from an occupied residence.
19 In all but one case, turbines are proposed to be
20 located more than 1400 feet from occupied
21 residences. It has been generally accepted that
22 noise levels at occupied residences should not
23 exceed a 50 dBA standard. Basin Electric's
24 modeling indicates that the 50 dBA standard is
25 reached at 660 feet from a turbine. Since turbine

1 noise decreases with the square of the distance, it
2 is anticipated that turbine noise levels at
3 1,000 feet will be well within acceptable limits.

4 Q. Any impact upon rural residences and
5 businesses?

6 A. The turbines will be visible to certain
7 rural residences and businesses.

8 Q. Any impact upon aquifers?

9 A. Construction and operation of the project
10 will not impact aquifers.

11 Q. Any impact upon human health and safety?

12 A. All utility protection and metering
13 equipment will meet Basin Electric and National
14 Electric Safety Code standards. The collector
15 substation would be secured with fencing and access
16 would be limited to trained personnel.

17 The wind turbines will be visible from a
18 distance and will have lighting and markings that
19 comply with the Federal Aviation Administration
20 requirements.

21 Q. What impact will construction of the
22 proposed project have on animal health and safety?

23 A. Any effects to wildlife will generally be
24 minor and short-term. In most instances suitable
25 habitat adjacent to the disturbed areas would be

1 available for wildlife species until grasses and
2 woody vegetation would be reestablished in the
3 construction area. Basin Electric would replant
4 disturbed areas with native species as recommended
5 by the county Natural Resources Conservation
6 Service or NRCS.

7 Prior to surface disturbance activities
8 during the breeding season for migratory birds,
9 approximately April 15 through July 31, a qualified
10 biologist will survey potentially-suitable habitat,
11 that is land that is not cultivated, for nesting
12 activity and other evidence of nesting. If active
13 nests are located or other evidence of nesting is
14 observed, appropriate protection measures,
15 including the establishment of buffer areas, would
16 be implemented until the young have fledged and
17 dispersed from the nest area. These measures will
18 be implemented on a site-specific and species-
19 specific basis in coordination with RUS.

20 Construction activities may cause some
21 temporary inconvenience to livestock grazing
22 practices. However, these impacts would be minor
23 and short-term.

24 Q. What impact will the construction of the
25 project have on plant life?

1 A. Impacts to plant life would be limited to
2 the footprint of the project. Rangeland or
3 grassland disturbed during construction activities
4 would be reclaimed with NRCS recommended seed
5 mixes. Reclamation of these areas would restore
6 vegetation and native habitat.

7 Q. What impacts will the project have on
8 temporary and permanent housing and temporary and
9 permanent skilled and unskilled labor?

10 A. During the five-to-seven-month
11 construction phase, we expect approximately 230
12 temporary workers would need lodging. There would
13 be minimal impacts to permanent housing during
14 construction with most workers utilizing regional
15 motels and hotels. In fact, there are expected to
16 be positive economic benefits.

17 Once the facility is operational,
18 approximately eight to ten full-time employees
19 would require housing. Long-term impacts to local
20 housing would be insignificant.

21 It is anticipated that the prime
22 construction contractor will bring its own crew and
23 may hire some local workers. Local contractors
24 would provide concrete, aggregate and other
25 products and services. Once the construction is

1 complete, the project would employ eight to ten
2 individuals.

3 Q. Mr. Solie, please describe the cumulative
4 effect of the location of the project in relation
5 to existing and planned facilities and other
6 industrial development.

7 A. North Dakota is the top-ranked state for
8 potential wind development in the United States.
9 The increase in wind turbines on the landscape is
10 difficult to accurately predict, but the number of
11 turbines and associated infrastructure is growing
12 and will likely continue to grow into the future.
13 A 12 megawatt project has been constructed north of
14 Velva in neighboring McHenry County. Basin
15 Electric has two existing wind turbines about two
16 miles north of the project area and has plans to
17 add three more turbines at that location.

18 While many winds projects have been
19 proposed for North Dakota, it is difficult to
20 project which of the proposed projects will
21 actually be constructed. Although North Dakota has
22 the highest potential wind resource, it has not
23 been fully developed because of the limited amount
24 of installed transmission in the state.

25 Q. Mr. Solie, are any approvals required for

1 this project at the county or township levels?

