

STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION

Basin Electric Power Cooperative : Case No.
Pioneer Generating Station Phase III : PU-14-829
Project Siting Application :

TRANSCRIPT OF
PUBLIC HEARING

Taken At
14120 Highway 2
Williston, North Dakota
March 2, 2015

BEFORE THE HONORABLE WADE MANN
-- ADMINISTRATIVE LAW JUDGE --

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COMMISSIONERS PRESENT:

COMMISSIONER BRIAN P. KALK
COMMISSIONER JULIE FEDORCHAK
COMMISSIONER RANDY CHRISTMANN

MS. CASEY JACOBSON
MS. ANINE A. LAMBERT
Basin Electric Power Cooperative
Office of General Counsel
Attorneys at Law
1717 East Interstate Avenue
Bismarck, North Dakota 58503

FOR THE APPLICANT.

MR. BRIAN SCHMIDT
Smith Bakke Porsborg Schweigert &
Armstrong
Special Assistant Attorney General
122 East Broadway
P.O. Box 460
Bismarck, North Dakota 58502-0460

FOR THE COMMISSION.

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1 (The proceedings herein were had and made
2 of record, commencing at 9:30 a.m., Monday, March
3 2, 2015, as follows:)

4 JUDGE MANN: Good morning, everybody.
5 We're now on the record. And let the record show
6 that it is 9:30 a.m. on March 2nd, 2015. We are
7 present at the Ernie French Center of the North
8 Dakota State University Williston Research Center
9 in Williston, North Dakota, for the public hearing
10 in the matter of the application of Basin Electric
11 Power Cooperative for a certificate of site
12 compatibility to construct and operate 12
13 reciprocating internal combustion engines, each
14 generating a maximum of 9.22 megawatts of
15 electricity, to be constructed adjacent to three
16 existing 45-megawatt simple-cycle combustion
17 turbines in Williams County, North Dakota. This is
18 Case No. PU-14-829.

19 My name is Wade Mann, and I am the
20 procedural administrative law judge designated to
21 preside over this matter. And at this time I will
22 take appearances for the record, beginning with the
23 applicant.

24 MS. JACOBSON: Casey Jacobson, Basin
25 Electric Power Cooperative.

1 MS. LAMBERT: Anine Lambert, Basin
2 Electric Power Cooperative.

3 JUDGE MANN: And advisory staff.

4 MR. SCHMIDT: Brian Schmidt, appointed
5 Special Assistant Attorney General for the advisory
6 counsel for the Public Service Commission. And
7 next to me is Victor Schock, public utility
8 analyst, and we are going to request that Mr.
9 Schock be allowed to ask questions today.

10 JUDGE MANN: Miss Jacobson, any objection?

11 MS. JACOBSON: No, Your Honor.

12 JUDGE MANN: Mr. Schock, you'll be able to
13 directly ask questions of the witnesses.

14 Also present today are the members of the
15 Public Service Commission, Commissioner Brian Kalk,
16 Commissioner Julie Fedorchak and Commissioner Randy
17 Christmann. I'll be calling on the commissioners
18 shortly for opening comments after we address the
19 procedure for today's hearing.

20 Before we do that, just the issues to be
21 addressed for today's hearing are threefold. The
22 first issue is, will the location, construction and
23 operation of the proposed facility produce minimal
24 adverse effects on the environment and upon the
25 welfare of the citizens of North Dakota?

1 Second, is the proposed facility
2 compatible with the environmental preservation and
3 the efficient use of resources?

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

9 Basin Electric will give its presentation
10 of its case first, call its witnesses, present any
11 documentary evidence it wants into the record. Any
12 witnesses that Basin calls, advisory staff will
13 have the ability to cross-examine those witnesses.
14 The commissioners will also have the ability to ask
15 questions. Once the commissioners have asked their
16 questions, then we will allow for follow-up
17 questions in the same order, same manner.

18 Once Basin has completed the presentation
19 of its case, then any members of the public who
20 wish to offer any testimony will have the ability
21 to do so. We'll call on them to come up to the
22 table. They will be sworn in like any other
23 witness and be subject to questioning from counsel
24 for Basin Electric, advisory staff and the
25 commissioners.

1 I serve as the procedural administrative
2 law judge in this case, meaning I don't make the
3 decision -- the final decision on the application.
4 That will be made by the Public Service Commission.
5 No decision will be made today. The hearing is
6 being recorded and the transcript will be available
7 for later review.

8 Are there any questions with respect to
9 procedure before we continue? Miss Jacobson,
10 anything?

11 MS. JACOBSON: No, Your Honor.

12 JUDGE MANN: Mr. Schmidt?

13 MR. SCHMIDT: No, Your Honor.

14 JUDGE MANN: Okay. And at this time I
15 will call on commissioners for comments.
16 Commissioner Fedorchak.

17 COMMISSIONER FEDORCHAK: I'll make a
18 couple brief comments, but then I think this is
19 Brian's portfolio, so he'll go first.

20 JUDGE MANN: Oh, I'm sorry.

21 COMMISSIONER FEDORCHAK: But just to get
22 things started, thanks everyone for being here,
23 appreciate having this opportunity to talk about
24 this important program -- or this project. And
25 really driving out here this morning, listened to

1 Dennis Hill several times on the radio talking
2 about the need for power in western North Dakota.

3 And so it's been a few months since we've
4 had discussions with Basin and talked about your
5 latest load forecasts and talked to local co-ops,
6 who are here too, to hear from you guys on how
7 things are going, what you're seeing, how things
8 might have changed with the slowdown in drilling
9 and the activity out here in the oil patch and just
10 get a good sense for, you know, how we plan most
11 effectively for something that's really volatile
12 and an industry that changes on a dime.

13 So look forward to our discussion today.
14 It's an interesting project just the way you've
15 proposed it with the 12 different generators,
16 smaller generators with lots of flexibility, so I
17 look forward to hearing more about that as well.

18 So thanks for your work on the
19 application. You guys always do a good, thorough
20 job and I look forward to a productive hearing.

21 JUDGE MANN: Commissioner Kalk.

22 COMMISSIONER KALK: Thank you, Your Honor.
23 Just to follow up a little bit more on what
24 Commissioner Fedorchak said, the big thing for us
25 when we come out to these hearings is to be

1 situated for public input. So for the members of
2 the public out there, this is your chance to say
3 what you like or don't like about the project, so
4 there will be a time when that comes. And that's
5 perhaps the biggest reason we're out here, is to
6 make sure we get access to people's individual
7 thoughts about projects.

8 We are in Williston today. I'm glad to be
9 at the NDSU Center, of course; right? But this is
10 also the girlhood home of Commissioner Julie
11 Fedorchak for those of you that don't know that.
12 And the address to your home is?

13 COMMISSIONER FEDORCHAK: I can't give that
14 out, Brian, because there would be such a flood of
15 people that would drive by it.

16 COMMISSIONER KALK: Very well then. But
17 it is downtown on Second Street.

18 Anyway, just thank the company for putting
19 the prefilled testimony in. That really helps out a
20 lot. I didn't see anything that really jumped out
21 at me as out of the ordinary in this particular
22 case except for this is a new type of unit that the
23 Commission hasn't seen before, so I may ask some
24 technical questions about that. And maybe if you
25 want to -- Casey, as you flesh through, if there's

1 anything different about the air permits or the
2 emergency response, the same kind of questions that
3 you've heard us ask before. I mean, I think
4 everything is certainly in order, but we haven't
5 seen this kind before, so that will be -- I'm glad
6 to see you experimenting with something different
7 that may fit better, but I may have some questions
8 that we don't usually have.

9 And, finally, as members of the Public
10 Service Commission, we've got Jack Schuh and Casey
11 Furey joining us in the audience. You two -- one
12 lady and one gentleman -- raise your hand. They're
13 new to the Public Service Commission. We always
14 bring in new young talent. We're excited to have
15 them aboard. And if you look too, we see our other
16 attorneys, Brian over there and Victor. I now
17 notice that the Public Service Commission, the old
18 people are the people sitting up here. So it's
19 good to see that we're continuing to hire good
20 people. And I thank all the members of our staff
21 too for their work before we get to the hearing.
22 So thank you.

23 JUDGE MANN: Commissioner Christmann.

24 COMMISSIONER CHRISTMANN: I think most
25 everything has been said. I thought it was a good

1 application. I don't have very many things tabbed
2 here that as I went through it, that brought up
3 questions, and I expect that you'll probably have
4 most of those answered by the time you're done with
5 your initial presentation. But we'll see once as
6 we go along what there are for questions.

7 I also want to just reiterate, I guess,
8 what's already been said, but if there's anybody
9 here from the public, please don't feel at all like
10 you're disturbing a process or something to
11 testify. It's the reason why we're out here as
12 opposed to just having the hearing in Bismarck or
13 somewhere that might be more convenient for us. We
14 want to hear from the public. It helps us to make
15 the best decisions possible when we get feedback
16 and information from the people who actually live
17 in the area.

18 So if anybody is thinking of speaking and
19 not sure of the process, the reason we have you go
20 sit through the whole initial part of the hearing
21 is that it's important that you have your comments
22 and your responses to the actual plan, not just
23 what you might have heard uptown or something like
24 that. So we always have the company go first and
25 present what it is that they're actually proposing

1 to do and then we open it up for the public, and we
2 really hope to hear from members of the public.
3 Like I said, it helps us do the best we can. So
4 looking forward to a good hearing.