2 A. Yes. On April 7, 2009, we received a
3 building permit from Ward County for a total of up
4 to 77 wind turbines and associated facilities.

5 On May 8, 2009, we received a conditional
6 use requirements approval from Newman Township.

7 On September 5, 2008, the Gasman Township
8 board approved Basin Electric's wind energy project
9 zoning in Gasman Township, which was up to 50 wind
10 turbines and associated facilities.

11 On May 21, 2009, Basin Electric received a
12 conditional use permit from Gasman Township.

13 Q. Mr. Solie, does this conclude your direct
14 testimony?

15 A. Yes, it does.

16 MS. LEVCHAK: Thank you. Your Honor, this
17 witness is available for cross-examination.

18 JUDGE WAHL: Questions, Ms. Bendish?

19 MS. BENDISH: Mr. Lein has a question.

20 JUDGE WAHL: Mr. Lein.

21 **CROSS-EXAMINATION**

22 **BY MR. LEIN:**

23 Q. I would ask, Kevin, do -- did you have a
24 determination from SHPO of known historic
25 properties affected?

1 basically with the towers themselves, I think you
2 had heard me ask Amanda earlier some questions
3 about that and she had deferred. Were you at that
4 those zoning hearings and were there -- what was
5 the tone of those? Were there questions raised
6 about having towers that close to roads?

7 A. There was one, I guess, meeting with the
8 Ward County planning and zoning board, and they --
9 well, we provided, I guess, kind of high resolution
10 air photos showing the locations of towers with
11 respect to the roads, and at that meeting there
12 were a few questions that were asked, and in
13 general there was no concern for those three
14 turbines, and they, I guess, recommended approval
15 to the county commission which eventually occurred.

16 Q. Okay. I do have to admit to some
17 discomfort being that close to a public roadway.
18 I'd have to go back and review what we've done in
19 previous cases. I don't recall any quite that
20 close. I think we've typically tried to keep them
21 within 1.1 times the distance, understanding that
22 that's the fall-down distance if it were to fall
23 down. Now, we've heard more recently that they
24 typically don't fall over; that there's this effect
25 called beer canning, which has become a favorite

1 term of the Commission since learning about it,
2 where they collapse more than just tip over. Are
3 there no alternatives to these locations that are
4 so close to these roads?

5 A. Well, there are always alternatives, of
6 course. I guess in the discussion with the
7 planning and zoning, we did talk about the beer
8 canning and that it's unlikely that it would -- if
9 it were to fail, it would be the entire distance or
10 base to tip of the turbine that would -- that would
11 be the distance covered. I guess there is also,
12 you know, a good chance that if it were to fail, it
13 wouldn't be towards a road or this section line,
14 and these are essentially section line trails that
15 we received a variance for.

16 Q. Is there a distance at which Basin was
17 considering where it thought that it's too close?
18 In other words, 145 looks like the -- 145 feet is
19 what I marked as the closest location. Were there
20 any distances at which you would deem it to be too
21 close to a roadway, even a lightly-traveled section
22 line road or trail?

23 A. I think it would be up to the planning and
24 zoning and county commission to make that
25 determination. They were -- they were comfortable

1 with the location of the turbines along these -- in
2 these areas.

3 Q. I just had one question on a definition.
4 My fellow commissioners sometimes accuse me of
5 making words up, so I ask this with some
6 trepidation, but I'm not that familiar -- the word
7 "hummocky," could you define "hummocky" for me?

8 A. It's kind of a randomly undulating
9 topography. How is that?

10 COMMISSIONER CRAMER: Well, that clears
11 that up.

12 COMMISSIONER CLARK: I'll accept it.

13 COMMISSIONER CRAMER: Sounds like a Jackie
14 Gleason term to me.

15 COMMISSIONER CLARK: That's all I have.
16 Other than I have a note here just noting your
17 service to our country, and thank you for that.

18 THE WITNESS: Thank you.

19 JUDGE WAHL: Any further questions from
20 the Commission?

21 COMMISSIONER KALK: I have a couple.

22 JUDGE HOBERG: Commissioner Kalk.

23 **EXAMINATION**

24 **BY COMMISSIONER KALK:**

25 Q. Once again, thank you for your testimony.

1 It was good stuff. I just want to get a couple
2 things clear, I guess, in my head. Your comment
3 about NEPA is separate from the PSC decision
4 process. I think that's probably accurately true,
5 but there's still some concern that I would have
6 about -- you started out with an environmental
7 assessment hoping you can get to a finding of no
8 significant impact?

9 A. Yes, that's correct.

10 Q. So -- and the Fish and Wildlife Service is
11 a cooperating agency?

12 A. That's correct.

13 Q. So you still feel pretty comfortable you
14 can get to that?

15 A. Yes, sir, that's correct.

16 Q. So the timelines -- when do you want to
17 start building this stuff? June time frame?

18 A. Well, June -- June is not realistic at
19 this point. I would anticipate that the federal
20 process will take at least eight weeks from the day
21 that the environmental assessment is ready for
22 publication. The Rural Utilities Service is
23 currently finalizing their review of that document,
24 and so I think again ballpark here would be
25 sometime between August 1 and September 1.

1 Q. And then get as much as you can
2 constructed before the next season starts. So
3 would it be something -- would it be workable if --
4 the Commission could require a finding of no
5 significant impact as part of the order? Is that
6 something that you're thinking about or what
7 you're --

8 A. Well, again, I think that, you know,
9 that's in the purview of the Commission, but we --

10 Q. I'm just trying to figure out how you're
11 thinking --

12 A. Well, we cannot begin construction until
13 we have all of the approvals, so --

14 Q. But in a perfect world how would you
15 envision this coming together? Because you've got
16 your NEPA over here, you've got your Commission
17 stuff coming together.

18 A. Well, ideally they would be --

19 Q. I actually --

20 A. -- exactly at the same time, but that's
21 never going to happen. Just as an example, we
22 recently permitted the Belfield to Rhame
23 transmission line and that required an
24 environmental assessment under NEPA, and at that
25 time the environmental assessment was not complete

1 or not published at the time of the hearing. So,
2 you know, that was one of our -- it wasn't a
3 late-filed exhibit, but it was one of the list of
4 things that we needed to provide to the Commission
5 before we could begin construction.

6 Q. And that's kind of where we're at today, I
7 guess.

8 A. Yes, sir.

9 COMMISSIONER KALK: Okay. Thank you.

10 JUDGE WAHL: Any further questions from
11 the Commission? Followup, Ms. Levchak?

12 MS. LEVCHAK: I have nothing further.

13 JUDGE WAHL: Followup, Ms. Bendish?

14 MS. BENDISH: No questions.

15 JUDGE WAHL: Thank you very much, Mr.
16 Solie. Ms. Levchak.

17 MS. LEVCHAK: Our last witness is Mr.
18 Nygard, and my personal favorite because he's as
19 old as I am.

20 COMMISSIONER CRAMER: Which isn't all that
21 old.

22 JUDGE WAHL: Mr. Nygard, as you have heard
23 me repeatedly advise previous witnesses, your
24 testimony is required to be under oath and I'm
25 required by law to advise you regarding perjury

1 before administering the oath. Perjury is a false
2 statement of material fact which you do not believe
3 to be true, in other words, generally speaking, a
4 lie. In North Dakota perjury is a Class C felony
5 punishable by a fine up to \$5,000, imprisonment for
6 a period of up to 1 year, or more.

7 (Witness sworn.)

8 JUDGE WAHL: Ms. Levchak.

9 MS. LEVCHAK: Thank you, Your Honor.

10 **MARK NYGARD,**

11 having been first duly sworn, was examined and
12 testified as follows:

13 **DIRECT EXAMINATION**

14 **BY MS. LEVCHAK:**

15 Q. Mr. Nygard, please give us your name, your
16 business address and your occupation.

17 A. My name is Mark Nygard. I am employed by
18 Basin Electric Power Cooperative, and my business
19 address is 1717 East Interstate Avenue, Bismarck,
20 North Dakota. I am the manager of construction in
21 the engineering and construction department.

22 Q. Mr. Nygard, could you please review your
23 employment history?

24 A. I began at Basin Electric Power
25 Cooperative in 1980 in the construction department

1 at the Antelope Valley Station. Upon completion of
2 construction I became a planner and a supervisor in
3 the AVS maintenance department. In January 2007 I
4 assumed the duties of construction supervisor for
5 the scrubber addition at the Leland Olds Station.
6 In 2008 I was named manager of construction for
7 Basin Electric capital projects.