5 JUDGE MANN: Miss Jacobson, do you have an
6 opening statement?

7 MS. JACOBSON: No, Your Honor.

8 JUDGE MANN: Okay. You can call your
9 first witness.

10 MS. JACOBSON: Your Honor, this might be
11 the appropriate time to enter the exhibits into
12 evidence. I've provided copies to Mr. Schmidt last
13 week, and I believe the plan was to just stipulate
14 to their admission.

15 JUDGE MANN: Ten exhibits?

16 MS. JACOBSON: Yes, Your Honor.

17 JUDGE MANN: Mr. Schmidt, any objection to
18 admitting Exhibits 1 through 10 into the record at
19 this time?

20 MR. SCHMIDT: No objection, Your Honor.

21 JUDGE MANN: Exhibits 1 through 10 are
22 admitted.

23 MS. JACOBSON: Thank you. The first
24 witness is Mr. Josh Rossow.

25 JUDGE MANN: Good morning, Mr. Rossow.

1 MR. ROSSOW: Good morning, Your Honor.

2 JUDGE MANN: Before you testify, I'm
3 required to give you an oath and I need to advise
4 you of the penalty for perjury in North Dakota.
5 It's a Class C felony, punishable by a maximum fine
6 of \$10,000, maximum five years imprisonment, or
7 both.

8 **JOSH ROSSOW,**
9 being first duly sworn, was examined and testified
10 as follows:

11 JUDGE MANN: Okay. Go ahead.

12 MS. JACOBSON: Thank you, Your Honor.

13 **DIRECT EXAMINATION**

14 **BY MS. JACOBSON:**

15 Q. What is your name, business address and
16 occupation?

17 A. My name is Josh Rossow. I'm the project
18 manager for Basin Electric Power Cooperative. My
19 business address is 1717 East Interstate Avenue,
20 Bismarck, North Dakota.

21 Q. What is your employment history?

22 A. I've been employed with Basin Electric for
23 eight years. I started off as a performance
24 engineer at the Leland Olds Station, then I was an
25 environmental coordinator for all of Basin

1 Electric's gas and wind generation, and presently
2 I'm a project manager in the project management and
3 construction group. Prior to that I was an
4 engineer with a Bismarck company called LAS
5 International.

6 Q. And what's your educational background?

7 A. I received a bachelor's degree in
8 mechanical engineering in 2004 from South Dakota
9 School of Mines & Technology.

10 Q. And what are your responsibilities with
11 the proposed project?

12 A. I am the project manager for Pioneer Phase
13 III. My responsibilities include coordinating the
14 various aspects of the project, such as siting,
15 technology selection, permitting, engineering, and
16 so forth, as well as coordinating utility
17 interconnects such as gas and water and
18 transmission.

19 Q. And can you please describe the general
20 location of the proposed project?

21 A. The Pioneer Generation Station is located
22 approximately 15 miles northwest of Williston.
23 More specifically it is six and a half miles north
24 of U.S. Highway 2 on Williams County Highway 5.

25 Q. And can you please describe the status of

1 Phase I and Phase II of the Pioneer Generation
2 Station?

3 A. Pioneer Generation Station Phase I and
4 Phase II consisted of three 45-megawatt simple-
5 cycle combustion turbines. Those phases began
6 construction in 2012 and they were commercially
7 available for operation in March of 2014.

8 Q. And can you please describe where the
9 proposed project is in relation to the existing
10 units?

11 A. If you look at the aerial photo up here,
12 Phase I and II are located there, and Phase III
13 will be located directly south of the existing
14 units.

15 Q. And can you describe why this type of
16 technology was chosen for Phase III instead of the
17 existing technology that exists through Unit I and
18 Unit II?

19 A. A generating unit is typically most
20 efficient when it's at its maximum capacity, and
21 because these are approximately 9 megawatts instead
22 of a larger 45-megawatt unit, we're able to operate
23 the units at full load and start and stop the
24 engines rather than run them at partial load.

25 Along with that, because of the critical

1 nature of power supply in this area, having 12
2 generating units, there's a lot of inherent
3 redundancy because of lots of duplication of
4 equipment.

5 Q. Does this technology exist for the
6 generation of electricity in North Dakota?

7 A. It's actually very common to use
8 reciprocating engines for electricity generation
9 except we normally see them as diesel engines. In
10 this case it's a spark-ignition engine, and it's
11 much larger than reciprocating engines that we
12 normally see. To my knowledge, these will be the
13 biggest reciprocating engines in North Dakota.

14 Q. Can you please describe the schedule for
15 the proposed project?

16 A. If all permits and approvals are received,
17 we intend to begin construction in May of 2015, and
18 construction will largely be complete by April 1st,
19 2016. After that we will begin a detailed process
20 of commissioning and checkout. And after that is
21 complete, the units will be available for
22 commercial operation.

23 Q. And what is the cost of the proposed
24 project?

25 A. The budget for the project is \$161.2

1 million.

2 Q. And can you please describe the workforce
3 needed to construct the project?

4 A. The workforce will peak at approximately
5 225 workers. These workers will primarily consist
6 of skilled folks, such as electricians, pipefitters
7 and millwrights, and because of the labor demand in
8 this area, we would anticipate most of these
9 workers will come from out of state.

10 Q. And can you describe the water and gas
11 supply for the proposed project?

12 A. For the gas supply, we receive the gas
13 from a WBI Energy-owned pipeline. If you look at
14 the aerial photo, across Highway 5 from the project
15 is the ONEOK Stateline Gas Processing Plant, and
16 WBI has the Stateline Pipeline, which delivers gas
17 from ONEOK Plant to the Northern Border Pipeline,
18 and we have a small -- or a short lateral off of
19 that Stateline Pipeline, and that delivers gas to
20 the Pioneer Generation Station, and that pipeline
21 is able to accommodate all the generation on the
22 site.

23 On the water side, the Williams Rural
24 Water District has a pipeline that delivers water
25 to the plant. However, Phase III will require very

1 little water, primarily for potable water uses for
2 the employees and to make up water to the cooling
3 systems occasionally, as well as refilling the fire
4 protection tank in the event of an emergency.

5 Q. Is there a backup fuel for the proposed
6 project if natural gas is unavailable?

7 A. The engines are normally designed to
8 combust natural gas, but they are able to operate
9 on propane if a backup fuel supply is necessary.
10 Currently we're not required to have a backup fuel
11 supply. However, in the fall of 2015 Basin
12 Electric will be joining the Southwest Power Pool,
13 and if and when Southwest Power Pool requires a
14 backup fuel, we could install propane storage on
15 site and combust that fuel. And depending on SPP's
16 requirement, that amount of storage will probably
17 be between 20,000 and 120,000 gallons.

18 Q. How and where will the project
19 interconnect with the electrical grid?

20 A. Mountrail-Williams Electric Co-op owns the
21 Stateline Substation over across Highway 5.
22 Pioneer Station Units 1, 2 and 3 currently
23 interconnect to that substation and they will
24 remain interconnected there. The Sheridan Electric
25 Co-op owns a transmission line that runs along the

1 north edge of our property, and we will
2 interconnect into that line.

3 Q. Have there been any emergency response
4 plans developed for the proposed project?

5 A. Basin Electric has an emergency response
6 plan for the existing units, and the Phase III --
7 that plan will cover Phase III as well. The plan
8 is -- covers a number of different emergency
9 scenarios such as fire or medical emergency or
10 hazmat or possibly even weather-related
11 emergencies.

12 And it's also worth noting that Phase I
13 and II use anhydrous ammonia as a reagent, and we
14 store that ammonia in excess of 10,000 pounds, so
15 we are required to have a risk management program
16 by EPA rules, and part of that is we are required
17 to work with the local emergency planning
18 committee, and so we do that as well as we invite
19 local emergency responders out to the site annually
20 so that we can familiarize them with the site and
21 how it operates and what our emergency procedures
22 are.

23 Q. How many full-time positions will be
24 created by the proposed project?

25 A. There will be six full-time operator

1 technicians added to the staff.

2 Q. Will this -- can this project be operated
3 remotely similar to the other units that exist?

4 A. Yes. The project will be staffed Monday
5 through Friday during normal business hours. On
6 weekends and after hours, the units will be able to
7 be remotely operated from Basin Electric
8 headquarters in Bismarck just like all of our other
9 peaking generation.

10 Q. Would this site be able to accommodate any
11 additional generation or projects?

12 A. There is adequate area and gas supply to
13 support additional generation on this site.
14 However, at this time we don't have any plans for
15 additional generation.

16 MS. JACOBSON: No further questions, Your
17 Honor.

18 JUDGE MANN: Okay. Mr. Schmidt.

19 MR. SCHMIDT: Thank you, Your Honor.

20 **CROSS-EXAMINATION**

21 **BY MR. SCHMIDT:**

22 Q. If I ask you a question and you're not the
23 correct witness to answer it, just let me know and
24 I'll table that for a later witness, so feel free
25 to say I don't know and I'll ask somebody else.

1 Okay?

2 A. Okay.

3 Q. In the application it talks about a
4 switchyard, a 115-kilowatt switchyard will be
5 constructed on the facility. Why is the switchyard
6 necessary with the third phase of the project but
7 was not necessary with Phase I or Phase II?