8 Prior to joining Basin Electric in 1980 I
9 had eight years construction management experience
10 at various power generation projects in North
11 Dakota, Virginia and Colorado, both fossil fuel and
12 nuclear.

13 I have a total of 38 years in major power
14 generation facility construction and maintenance.

15 Q. Please state your educational background.

16 A. I received a two-year technical degree in
17 electrical design from Western Technical College in
18 Denver, Colorado, in 1970.

19 Q. What is your responsibility in connection
20 with the PrairieWinds North Dakota 1 project?

21 A. My responsibility will be to provide
22 supervision of the Basin Electric construction
23 coordinators assigned to this project. The
24 construction coordinators facilitate owner and
25 contractor interests, administer project QA/QC

1 requirements, and provide a focal point for
2 communications between project personnel and
3 construction contractors' field supervisors.

4 Q. And what is the purpose of your testimony
5 at this proceeding?

6 A. The purpose of my testimony is to provide
7 an overview of the construction requirements and
8 activities.

9 Q. Would you please describe the construction
10 procedures and work forces required for the
11 construction of the proposed facilities?

12 A. The construction of the 77 towers,
13 operations and maintenance building with associated
14 site work and collector substation will be done in
15 a sequential manner, consisting of a series of
16 crews spread out over the area of the project. As
17 one crew completes work in an area, the next crew
18 enters and proceeds with the next construction
19 activity.

20 The general contractor for each portion of
21 the work will be responsible for determining the
22 size and scheduling of the crews and the equipment
23 needed for each phase of the construction activity.

24 The construction activities for
25 installation of the wind farm and associated

1 facilities include but may not be limited to:

2 Structure location surveying and staking.

3 Tower and facility site preparation.

4 Preparation of access roads.

5 Fence and gate installation and

6 relocation, if required.

7 Foundation excavation and installation.

8 Structure hauling.

9 Structure erection.

10 Balance of plant material hauling and
11 staging, cables, transformers, et cetera.

12 Balance of plant equipment installation.

13 Commissioning and startup.

14 Cleanup and final grading.

15 The various crews indicate a peak of
16 approximately 230 workers will be needed. There
17 will be three separate contracts for the
18 construction of these facilities. The actual
19 manpower needs will vary, depending on time
20 constraints, contractor procedures, terrain,
21 weather conditions, and other factors.

22 A comprehensive post-construction final
23 inspection of the entire project will be performed
24 by Basin Electric identifying items which require
25 corrective action. When corrections have been

1 completed and verified, the contractor will be
2 released from further responsibility.

3 Q. What housing provisions are required for
4 this type of workforce?

5 A. It is expected a percentage of the
6 workforce will obtain housing in hotels and
7 apartments in and around the Minot area. A few
8 workers may bring travel trailers and place them in
9 trailer parks in towns and/or RV parks in the area
10 where these facilities are available. Some workers
11 will be local hires who live in the general area
12 and will commute from their current residence.

13 Q. Do you plan to carry out construction
14 during wet weather?

15 A. Crews will generally shut down if
16 conditions deteriorate to the extent that
17 construction will cause damage to roads or
18 rights-of-way. The construction contract will
19 contain language to control and limit the
20 contractor's activities whenever the property is
21 likely to be damaged.

22 Q. What is done with the spoil from any
23 excavation which is required during construction of
24 the facilities?

25 A. The spoils from all foundations will be

1 used at the structure site for backfill and to
2 create a sloped drainage away from the structure.

3 Q. Mr. Nygard, does this complete your direct
4 testimony?

5 A. Yes.

6 MS. LEVCHAK: Your Honor, this witness is
7 available for cross.

8 JUDGE WAHL: Questions, Ms. Bendish?

9 MS. BENDISH: No questions.

10 JUDGE WAHL: Questions from the
11 Commission?

12 COMMISSIONER CRAMER: I have none.

13 JUDGE WAHL: Thank you very much, Mr.
14 Nygard. Anything further at this time, Ms.
15 Levchak?

16 MS. LEVCHAK: I have nothing further, Your
17 Honor.

18 JUDGE WAHL: All right. We'll be in
19 recess for about ten minutes or so to take
20 advantage of those brownies, if there are still any
21 left. And as I said this morning, if there's
22 anybody here yet who wishes to talk to me about any
23 testimony or comments to the Commission, I'll be
24 here and I'm certainly -- you're certainly very
25 welcome to visit with me.