8 A. In the case of Phase I and Phase II there
9 was an available bay in the Mountrail-Williams
10 Electric Co-op substation to accept a transmission
11 line. However, there are no more available bays,
12 which made it necessary to build a switchyard.

13 Q. Can you just briefly describe what will be
14 within the switchyard and what it will look like?

15 A. In a switchyard -- in this case there will
16 not be any transformation of voltages. It will all
17 be at 115 kilovolts. There will be switches there
18 and breakers as well as overhead conductors located
19 within the switchyard boundaries.

20 Q. How big will this switchyard be? Will
21 there be a building there, or will it be just kind
22 of something that sits on the ground, or what are
23 we looking at?

24 A. You can see the -- I don't know what the
25 exact dimensions are, but you can see the relative

1 size of the switchyard on the aerial photo, and
2 there will be one small control building on the
3 site and, again, I don't know what the dimensions
4 of that are, but it is quite small.

5 Q. In your prefiled testimony you indicated
6 an existing 1800-foot transmission line that
7 connects PGS to the existing ONEOK plant. You
8 further stated that this pipeline is able to
9 accommodate Phase III with only modifications to
10 the meters. What type of modifications to these
11 meters will be necessary to make this pipeline
12 compatible with Phase III?

13 A. The metering station is located right
14 there on the property, and the meters -- the
15 revenue meters on that metering station cannot
16 measure flows low enough to -- for the small engine
17 size as well as measure high enough to measure the
18 flows when all of the generation is running. So
19 it's just a matter of installing different meters
20 that are ranged or calibrated across the range of
21 flow.

22 Q. You were talking about how this Phase III
23 can operate on backup fuel, specifically it was
24 liquefied propane gas. What type of scenario would
25 require this project to run on backup fuel?

1 A. In the event that there was a pipeline
2 emergency where the pipeline was not available and
3 we were called to run, we could then operate on the
4 backup fuel, or perhaps if there was a major gas
5 shortage where we could not even physically
6 purchase gas if needed.

7 Q. Are there any additional safety concerns
8 to consider if this plant has to operate on backup
9 fuel?

10 A. Liquid -- LPG fuel is quite safe. There
11 are some concerns that LPG gas is heavier than air,
12 so if we were to do that, we would have to install
13 LPG sensors down on the floor level. But for the
14 most part, LPG gas is very safe.

15 Q. I understand that Phase III is going to be
16 implementing reciprocating engines, and the
17 application refers to them as RICE engines. I'll
18 refer to them as RICE throughout the remainder of
19 the questions.

20 Now, the Phase I and Phase II operate on a
21 simple-cycle combustion turbine; is that correct?

22 A. That's correct.

23 Q. Other than the fact that these RICE
24 engines do not consume any water and they appear to
25 be more reliable, are there other advantages to

1 using this type of engine over this simple
2 combustion turbine?

3 A. They are more efficient than a simple-
4 cycle combustion turbine, so they require less fuel
5 and less costly to operate.

6 Q. Have you had any personal experience with
7 other plants that have used RICE engines?

8 A. Basin Electric does not own or operate any
9 large-scale reciprocating engine generators.
10 However, it is quite common in the industry to have
11 plants such as this.

12 Q. Will Basin have to implement any new
13 safety policies with regard to the RICE engines
14 that are different from those necessary to manage a
15 sealed combustion engine?

16 A. In the case of the simple-cycle combustion
17 turbines, it is not possible to operate -- or
18 excuse me -- to perform maintenance on that unit
19 inside its enclosure while the unit is running. In
20 the case of these engines, they will be located
21 inside of the engine hull and other units may be
22 running while you're trying to perform maintenance
23 on one of the engines, and so there will be an
24 extensive hearing protection program to protect
25 employees.

1 Q. And how will you ensure that that's
2 implemented?

3 A. Basin Electric has hearing protection
4 programs at all of our coal-fired power plants as
5 well as our distributed generation power plants as
6 well, and it is a required policy that employees
7 wear hearing protection at all times when out in
8 the plant area.

9 Q. How long have RICE engines been used for
10 this type of plant?

11 A. I believe that they've been used at least
12 for 20 or 30 years on this scale.

13 Q. In the binder with the exhibits, can you
14 turn to Exhibit 9, please. It's a map. On the map
15 in the lower right-hand corner it says Basin
16 Electric Pioneer Generation Station. It has two
17 different colors in the legend, a light blue and a
18 yellow. I just want to make sure that we're on the
19 same map.

20 A. I'm sorry. I'm sorry. Could you repeat
21 the question?

22 Q. In the bottom right-hand corner it just
23 says Basin Electric Pioneer Generation Station.
24 Next to it is a legend that has a blue color that
25 says Phase I and Phase II next to it and a yellow

1 color that says Phase III.

2 MS. JACOBSON: It's Exhibit 7.

3 MR. SCHMIDT: Exhibit 7? It's Exhibit 9
4 in my binder, I guess. Is it Exhibit 7?

5 JUDGE MANN: In the exhibits that are part
6 of the record now it's Exhibit 7. Maybe in the
7 prefiled it may have been 9. But, regardless, you
8 can go ahead.

9 Q. (MR. SCHMIDT CONTINUING) As long as we're
10 on the same map, I guess, that's the important
11 thing.

12 The application talks about how this
13 project will require a 2500-foot transmission line
14 connecting to the Sheridan Electric Cooperative.
15 Is this proposed transmission line the yellow line
16 that runs to the west of the current plant -- it
17 runs in a straight line and turns into the
18 switchyard?

19 A. Yes. That is correct.

20 Q. Now, can you just kind of describe where
21 this connects? I know you did on that map up
22 there, but what I'm asking is, here we have a
23 yellow line that runs east and west on the top. Is
24 that the existing Sheridan Electric Cooperative
25 line?

1 A. Yes. That is correct. It runs across the
2 northern property boundary.

3 Q. And it intersects right at the property
4 line -- or right at the property boundary?

5 A. I'm not certain if it's exactly on the
6 property boundary. It might be -- it's very close.

7 Q. Close. I guess I just wanted to ensure
8 that that yellow line at the top was the Sheridan
9 Electric Cooperative line and not a property
10 boundary line. That's kind of where I was getting
11 with that question, just to figure out where the
12 interconnection was.

13 If you follow the yellow transmission line
14 to the south, there's an outline of a stormwater
15 pond.

16 A. Yes.

17 Q. Do you see which one I'm talking about?

18 A. Yes.

19 Q. Are there any concerns with the proximity
20 of this transmission line being that close to the
21 stormwater pond?

22 A. No. There will not be any transmission
23 structures located near the outflow of the
24 stormwater pond, so there won't be any erosion
25 around the transmission structures.

1 Q. How deep will this transmission line be
2 buried?

3 A. It will be overhead.

4 Q. Oh, it will be an aboveground structure?

5 A. Yes.

6 Q. Okay. In the application can you turn to
7 page 6-1. The page has a list of the different
8 permits on it. It's a table.

9 A. Yes.

10 Q. In that table it talks about the minor
11 source air construction permit application you
12 submitted in September of 2014. Do you have an
13 update with regard to that application process?

14 A. I'd like to defer that question to
15 Mr. Miller.

16 Q. Right below that there's an NPDES permit,
17 then next to it it says, "Would be acquired by
18 Basin Electric's contractor," then there's a
19 variety of things that state, "Permit required if,"
20 then there's a laundry list after that. Do you
21 know whether this permit will be necessary for this
22 project?

23 A. Again, I would like to defer that to
24 Mr. Miller.

25 Q. I have a feeling I'm probably going to get

1 the same answer with my next question as well, but
2 I'll ask it anyway.

3 Do you have an update with regard to the
4 conditional use permit with Williams County?

5 A. Again, I would like to defer to
6 Mr. Miller.

7 Q. During your direct testimony you talked
8 about the labor force that will be used for this
9 project. In the application it states that there's
10 going to be approximately 225 employees needed to
11 construct Phase III; is that correct?

12 A. That's correct.

13 Q. Does Basin have any plan to ensure these
14 employees will have adequate lodging?

15 A. The lodging logistics are left up to the
16 contractor to ensure that they have adequate
17 lodging. In construction of the previous phases we
18 have not encountered any difficulty in ensuring
19 lodging.

20 Q. Will there be any new roads that need to
21 be constructed with regard to this project?

22 A. Only on the plantsite to access the 115-kV
23 switchyard as well as a road permit -- or road
24 approach on Highway 5.

25 Q. Does Basin have to obtain any new

1 easements to construct these roads?

2 A. I don't believe so. I'll defer that to
3 Mr. Miller.

4 Q. Will these roads be located solely on
5 property that Basin owns?

6 A. Yes.

7 Q. Is it anticipated that any other
8 landowners will be affected by these roads?

9 A. I do not believe so.

10 Q. In the application it states that the
11 nearest residence is located approximately two
12 miles away from the site. Are you aware of any
13 inhabited buildings or other residences, either
14 temporary or permanent, that have been constructed
15 closer than that since this application was
16 submitted?

17 A. I'll defer that to Mr. Miller.

18 Q. I have some questions with regard to the
19 church that's nearby. Would you like to defer
20 those as well?

21 A. Yes.

22 Q. I just want to ask a couple questions
23 about the scope of your application.

24 In the materials that were provided it
25 indicates that Basin is requesting the entire

1 120-acre parcel where this Phase I, II, and III are
2 located upon to be identified as an energy
3 conversion facility. Why is Basin requesting such
4 a large area for the purposes of siting?

5 A. I'd like to defer that to Mr. Miller.

6 MR. SCHMIDT: I have no further questions.

7 JUDGE MANN: Mr. Schock, any questions?

8 MR. SCHOCK: Yes.

9 **CROSS-EXAMINATION**

10 **BY MR. SCHOCK:**

11 Q. So you talked a little bit about the
12 efficiency of these RICE engines versus the
13 combustion turbine. Can you give us some idea of
14 the numbers, you know, so what's the thermal
15 efficiency factor of a RICE engine versus a
16 combustion turbine?

17 A. The RICE engines will have a heat rate of
18 8800 BTUs per kilowatt-hour, which means that 8800
19 BTUs of energy from the fuel is required to produce
20 one kilowatt-hour of electricity. In comparison,
21 the combustion turbines that are at Pioneer have a
22 heat rate of 9500 BTUs per kilowatt-hour.

23 Q. So basically you can get more
24 kilowatt-hours per therm or per dekatherm of
25 natural gas?

1 A. That's correct.

2 Q. How about the CO2 ratings between the two
3 different types of units? I mean, is the RICE
4 engine rated similarly, better?

5 A. The amount of CO2 produced will be
6 proportionately less than the combustion turbines
7 according to the heat rate.

8 Q. Okay. So, again, on a per kilowatt-hour
9 basis, you would expect less pounds of CO2 per --

10 A. Yes, there will be less pounds of CO2 per
11 kilowatt-hour produced.

12 Q. Excellent. And there was a little bit of
13 talk in the application about the air permit. Is
14 that a better question for Mr. Miller as well? I
15 guess it's questions about what the permits are
16 required for.

17 A. Yes, Mr. Miller will address that.

18 MR. SCHOCK: No more questions. Thank
19 you.

20 JUDGE MANN: Commissioner Kalk.

21 COMMISSIONER KALK: Thank you, Your Honor.

22 **EXAMINATION**

23 **BY COMMISSIONER KALK:**

24 Q. Thank you, Josh, for your testimony. And
25 it sounds like Mr. Miller is queuing up some good

1 questions here.

2 I appreciate our Brian and Victor asking a
3 lot of the same questions I was thinking about, but
4 I did have just a couple followups and mostly just
5 the thought process of why you picked the twelve 9
6 megawatts instead of something larger. So when
7 Basin decides which units to run, will Phase I and
8 II units always run first and then Phase III will
9 kick in, or once this Phase III is built, would
10 then Phase III sometimes be the first mover?

11 A. That will largely be determined by the
12 Southwest Power Pool market once we're -- once we
13 are in that market, and because these are more
14 efficient, I think typically the reciprocating
15 engine would run first.

16 Q. Well, that kind of leads in -- you know,
17 your choice to pick what size project you want, but
18 why don't you build something bigger knowing that
19 we're so energy short not only in our region but
20 nationally with all the challenges out there?
21 You're going to -- you joined an RTO. Why wouldn't
22 you give yourself -- why did you rule out building
23 a 90-megawatt gas or something bigger knowing
24 you're going to need it down the road?

25 A. I would like to defer that to Becky Kern.

1 Q. Okay. That's a resource queue-up
2 question. Okay.

3 And then just a couple. The noise profile
4 you said -- you can address that or can someone
5 else better address the noise profile?

6 A. Mr. Miller will talk about that, but I
7 would like to address a few things that I wanted to
8 address in my testimony but it slipped my mind.

9 The engines are located in an enclosed
10 building and the building has noise-absorbing
11 liners on the inside to reduce noise as well as
12 exhaust silencers on each of the exhausts. And
13 another source of noise are the air-cooled
14 radiators, and the radiators are specially designed
15 to minimize noise.

16 Q. Okay. So basically it's going to be
17 quieter than the other kind -- quieter than in the
18 previous -- that you would have seen in Phase I and
19 Phase II.

20 A. I don't know. I'm not certain how they
21 would compare.

22 Q. Okay. And then the last two questions.
23 What was the CO2 output? Do you have a number?
24 You know, with reagents it's going to be less than
25 it would be with other types, but do you know what

1 the discharge number that it would be? Is it an
2 1800, is it a 1500 PPM, or -- just to get a
3 reference point of what we're talking here.

4 A. Typically simple cycle peaking ranges
5 from, say, a thousand to 1200 pounds per megawatt-
6 hour. I don't know for certain what these engines
7 will produce, but it will be on the lower end of
8 that range.

9 Q. Were the -- depending how you look at it,
10 were the pending CO2 rules the reason you looked at
11 this type of generation instead of something else?

12 A. No, I don't believe that was a factor in
13 our decision.

14 Q. Okay. And I think -- oh, the last one.
15 The ONEOK Plant, I've been up there quite a bit and
16 we've had some -- quite honestly, some issues with
17 that runoff -- that stormwater plant -- pond to the
18 northeast corner. So we're working on that in
19 separate venues. But in your discussion with the
20 water board, do they have any concerns about how
21 this will change the water flow from west to east
22 and how it might affect the Stateline Plant?

23 A. Mr. Miller has addressed that quite
24 extensively and I'll defer that to him.

25 COMMISSIONER KALK: Okay. Thank you.

1 JUDGE MANN: Commissioner Fedorchak.

2 EXAMINATION

3 BY COMMISSIONER FEDORCHAK:

4 Q. Good morning, Josh. Thank you for your
5 testimony. I think this is your first time before
6 the Commission; is that correct?

7 A. That's correct.

8 Q. Well, welcome. A couple followups to
9 Commissioner Kalk. As long as we're talking about
10 the emissions and the EPA, do you know whether this
11 facility will be considered an existing source or a
12 new source when it's operational under the EPA
13 rules? Have you guys looked at that or is it too
14 early to say?

15 A. As far as CO2 regulations go?

16 Q. Yeah.

17 A. This would be a new source.

18 Q. Okay. So you're preparing to meet the new
19 source standards, whatever they might be?

20 A. I'll let Mr. Miller address what the new
21 source performance standards are for these units.

22 Q. Okay. A few more questions on the
23 technology. You talked about some of the benefits
24 of this, the RICE engines and this approach. I
25 haven't been doing this a long time, but I have

1 been doing it enough to know that every benefit --
2 everything has drawbacks too. So tell us what the
3 drawbacks of this approach are, this technology.

4 A. One of the main drawbacks that we have to
5 balance when we're choosing a technology is the
6 capital cost versus the efficiency when it's
7 running, and the reciprocating engines are slightly
8 more capital intensive, but we feel that in this
9 case the improved efficiency makes for a lower
10 lifetime cost than what a simple-cycle combustion
11 turbine would be.

12 Q. And is this the type of thing you can
13 continue to add on to, you could add, you know, 13,
14 14, 15, just put more of these engines on the same
15 site?

16 A. We have designed the site to be able to
17 expand an additional 12 in this direction toward
18 the south if we so chose to, but at this time we
19 don't have any plans to do that.

20 Q. And so this is Basin's first time using
21 this anyplace in your facility -- in your
22 footprint?

23 A. We have a very small diesel generator
24 located at our headquarters, but that's less than
25 one megawatt.

1 Q. So why is that? Why haven't you guys --
2 if this stuff is so great, why haven't you used it
3 before?

4 A. I think that it's only recently been
5 viewed as a mature technology and we felt that it
6 would be a good fit in this case. It has been on
7 our radar before, but we felt that it would be a
8 good fit in this particular instance.

9 Q. Is this type of a generator a good backup
10 for wind and, if so, why or why not?

11 A. Yes, that is one of the benefits of the
12 reciprocating engines, is that they are able to
13 start and stop fairly quickly. In less than ten
14 minutes they can be at full load. And as I said
15 before, they can be run at -- each engine can be
16 run at full load and peak efficiency, so they are
17 very flexible.

18 Q. Okay. How much do you anticipate these
19 running based on your load projections?

20 A. I would like to defer that to Miss Kern.

21 Q. Okay. And then I think my last -- one
22 question in followup on the noise. From what I was
23 reading, the noise study, it sounds like these are
24 fairly loud. Without the silencers, these would be
25 well above the EPA guideline of 55 decibels. Is

1 that correct? Is that a correct kind of a read of
2 the noise analysis?

3 A. I'd like to defer that to Mr. Miller, the
4 details of the noise analysis.

5 Q. Okay. He can talk through all the noise
6 questions.

7 Then my last question for you is,
8 something that I'm hearing more about nationally at
9 different meetings is combined heat and power and
10 the potential that has for improving efficiencies
11 and also generating another source for heat for
12 industrial development. That site has a lot of
13 land next to it. There's a lot of industrial
14 development in Williston. Are you guys looking at
15 combined heat and power at any of your locations
16 where you're expanding generation? Do you have
17 those conversations with customers? Is this on
18 your radar, the development of combined heat and
19 power as you add generation and generation and
20 generation throughout this region?

21 A. Miss Kern would be better suited to answer
22 that question.

23 Q. Okay. But as an engineer, are you -- is
24 that a technology that you're familiar with and
25 your company is looking at, that you're aware of?

1 Q. On your photo there, the main rectangle
2 where it says Phase III, does that signify 8.2
3 acres, or is 8.2 acres just the exact spot where
4 the engines would be?

5 A. I believe that the 8.2 acres is within the
6 fence line. On Exhibit 7 the fence line is shown.
7 That is surrounding the generation block. It has
8 the circles along the line.