1 Those of you -- if there's anyone here who
2 has not testified or commented on this project and
3 who plans to testify and comment, we will do that
4 immediately following the continuation of the
5 hearing after the recess. So we'll be in recess
6 until approximately ten minutes after two.

7 (Recess taken.)

8 (Exhibit 8 was marked for identification.)

9 JUDGE WAHL: This is the continuation of
10 the hearing on the application of Basin Electric
11 Power Cooperative, Inc., for a certificate of site
12 compatibility for the construction of a wind energy
13 facility in Ward County, North Dakota. This is PSC
14 Case No. PU-08-75.

15 Commissioners, Mr. Terry Ellsworth has
16 informed me that he wishes to offer an exhibit as
17 additional evidence, and I have agreed that he may
18 do so. Mr. Ellsworth.

19 MR. ELLSWORTH: Thank you, Your Honor.
20 Commissioners, I would like to offer my written
21 testimony that I presented earlier for your
22 consideration.

23 JUDGE WAHL: For the record, the exhibit
24 is marked Exhibit 8. Mr. Ellsworth, would you just
25 hand the exhibit, please, to Ms. Levchak first,

1 please? Ms. Levchak?

2 MS. LEVCHAK: No objection.

3 JUDGE WAHL: And then hand it also to Ms.
4 Bendish.

5 MS. BENDISH: I have no objection.

6 JUDGE WAHL: Exhibit 8 is received. Do
7 you have anything further, Mr. Ellsworth?

8 MR. ELLSWORTH: No, Your Honor.

9 JUDGE WAHL: Thank you very much. Thank
10 you, Commissioners. All right. Is there anyone
11 else who wishes to testify or offer comment at this
12 time? Please state your name for the record.

13 MR. ZIMBELMAN: Curt Zimbelman.

14 JUDGE WAHL: Would you spell your last
15 name, please, Mr. Zimbelman?

16 MR. ZIMBELMAN: Z-i-m-b-e-l-m-a-n.

17 JUDGE WAHL: What is your residence
18 address?

19 MR. ZIMBELMAN: 1308 17-and-a-half
20 Southwest, Minot.

21 JUDGE WAHL: Is that also your post office
22 address?

23 MR. ZIMBELMAN: That is.

24 JUDGE WAHL: You may proceed, Mr. Mayor.

25 MR. ZIMBELMAN: Thank you. First of all,

1 I'd like to welcome the Commission here to Minot.
2 It's not often we get a chance to have you here.
3 We appreciate you being here and certainly
4 appreciate your work on behalf of the people of
5 North Dakota.

6 Good afternoon. I'm appearing before you
7 today to express my support for the PrairieWinds
8 wind power project proposed to be built by Basin
9 Electric Power Cooperative in a portion of the
10 Verendrye REC service area south of Minot. The
11 project would provide an additional piece in
12 helping America achieve energy independence.

13 From a community standpoint, the
14 construction and operation of 77 wind turbines will
15 provide construction workers with employment this
16 summer. The wind turbines in turn will require an
17 estimated eight to ten permanent employees to
18 operate and maintain them, and landowners will
19 receive lease payments which will strengthen their
20 personal financial situations, which is also a
21 positive for the community at large.

22 All of these factors would have an overall
23 positive impact on the State of North Dakota, the
24 north central region of North Dakota and the Minot
25 community.

1 There does not appear to be any
2 significant downside to this project. I strongly
3 urge your favorable consideration of the
4 PrairieWinds wind power project.

5 Thank you.

6 JUDGE WAHL: Mr. Mayor, I'm sorry, there
7 may be some questions for you, but we also have to
8 correct my own error here. Yeah. We need to do
9 that. Yeah, we need to do that. It's hardly
10 necessary, but it's the rule. As you're well
11 aware, your testimony is required to be under oath
12 and I'm required by law to advise you regarding
13 perjury before administering the oath. Perjury is
14 a false statement of material fact which you do not
15 believe to be true, in other words, a lie. In
16 North Dakota perjury is a Class C felony punishable
17 by a fine up to \$5,000, imprisonment for a period
18 of 1 year, or both.

19 (Witness sworn.)