9 Q. Okay. Inside of there, what's not in the
10 building, is that a like concrete or asphalt, or is
11 it like crushed rock or something where rainwater
12 absorbs down through, or does all the rainwater
13 have to be caught and discharged?

14 A. Within the road that surrounds the plant
15 area, all of the rainwater is caught and channeled
16 to the stormwater pond. However, there is an area
17 between Phase I and II and Phase III where it's
18 allowed to be absorbed into the ground or take its
19 natural runoff path.

20 Q. And if you added the propane storage,
21 where would that go?

22 A. Again, on this Exhibit 7, I believe, by
23 the -- just north of the entrance road coming off
24 of Highway 5 there are two long cylindrical-shaped
25 items. That is where the propane tanks would be

1 located.

2 Q. And you said if you added -- you said you
3 had designed it in a way that you could add 12 more
4 engines and those would go to the south.

5 A. That's correct.

6 Q. So that area between Unit 3 and Units 1
7 and 2 where -- on this map where gas lines end, is
8 that additional space that's just being held in
9 case more combustion turbines are added, or what
10 goes in there?

11 A. That was the thinking, is that, if so
12 desired, we could add Units 4 and 5 combustion
13 turbines in that area, but, again, we don't have
14 plans for that. We just don't like to box
15 ourselves in.

16 Q. Okay. In the original application -- and
17 maybe this is a Becky question, I'm not sure --
18 there's a statement that Basin Electric would need
19 additional quick-start local generation in 2016 to
20 help with transmission load serving issues in the
21 Williston Basin area until the 345-kV transmission
22 line from Antelope Valley Station to Williston is
23 completed. So does that mean if that were just
24 done, we really wouldn't need to be building this,
25 that this is kind of a makeshift thing to get

1 through the next two years, or is this really
2 needed long term?

3 A. I would like to let Becky answer that.

4 COMMISSIONER CHRISTMANN: I don't have any
5 other questions. Thank you.

6 JUDGE MANN: Miss Jacobson?

7 MS. JACOBSON: Nothing further, Your
8 Honor.

9 JUDGE MANN: Okay. Mr. Schmidt?

10 MR. SCHMIDT: Nothing further, Your Honor.

11 JUDGE MANN: Mr. Schock?

12 MR. SCHOCK: Nothing further.

13 JUDGE MANN: Commissioner Kalk, anything
14 else? Commissioner Fedorchak?

15 COMMISSIONER FEDORCHAK: You can step
16 down. Thank you.

17 JUDGE MANN: I think we'll take about a
18 ten-minute break and start up with the next
19 witness.

20 (Recess taken at 10:23 a.m. to 10:38 a.m.)

21 JUDGE MANN: We're back on the record.
22 Miss Jacobson, you can call your next witness.

23 MS. JACOBSON: Sure. Miss Becky Kern.

24 JUDGE MANN: Good morning, Miss Kern.
25 Before you testify, I need to give you the oath as

1 well. I need to advise you of the penalty for
2 perjury in North Dakota. It's a Class C felony,
3 punishable by a maximum fine of \$10,000, maximum
4 five years imprisonment, or both.

5 **BECKY KERN,**
6 being first duly sworn, was examined and testified
7 as follows:

8 JUDGE MANN: Okay. Go ahead.

9 **DIRECT EXAMINATION**

10 **BY MS. JACOBSON:**

11 Q. What is your name, business address and
12 occupation?

13 A. My name is Becky Kern. My business
14 address is 1717 East Interstate Avenue, Bismarck,
15 North Dakota. I am the director of utility
16 planning for Basin Electric.

17 Q. And what is your employment history?

18 A. For the last two years I've been either
19 the manager or director of utility planning,
20 overseeing the long-term load forecasting and the
21 long-term power supply planning.

22 Prior to that, for almost ten years, I was
23 a power supply engineer for Basin Electric,
24 performing the power supply studies that went into
25 the integrated resource plan modeling, production

1 cost modeling, and basically just reviewing what
2 all of our power supply needs were and what made
3 sense for new resource development.

4 Q. And what's your educational background?

5 A. I have a bachelor of science degree in
6 electrical engineering from North Dakota State
7 University and graduated in 2002.

8 Q. And can you please describe your
9 involvement with the proposed project?

10 A. I was responsible for identifying the need
11 of additional generation through our load
12 forecasting process and subsequent evaluation of
13 our ability to meet our member load obligation.
14 Through the development of integrated resource
15 plans, we were able to identify that additional
16 natural gas generation was needed for this project.

17 Q. And can you just please describe the load
18 forecasting process and how you went about
19 determining the need for the project?

20 A. The load forecast process is performed
21 either every other year or every three years with
22 annual updates and are prepared in accordance with
23 the Rural Utility Service general criteria. The
24 load forecast represents a joint effort by our
25 distribution cooperatives, our generation and

1 transmission cooperatives, and Basin Electric.

2 In order to assure all segments of the
3 cooperative's structure are involved, a load
4 forecast technical committee is established with
5 involvement of the distribution co-ops, the G&Ts,
6 and Basin Electric. The load forecast is prepared
7 on a distribution cooperative basis, and the
8 general criteria of RUS defines a load forecast as
9 a thorough study of a cooperative's electric load
10 and factors that affect those loads in order to
11 determine as accurately and as practical the
12 cooperative's future requirements for energy and
13 capacity.

14 Econometric modeling is used to identify
15 factors in the economy that have historically
16 affected electrical consumption. This is
17 accomplished by using regression analysis software
18 that establishes a mathematical relationship
19 between the economic factors and power usage.
20 Different models are developed for each member
21 depending on the type of load that they serve.
22 Examples of these models include residential, oil
23 related, coal related, ethanol, and biodiesel
24 related forecasts.

25 There are also certain instances that a

1 mathematical equation cannot be developed to
2 predict the future, and in these cases judgmental
3 forecasts are created with the help of the local
4 distribution cooperative serving the loads because
5 of their local knowledge and expertise. The
6 results of these load forecasts are then translated
7 into a model that represent Basin Electric's system
8 on a delivery point basis. This allows for
9 planning of infrastructure, improvements to be made
10 where needed. The load forecast is then monitored
11 on a monthly basis to ensure that the forecast is
12 performing as expected.

13 Also due to the detailed information
14 available from the large commercial sector,
15 individual projects can be monitored to ensure that
16 they are proceeding as planned. And if the load
17 deviates significantly from the forecast,
18 modifications can be made for future load
19 forecasts.

20 So we use that information that is
21 developed with our load forecast, and from the
22 loads by delivery point we evaluate our system by
23 the different general power supply planning areas
24 that we have, and those general power supply
25 planning areas are separated usually by

1 transmission infrastructure constraints or
2 balancing areas or it could be regional
3 transmission organizations.

4 We look in those different power supply
5 planning areas that are existing generation and
6 determine what additional power supply is needed to
7 meet our obligations plus a planning reserve. We
8 then evaluate what the different options are
9 utilizing a production cost model, and additional
10 peaking generation was determined in this past
11 analysis that made the most economic sense to meet
12 our growing obligations for our members.

13 Q. Can you describe the results of the load
14 forecast that justified the need for the project?

15 A. The load forecast that was utilized was
16 the 2014 load forecast. It was approved by our
17 members' board of directors as well as Basin
18 Electric's board of directors in the spring of
19 2014. This forecast showed that Basin Electric's
20 entire membership, which went across nine states,
21 was anticipated to grow almost 1,900 megawatts from
22 2014 through 2035.

23 Q. Has Basin Electric reviewed that forecast
24 in light of decreasing oil prices?

25 A. As I mentioned earlier, our load

1 forecasts, we actually do annual updates and we
2 just completed a new annual update to our 2014 load
3 forecast. That was completed in January and
4 February of this year. And under that we developed
5 a baseline forecast, which was based on the oil
6 conditions that we've seen for about the last year,
7 up until the very end of 2014. We also created or
8 evaluated or developed an alternative case that
9 looked at the lowering oil prices. The baseline
10 forecasts around 2600 megawatts of forecasted load
11 growth in that same time period.

12 As I mentioned previously, the alternative
13 shows around 2100 megawatts of increased load
14 growth. This alternative case, when we looked at
15 it, we assumed almost half the number of drilling
16 rigs that are operating or had been operating
17 previously, and this also said around 2035 about
18 half as many wells were being produced.

19 What we are seeing, though, is a more
20 focusing in on where the drilling is happening at
21 least in the near term so they can continue
22 operating, so some of the fringing -- they're
23 moving away from the fringes and focusing in a
24 little bit more, so we've seen probably a slowdown
25 maybe in the long term, a little bit of a slowdown

1 right now, but we think it will come back.

2 Q. So does that updated load forecast impact
3 the need for this proposed project?

4 A. We believe that this project is still
5 needed. This project was needed to meet our entire
6 system load growth, not just western North Dakota.
7 We did site the unit in this area to help when --
8 the timing of the 345 transmission facilities, but
9 it is a facility that will help meet our North
10 Dakota members, our South Dakota members, as well
11 as all of our other members.

12 Q. And how does the project affect the
13 reliability of the area?

14 A. This project, as well as the Culbertson
15 Generation Station located near Culbertson,
16 Montana, and the Lonesome Creek Generation Station
17 located near Watford City, North Dakota, will
18 provide local generation in the event of
19 transmission line outages as well as local area
20 support as needed.