20 JUDGE WAHL: All right. Now, Ms. Levchak,
21 any questions?

22 MS. LEVCHAK: No. Thank you, Mr. Mayor.

23 JUDGE WAHL: Ms. Bendish, any questions?

24 MS. BENDISH: No questions.

25 JUDGE WAHL: Any questions from the

1 Commission?

2 COMMISSIONER CLARK: No. But thank you
3 for being here.

4 COMMISSIONER CRAMER: Thank you for your
5 hospitality.

6 JUDGE WAHL: Is there anyone else who
7 wishes to testify at this time or offer any comment
8 to the Commission?

9 MR. WHITE: Yes, Your Honor.

10 JUDGE WAHL: Please state your name for
11 the record.

12 MR. WHITE: My name is Richard White.

13 JUDGE WAHL: Mr. White, what is your
14 residence address?

15 MR. WHITE: 1201 47th Avenue Southwest in
16 Minot.

17 JUDGE WAHL: Is that also your post office
18 address?

19 MR. WHITE: Yes, it is.

20 JUDGE WAHL: Mr. White, as you know, your
21 testimony is required to be under oath and I'm
22 required by law to advise you regarding perjury
23 before administering the oath. Perjury is a false
24 statement of material fact which you do not believe
25 to be true, in other words, generally speaking, a

1 lie. In North Dakota perjury is a Class C felony
2 punishable by a fine up to \$5,000, imprisonment for
3 a period of 1 year -- up to 1 year.

4 (Witness sworn.)

5 JUDGE WAHL: You may proceed.

6 **RICHARD WHITE,**

7 having been first duly sworn, was examined and
8 testified as follows:

9 MR. WHITE: Thank you, Your Honor.

10 Commissioners and staff, as I said, my name is
11 Richard White, and I'm the chair of the energy
12 committee of the Minot area Chamber of Commerce,
13 and I just have a brief statement.

14 We wholeheartedly support Basin Electric's
15 wind energy project for the following reasons:

16 Number one, we believe it's good for the
17 State of North Dakota. North Dakota is becoming a
18 world renowned leader in developing
19 environmentally-friendly wind energy.

20 Number two, we also think it's good for
21 all residents of the State of North Dakota, as it
22 will enhance and diversify the state's gross
23 domestic product.

24 Number three, we also believe it is good
25 for the consumers, as it will provide an affordable

1 and renewable source of electricity.

2 And, finally, we believe this project is
3 good for the country, as it will help to reduce our
4 dependence upon foreign oil.

5 Thank you very much for coming to Minot.
6 Enjoy your stay here and come again.

7 JUDGE WAHL: Just a moment, please, Mr.
8 White. Ms. Levchak?

9 MS. LEVCHAK: I have no questions. Thank
10 you, sir.

11 MR. WHITE: Thank you.

12 JUDGE WAHL: Ms. Bendish?

13 MS. BENDISH: No questions.

14 JUDGE WAHL: Any questions from the
15 Commission?

16 COMMISSIONER CRAMER: Thank you.

17 COMMISSIONER CLARK: No. Thanks.

18 COMMISSIONER KALK: Thanks.

19 JUDGE WAHL: Thank you very much, Mr.
20 White. Is there anyone else who has testimony or
21 comment to offer to the Commission at this time
22 regarding this matter? Anyone else? All right.
23 We'll proceed with concluding statements.
24 Commission president, Kevin Cramer.

25 COMMISSIONER CRAMER: Thank you, Your

1 Honor. Thank all of you for being here. I always
2 say the best part of public life is the public, and
3 it really is a pleasure to get out of Bismarck and
4 come to where it's all happening.

5 Mr. White, your testimony reminds me, when
6 you talk about gross state product in this case, I
7 was economic development director and I think the
8 entire gross state product was about \$14 billion at
9 the time, and right now we have \$12 billion worth
10 of wind projects in front of us, and probably with
11 siting it's somewhere over a billion dollars to
12 this point. It is really rather remarkable. So
13 it's a great time to do what we get to do and be a
14 part of what we're a part of, and I just appreciate
15 everybody's attention to the matter. And I, as
16 always, appreciated Ms. Levchak and Basin
17 Electric's thorough and very good hearing.

18 Thank you.

19 JUDGE WAHL: Commissioner Tony Clark.

20 COMMISSIONER CLARK: Judge Wahl, if now is
21 the appropriate time, I may ask for a late-filed
22 exhibit from Basin. There were some questions that
23 I had had regarding the proximity of the towers to
24 some section lines, and while I understand that I'm
25 not looking to overrule the wishes of the local

1 zoning board, I do think from a Commission
2 perspective, from a precedent standpoint it would
3 be beneficial for us to have something more in the
4 record to describe these particular, I think,
5 trails Kevin called them so that we can identify
6 clearly why it would be permissible perhaps in this
7 case but not in others.

8 The concern is if the record reflects
9 simply that the Commission sited something within
10 the fall-down distance to a public highway or
11 right-of-way, didn't designate the difference or
12 the reason why, that, you know, two or three
13 applications down the road we get one that is much
14 closer to perhaps a more traveled road. So
15 whatever Basin can file to alleviate my concerns
16 would be helpful.

17 MS. LEVCHAK: We'd be very happy to file a
18 late-filed explanation, memorandum explaining that.

19 COMMISSIONER CLARK: Thanks. And however
20 you think best suits that purpose, whether it's
21 pictures or how it's classified as a road by the
22 county or DOT or traffic counts or something like
23 that just to delineate.

24 MS. LEVCHAK: Certainly. Thank you.

25 JUDGE WAHL: For the record, the late-

1 filed exhibit will be Exhibit 9 described as a
2 memorandum of what, further information regarding
3 locations of towers within what, 1.1 --
4 Commissioner, can you help me?

5 COMMISSIONER CLARK: 1.1 -- I think in the
6 application perhaps they identified 400 feet, which
7 would be about 1.1, I think.

8 JUDGE WAHL: Okay. Within 400 feet of a
9 public right-of-way.

10 COMMISSIONER CLARK: I -- specifically the
11 ones that I noted were A16, E74 and B19.

12 JUDGE WAHL: All right.

13 COMMISSIONER CLARK: Beyond that, I'd just
14 extend my thanks, as well, to Basin and to everyone
15 who's been here. Although these hearings only last
16 a few hours, we fully understand at the Commission
17 that there are many, many hours that go into
18 preparing the evidence and the application and the
19 testimonies and the graphs and charts and all the
20 things that you've provided here today.

21 So we do appreciate the amount of work
22 that it takes and appreciate the importance of the
23 work, too, because these projects that we site,
24 these energy projects are here for decades, and we
25 want to make sure that when they're put in, they're

1 done the right way.

2 Just a note as far as process going
3 forward for anyone who might be interested. I have
4 the generation portfolio, and I would expect that
5 in a typical proceeding like this we will get
6 whatever late-filed exhibits are required to be
7 submitted, and that's dependent on the applicant,
8 how quickly they can get those into us. We'll
9 often ask for a proposed order, and from there the
10 Commission typically will hold a work session or
11 two to go over whatever information we've taken in
12 both at the hearing and through late-filed
13 exhibits, and within a fairly short amount of time
14 after that we have Commission meetings every two
15 weeks, and once we have a comfort level with the
16 order, we can vote on it, and I would look forward
17 to taking that action.

18 So thanks again to Basin for a very
19 thorough application. Look forward to getting the
20 late-filed exhibits.

21 JUDGE WAHL: Commissioner Brian Kalk.

22 COMMISSIONER KALK: Just echo the thoughts
23 of my fellow Commissioners and thank you all for
24 the work. This is a -- this is a challenging
25 project that all of you are involved in because if

1 you look at the other projects around the state,
2 you've got endangered species involved, you've got
3 Department of Defense installations, you've got
4 everything else, but by doing this one the way that
5 all of you have, it sets a good precedence
6 throughout the state and the region.

7 So I want to thank you for your work, and
8 I appreciate everybody coming out today. Look
9 forward to coming back up here for the State Fair,
10 and hopefully we'll see you then soon.

11 JUDGE WAHL: Thank you all very much. The
12 hearing is closed subject to the filing of the
13 late-filed exhibits.

14 (Concluded at 2:24 p.m., the same day.)

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CERTIFICATE OF COURT REPORTER

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I, Stephanie A. Smith, a Registered Professional Reporter,

DO HEREBY CERTIFY that I recorded in shorthand the foregoing proceedings had and made of record at the time and place hereinbefore indicated.

I DO HEREBY FURTHER CERTIFY that the foregoing typewritten pages contain an accurate transcript of my shorthand notes then and there taken.

Dated at Bismarck, North Dakota, this 8th day of June, 2009.



Stephanie A. Smith
Registered Professional Reporter

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