21 Q. Besides the proposed project, what else is
22 Basin Electric doing to meet the electrical demand
23 of its members?

24 A. Basin Electric is also developing Phase
25 III of the Lonesome Creek Generation Station to be

1 in service in 2016. We've also entered into
2 several power purchase agreements for additional
3 wind generation to be online in 2015 and '16.
4 These additional wind power purchase agreements
5 will bring Basin Electric's wind generation
6 portfolio to almost 1400 megawatts of wind when all
7 completed. We've also entered into a number of
8 power purchase agreements to provide additional
9 capacity and energy to meet our growing obligations
10 as we continue to monitor the load growth on our
11 system as well as evaluate the need for additional
12 generation within our service territory in the next
13 three to seven years.

14 MS. JACOBSON: No further questions, Your
15 Honor.

16 JUDGE MANN: Okay. Mr. Schmidt?

17 MR. SCHMIDT: Thank you, Your Honor.

18 **CROSS-EXAMINATION**

19 **BY MR. SCHMIDT:**

20 Q. Miss Kern, in some of the material that
21 was submitted to us, you discuss how you're
22 responsible for long-term power supply planning.
23 In the material you defined "long-term" as beyond
24 the next 12 to 18 months. How far in advance did
25 you forecast to determine the need for this

1 facility? Was anything looked at beyond 2035?

2 A. Can you repeat your question a little bit
3 for me?

4 Q. Sure. How far in advance did you forecast
5 to determine the need for this facility?

6 A. This facility. You know, we did know that
7 we needed additional generation here several years
8 ago. The determination that it was this particular
9 facility on what we were going to do happened in
10 the summer of 2014, but we had been evaluating our
11 need for additional generation for a number of
12 years.

13 Q. Okay. Now, you're talking about the
14 additional need. You were also talking about
15 forecasting. I guess my question was, how far into
16 the future did you look with forecasting before
17 determining that this project was needed?

18 A. We always -- we perform a load forecast
19 that goes out through 2035 and are always
20 evaluating what the next resource is or the plan
21 for additional generation. We also look at how
22 much timing does it take when you commit to a
23 project, the permitting it takes, the construction
24 and everything. So if you need three years or five
25 years to get a facility online, you always know

1 what your options are in order to plan for
2 additional power supply. So we are continually
3 looking at what additional generation we need.

4 Q. What's the estimated useful life of this
5 Phase III?

6 A. I think the RUS depreciable life is
7 probably around 32, 33 years, but I would believe
8 our engineering group, and we'd probably have to
9 get outside engineering, but on natural gas
10 combustion turbines it would probably be around
11 50-year life. As far as reciprocating engines, I'm
12 not that familiar, but I would believe beyond 30
13 years would be prudent as well.

14 Q. So it's fair to say that the useful life
15 of this Phase III is expected to go beyond the year
16 2035; is that correct?

17 A. Yes.

18 Q. Have you done any forecasting beyond 2035
19 with regard to this facility?

20 A. We are always looking at what our general
21 needs are. We are also factoring in planned
22 retirements or at least wind. We believe some of
23 our existing facilities may need to retire and
24 looking at what additional generation is needed
25 into the future. We are looking at some of our

1 long-term options that may be available 10, 20
2 years out into the future.

3 Q. Is your forecasting limited to the
4 potential demand in the western part of North
5 Dakota, or does it take into account other markets
6 as well?

7 A. Our forecasting, we do a load forecast for
8 every single one of our member distribution co-ops.
9 We've got 138 member systems in our system. Our
10 members span nine states, so we are always, you
11 know, preparing load forecasts for our membership
12 across those nine states and evaluating it and
13 looking at general other areas in the U.S. economy
14 and everything on what's going on in the economy
15 that would affect growth in our area as well.

16 Q. So in the event that there is a population
17 plateau or even a decline in the future for some
18 reason in western North Dakota, will this Phase III
19 project have the ability to supply power to other
20 markets within North Dakota and the surrounding
21 areas?

22 A. This facility would be able to serve other
23 obligations that Basin Electric has outside of
24 western North Dakota as well -- I mean, it's going
25 to be dispatched into the Southwest Power Pool in a

1 greater marketplace, and so it will be dispatched
2 based on how it's needed, but it will be available
3 for generation in other areas.

4 Q. In your testimony you discussed how there
5 are some situations where a mathematical formula is
6 inapplicable for the forecasting. Can you just
7 kind of explain what kind of a situation that could
8 be?

9 A. To some extent, the oil development in
10 western North Dakota, if you look based on history,
11 you know, when you find new areas, it may not be a
12 mathematical equation because history did not
13 foresee that coming, and so we work with the local
14 distribution co-ops to go, okay, you've been
15 talking with your local consumers. You know, are
16 they planning for expanded stuff going on in their
17 service territory.

18 Q. Just to kind of follow up on that, how can
19 you make a forecast with any degree of --
20 reasonable degree of certainty when there's no
21 mathematical formula to lead you in that direction?

22 A. It's a very small portion of our forecasts
23 that use these judgmental forecasts. The majority
24 of our forecast is a mathematical equation, you
25 know, and that's where we do work with, you know,

1 the local expertise and work with Lynn Helms quite
2 a bit as far as to know what drilling is going to
3 be available or what may be permitted and basically
4 just work with our local distribution co-ops, you
5 know, as they're talking to their consumers, what
6 are their plans, what are their drilling plans and
7 everything.

8 MR. SCHMIDT: I have no further questions.

9 JUDGE MANN: Mr. Schock?

10 MR. SCHOCK: No questions.

11 JUDGE MANN: Commissioner Kalk?

12 COMMISSIONER KALK: Thank you, Your Honor.

13 **EXAMINATION**

14 **BY COMMISSIONER KALK:**

15 Q. Thank you, Becky, for your testimony.

16 You talk about judgmental forecasts. Most
17 folks know Mayor Walaker, Denny, from Fargo for
18 years, and he never followed the forecasting from
19 the national flood guys. He went out and looked at
20 it himself and he was always right. So I
21 personally tend to view judgmental forecasting of
22 people with experience as better than any model you
23 can plug in there, but that's my own edification.

24 So just a couple quick ones. What is your
25 reserve margin now at Basin Electric?

1 A. Right now we generally follow the old
2 Mid-Continent Area Power Pool reserve margin where
3 they have about a 15 percent reserve margin for our
4 system in North Dakota and South Dakota. Our
5 obligations that reside in Midcontinent Independent
6 System Operator, or MISO, follow that rule set, and
7 our obligations in the Western Interconnection
8 follow the rule sets over there. As we move to the
9 Southwest Power Pool, we will follow SPP's
10 criteria, and right now they have a 12 percent
11 capacity margin, which is about a 13 and a half
12 percent reserve margin.

13 Q. Okay. So SPP reserve margin is actually
14 lower or higher than MISO?

15 A. MISO is probably about 12 and a half, 13
16 percent and SPP would be about 13 and a half.

17 Q. Okay. So either way you benefited from
18 doing an RTO as far as the reserve margins?

19 A. Yes, we did.

20 Q. So even with that benefit reserve margin,
21 you still needed this power?

22 A. Yes.

23 Q. Okay. And then the projections, it's
24 really tough, period, to figure out what you're
25 going to need, but how do you go into where you're

1 going to need that load at to where you put the
2 generation at? How does that tie in to your
3 planning figure?

4 A. As I had mentioned earlier, we do separate
5 our nine-state system into these power supply
6 planning areas so we have a planning area for our
7 obligations and our resources in MISO, we have the
8 SPP area, and then we also have a Western
9 Interconnection. And so generally when it comes to
10 the SPP area, we're looking at, you know, where is
11 all the load growth happening, where on the
12 transmission system can you actually interconnect
13 facilities. As we go into SPP and are part of a
14 market, additional analysis will be done in the
15 future to conduct where is the best placement as it
16 relates to market dispatch. You want to site your
17 generation where you're going to get paid the most.
18 You don't want to put generation in an area --
19 low-priced area, otherwise, it may -- the offsets
20 aren't -- you're not necessarily going to get paid
21 enough to actually compensate for your costs of the
22 facility.

23 Q. Okay. And that kind of ties in to what I
24 was thinking, but you can't -- South Dakota doesn't
25 have the gas that we do, Wyoming doesn't. The

1 other states don't have the generation opportunity
2 that we have, so it seems to me -- my gut tells me
3 we should be building bigger stuff up here than
4 smaller stuff. I mean, am I missing that?

5 A. You have to have the transmission
6 infrastructure in place in order to move the
7 generation where the load obligations are. And as
8 you look at the transmission system, you know,
9 what -- also what are the market prices of the
10 units going to get dispatched. We've got a lot of
11 land up here you could dispatch, but we also have a
12 fair amount -- a significant amount of existing
13 generation in the state of North Dakota that do
14 tend to bring market prices in North Dakota down
15 because you have a lot of generation here. South
16 Dakota does not have a lot of generation so you're
17 moving the generation into South Dakota from
18 outside of there.

19 Q. So the same way that 345 will help bring
20 power to the northwest, can it someday help out
21 going back the other way?

22 A. Yes, it can.

23 Q. But it will just take some time. So the
24 unit dispatch, I don't think I fully understand how
25 that -- I mean, I get it, but the differences in

1 those prices sound like they're pretty big.

2 A. Well, it can be. The market -- the market
3 dispatches a price for the entire market, so SPP
4 goes from North Dakota all the way down to the
5 northern edge of Texas and they will be dispatching
6 for that entire system, and there will be
7 congestion and losses to get to all the different
8 areas and so you'll be looking at how much
9 congestion and losses are there on the system, so
10 if there's more congestion or more losses on a
11 system, the prices reflect that, and all generation
12 gets paid that price that was cleared by the
13 market. So if the market prices are higher,
14 everyone gets paid higher if they were cleared to
15 dispatch.

16 Q. Got it. And then a little more local
17 question. How could an MDU customer in Williston
18 benefit from this plant being built?

19 A. Well, right now MDU, their loads and
20 resources are in MISO. This facility will be in
21 SPP. They do benefit that we are an interconnected
22 facility and that there is access to additional
23 generation in this area that would also help
24 that -- serve that load, but they are part of a
25 different market as well.

1 Q. So they'll have to go to the market, so it
2 could come from you or it could come from a wind
3 farm somewhere else. Is there a way that you can
4 have an agreement with MDU to give them firm supply
5 of power since you're in different power pools, or
6 are those days kind of gone?

7 A. We can continue to have bilateral
8 agreements with other utilities. Just like I
9 mentioned, we signed -- executed power purchase
10 agreements. We are constantly looking at is there
11 ways that you can buy surplus generation off of
12 another counterparty to delay the installation of a
13 new-build facility and avoid -- I shouldn't say
14 avoid, but delay that capital cost an extra year or
15 two, you know, so that when you do bring on these
16 larger facilities, you can actually operate those
17 facilities more where they were designed to.

18 Q. Okay. Do you -- do you contact MDU when
19 you build your generation? What's your
20 relationship on a day-to-day basis so we're not --
21 we're building the right size generation for our
22 region instead of you build a bunch of 9-megawatt
23 peakers and they build some? What discussion do
24 you have with MDU in this area?

25 A. We have had some discussion with MDU. We

1 did talk here in 2014 about the possibility of
2 jointly developing something. It did not end up
3 panning out. You know, we did talk for a couple of
4 months, and it just made more sense for Basin to do
5 ours and MDU to do theirs. Siting of those
6 resources, you know, where do they need generation,
7 where do we need generation becomes a big
8 discussion point.

9 Q. Is it getting harder because there's now
10 two RTOs that you're operating?

11 A. That does bring additional challenges
12 because we do need our generation in SPP and they
13 want their generation in MISO.

14 Q. Got it. And the last question, Becky.
15 These power purchase agreements you signed for the
16 wind farms, are these wind farms that we've
17 approved that are being built now or are they yet
18 to be approved?

19 A. I believe some of them have come in front
20 of you. I do not know if all of them have. But
21 they are -- there's five new wind projects. I
22 believe four of them are in North Dakota to be
23 online in '15 and 2016.

24 COMMISSIONER KALK: Okay. Thank you,
25 ma'am.

1 JUDGE MANN: Commissioner Fedorchak?

2 COMMISSIONER FEDORCHAK: Yes.

3 **EXAMINATION**

4 **BY COMMISSIONER FEDORCHAK:**

5 Q. Thank you, Becky. It's always interesting
6 to hear from you. We were kind of getting regular
7 updates there for a while and now we haven't, and I
8 think we're going to probably be seeing you a lot
9 in the next couple of months. But I do want to
10 have you go through in a little bit more detail
11 some of the load forecast materials that are in the
12 application, but before we do that, I have a couple
13 other kind of questions.

14 You said something that was surprising to
15 me, so now I need to hear more about this, and
16 Commissioner Kalk followed up on it a little bit,
17 but I'm still a little confused. You said that you
18 site the generation where you're paid the most for
19 dispatch.

20 A. That's one criteria that goes into siting
21 of generation. You've got transmission. Can you
22 interconnect the facility into the transmission
23 system, do you have fuel supply, do you have water
24 if you need it. But one additional piece that's
25 being part of a market now in the future is you

1 want your unit to get paid more if you're going to
2 dispatch it. You've got certain costs, your fuel
3 costs, O&M costs. You're only going to actually
4 generate if the market is high enough that you
5 exceed those costs.

6 Q. So you said that -- you kind of indicated
7 that there's a lot of generation in North Dakota so
8 the price here isn't probably as competitive, but
9 South Dakota is not the same so it might be more
10 advantageous, if I'm hearing you correctly, to
11 build more generation in South Dakota?

12 A. Not necessarily. I mean, that's something
13 we're looking at as far as our next resources, you
14 know, where are our next resources beyond Pioneer
15 Phase III and Lonesome Creek Phase III. Those
16 bring additional support in western North Dakota to
17 have that local generation in the event of
18 reliability needs and stuff like that, you know,
19 the timing of the 345 transmission build-out, local
20 issues that may be going on in that area, but we're
21 evaluating our entire system to see where maybe --
22 that next resource, where should we site it.

23 Q. Tell me, how would you get -- how would
24 the pricing be different in South Dakota versus
25 North Dakota.

1 A. I haven't looked at any specific --
2 anything right now, you know. Our system that we
3 operate is not part of a market as of right now.
4 It joins as of October 1, 2015, so there is no
5 actual information that we can say that, you know,
6 this is the price differential as of right now.
7 Once October 1, 2015, happens, we will see that
8 price differential. Right now forecasts are being
9 made based on models that have been developed, but
10 right now we don't know how it's going to actually
11 operate once we're in SPP.

12 Q. Okay. A slightly different issue, but you
13 mentioned all the wind that you're bringing on.
14 Tell me, what are the strengths and weaknesses of
15 wind for meeting the load that we have in the oil
16 patch?

17 A. The strengths that wind brings is it's a
18 fuel offset. You know, you can get some very low-
19 priced wind these days. Prices right now are very
20 low. We can bring the energy value when it's
21 operating to our membership. When it is
22 generating, it does typically avoid the running of
23 generation through a natural gas combustion
24 turbine. However, it does not bring a dispatchable
25 resource, so when you need the power and the wind

1 is not generating, you do need to have other
2 facilities that can dispatch when you need it, and
3 that's where we've got Pioneer, Lonesome Creek,
4 we've got other peaking generation facilities that
5 can ramp up if wind is not available.

6 Q. Are there any technical difficulties you
7 have experienced with wind in terms of voltage and
8 some of the weaknesses? We've heard from a
9 reliability standpoint that wind just doesn't
10 function the same way on the grid as power
11 generated by, you know, big, large moving pieces of
12 steel.

13 A. It can change on an instant. It can be
14 windy one moment and not the next and all of a
15 sudden you lose generation or it comes -- it ramps
16 up very quickly, you know, so you have to have
17 generation on standby. That's where your
18 regulation comes into play. You know, you've got
19 to have facilities that are capable of moving up
20 and down when wind moves up and down to move in an
21 opposite direction.

22 Q. And currently who manages those
23 fluctuations?

24 A. Currently Western Area Power
25 Administration is the control area operator in this

1 area. Once we join the Southwest Power Pool, SPP
2 will become the control area operator and they will
3 be monitoring, and I believe Western Area Power
4 Administration will be providing some local support
5 in this area as well.

6 Q. Was that a significant factor in the
7 company's decision to use these RICE generators
8 versus the bigger combustion turbine?

9 A. You know, as Josh mentioned, these, you
10 know, being twelve 9-megawatt units, we have the
11 ability to provide very rapid response resource.
12 You know, you can get them up and operating in ten
13 minutes, you can get up to 9 megawatts, you can
14 ramp them up fairly quickly. You know, you can
15 provide that additional support. We can get some
16 ancillary services out of these resources being
17 able to provide quick start or regulation
18 capability if we needed to.

19 Q. And as a resource planner, are you looking
20 at any sort of a sweet spot for the amount of wind
21 or renewables that you think that your system
22 should have to function, you know, reliably? Do
23 you think that there's a cap like at a certain
24 percentage of total generation capacity you want to
25 stay there or below? Are you looking at that type

1 of a formula?

2 A. We haven't necessarily looked at a cap,
3 but we are constantly monitoring how much wind
4 generation do we have within our system, does it
5 make sense to continue to operate at that. You
6 know, we are one of the few systems in the United
7 States that are growing right now. We've got the
8 capability, you know, and ability to add
9 generation.

10 I know a number of utilities have wanted
11 to add more renewables to their facilities, so
12 they're looking at shutting down your more stable
13 coal-based power plants in order to add wind
14 generation, you know, so it will be interesting to
15 watch the reliability of those systems in the
16 future.

17 With us, you know, we're not looking to
18 shut anything down. We're trying to optimize what
19 we have as we add additional generation into our
20 portfolio.

21 Q. Do you know offhand the percentage of
22 renewables you have currently, both in capacity and
23 then in actual function how much is coming from --
24 how much energy use is actually coming from your
25 wind resources?

1 A. I cannot recall an exact percentage, but
2 right now I can state that today we have around 700
3 megawatts of wind generation in our portfolio and
4 we've got around 5000, maybe a little more than
5 5000 megawatts of generation, so that's on a
6 capacity basis.

7 Q. And you don't know the actual energy?

8 A. The energy is probably in that 15 percent
9 range -- 10 to 20, but maybe around 15 percent.

10 Q. Okay. And then you heard me ask Josh
11 about the combined heat and power. Can you talk
12 about how your company is looking at that, or could
13 in the future, anything that you can share with
14 your guys' participation in or potential
15 participation in combined heat and power projects?

16 A. I think, you know, we would be more than
17 interested in having discussions with anyone that
18 -- you know, any industrial person that would be
19 interested in having some of those discussions to
20 see if it does make sense within our service
21 territory and in a facility that we're building or
22 could potentially build into the future.

23 Q. But as of now you haven't had anyone reach
24 out to you?

25 A. Nobody has reached out right now. We are

1 internally looking and evaluating very
2 preliminarily with our Dakota Gasification, the
3 Great Plains Synfuels, you know, is there any sort
4 of opportunities there. I don't know if anything
5 would materialize or not, though.

6 Q. Are any of the local economic developers
7 in contact with you about that type of thing or the
8 State Commerce Department looking at those?

9 A. I personally haven't heard anything.

10 Q. Okay. Then if you could open the
11 application and turn to the section that, I think,
12 you probably put together or had a lot of input in,
13 which is the load forecast, so it's 1-21 in the
14 introduction section. And then maybe go to
15 actually 1-24 and there's that map there. If you
16 could just kind of walk through the maps on those
17 two pages, then I'll have you jump ahead to the
18 last couple of pages on like page 30, 31, 32.
19 Just -- you don't have to elaborate a lot, but just
20 kind of walk through these. You said something
21 earlier that I didn't think matched this, so I
22 might have heard you wrong.

23 A. This area here on page 1-24, the graph is
24 entitled Williston Basin load forecast, so this is
25 just looking at the Williston Basin area in western

1 North Dakota from around -- it's looking like about
2 2013 to 2014 time period through 2035, around 1600
3 megawatts of load growth in Williston, North Dakota
4 -- or the Williston Basin area. When I mentioned
5 earlier around 1900 megawatts, that's our entire
6 nine-state region.

7 Q. Mm-hmm. All right.

8 A. You can see the majority of our load
9 growth last year was -- you know, two-thirds,
10 three-quarters of it was in the Bakken area.

11 Q. Where do you see that? Is that on the
12 map, or are you just saying that?

13 A. No. I'm just saying 1600 megawatts of
14 roughly 2000.

15 Q. Okay. So then the next one walk through.

16 A. Again, this is the Williston Basin area.
17 This is the load growth and it's just on a monthly
18 basis. The previous one was an annual peak. So
19 this is just showing the line would represent the
20 forecast that was prepared, and the green bars
21 would represent the actuals by month that have
22 occurred just to show how is our forecast for the
23 Williston Basin area tracking to actuals.

24 Q. And do you have these updated through
25 January '15 now? Is it fairly accurate?

1 A. It is still fairly accurate. I don't
2 remember -- you know, we're probably within 50, 70
3 megawatts, you know, within there.

4 Q. All right. Okay. Then jump ahead to page
5 30, and you can just kind of buzz through these
6 last three charts too.

7 A. Now, this would be our entire system, so
8 our entire nine-state area. The first one, Figure
9 1-6, would be our total member requirements by
10 sector and so it's identifying how much of our
11 member systems are residential, small commercial,
12 large commercial, oil, ethanol, so you can see the
13 different sectors within our nine-state area.

14 When you go to page 1-31, Figure 1-7, this
15 would be an annual demand by power supplier. So
16 our member cooperatives, most of them have a
17 Western Area Power allocation and some of them have
18 some other power suppliers, so Basin is the
19 supplemental over and above the Western Area Power
20 allocation that they have, and so our obligation to
21 our membership would represent the blue in that
22 graph, and they've got a base amount being supplied
23 by Western or someone else.

24 Q. Okay.

25 A. And then 1-32, this would just show the

1 Basin annual demand forecast. And this one's a
2 little deceiving. It is an annual demand. It
3 could be summer season, it could be winter season,
4 so typically when I've mentioned 1900 megawatts,
5 that's a consistent season. This is just looking
6 at an annual peak.

7 Q. Okay. The one thing that I haven't seen
8 in here, and maybe I just missed it, is a schedule
9 that kind of takes these maps with the demand and
10 shows the company's plans for bringing on
11 generation to meet those. Maybe you can point me
12 to that.

13 A. As we go further into here, I think
14 starting on page 1-47, this is where we break our
15 system into those power supply areas. So 1-47
16 would be our western system, and this is a surplus
17 deficit on a capacity basis. So this is showing
18 our western system, the western interconnection, so
19 we're surplus in our western interconnection.

20 We flip to page 1-48, we have an eastern
21 system, but that is made up of both SPP and MISO
22 obligations, and so that's where you can see that
23 we are starting to fall deficit.

24 When we go to 1-49, that would be our old
25 integrated system which is now becoming the

1 Southwest Power Pool system, and you can see we're
2 deficit in '16, and that's why we need these
3 facilities to meet our obligations in '16.

4 COMMISSIONER FEDORCHAK: Mm-hmm. Okay. I
5 think that's it for me. Thanks, Becky.

6 JUDGE MANN: Commissioner Christmann.

7 **EXAMINATION**

8 **BY COMMISSIONER CHRISTMANN:**

9 Q. What kind of price do you need to run
10 these engines per megawatt or kilowatt?

11 A. I guess depending on the gas price. You
12 know, if we say --

13 Q. At the current gas prices.

14 A. -- \$4 a million BTU or \$5 a million -- per
15 dekatherm, and as Josh mentioned earlier, I think
16 about 8800 -- we could round it to 9000 just to
17 make the math easy on us, but 9,000, you would say
18 9 times 5 for \$5 a dekatherm would be \$45 a
19 megawatt-hour just for the fuel. That doesn't
20 include any O&M. The heat rate was slightly better
21 than that. Gas prices right now are a little below
22 \$5, so I would guess in that \$35 to \$45 for fuel
23 only.

24 Q. So at your \$4 gas -- to make sure I wrote
25 it down right --

1 A. \$4 --

2 Q. -- it would be about \$45 per megawatt just
3 for the fuel?

4 A. \$4 -- 4 times 9 would be 36.

5 Q. Okay. Do you forecast an amount that you
6 think that these engines would be running in
7 your -- or do you just figure it on peak seasons,
8 or how do you plan that?

9 A. When we do our analysis and we determine
10 what type of facility we need, a peaking unit is
11 what was determined was needed because we knew we
12 needed something that was going to operate less
13 than about 20 to 25 percent annual capacity factor.
14 That's why peaking was what was selected. You
15 know, as we look into the future, it may be less
16 some years, you know, lower -- you know, maybe 5
17 percent some years, or it could be closer to 25
18 percent in some years depending on the timing of
19 new resources and where market conditions and gas
20 prices and everything else is. But I would guess
21 somewhere less than 25 percent.

22 Q. When you're -- you talked about the
23 membership and making your forecast and the fact
24 that right now wind is very cheap. So do you
25 calculate in that your members as citizens also

1 have to pay some taxes to pay for the tax
2 incentives that are available for renewables, or do
3 you only calculate in the costs that the company
4 deals with directly?

5 A. And you're talking about renewable energy
6 objectives, that kind of --

7 Q. Correct. Production tax credits for wind
8 primarily.

9 A. Okay. If there's a production tax that
10 somebody is getting from that, you know, I mean,
11 that would be reflected in the price that we're
12 paying for in the power purchase agreement since we
13 generally do power purchase agreements, so those
14 are factored into the prices, so somebody else has
15 taken on that they're getting the production tax
16 credits for those.

17 If we are talking about renewable energy
18 objectives or obligations that certain states have
19 obligations to have certain renewable energy
20 credits to meet state mandates, we do factor in
21 that if we've got members that have obligations in
22 certain states that have those obligations, that we
23 plan to make sure that we can meet those
24 obligations.

25 Q. My point is really more that when one

1 builds anything with subsidies available to build
2 it, it isn't a part of your cost because they're
3 able to sell it to you cheaper than it would be if
4 it were not subsidized.

5 A. Right.

6 Q. But as a member of a cooperative, is there
7 anything ever calculated in for the fact that your
8 members, if you build this, as taxpayers are going
9 to have to pay for the cost of those government
10 subsidies that whoever you purchase the power from
11 received?

12 A. We haven't necessarily looked at it like
13 that, you know, I guess, not calculated it out like
14 that right now. You know, basically just look at,
15 you know, what does the federal law allow for the
16 production tax credits.

17 Q. Is there anything other than just the cost
18 of the power, anything with inertia or anything
19 like that that you figure in? It seems to me with
20 the support that's available for wind right now,
21 you know, we are in sort of a cycle here where you
22 build some wind power and then we come up here and
23 we build some peaking power, then you build some
24 more wind power and build some more peaking power.
25 But at what point does, you know, some kind of

1 baseload generation, a combined-cycle gas plant or
2 something -- how does that figure in?

3 A. That does figure in to all of our future
4 planning. As a note, up until Basin started
5 developing wind itself or entering into contracts
6 for wind generation, Basin was probably 95 percent
7 baseload power inside of its generation portfolio.
8 We have significant surpluses during off-peak and
9 colder-month time period because we were 95 percent
10 coal-based generation.

11 You know, as we go out into the future,
12 we're looking to develop some sort of optimal
13 portfolio. Your obligations aren't flat
14 year-round. You know, they cycle during hot times,
15 cold times, you know, at nighttime, daytime, and so
16 you're trying to develop an optimal portfolio,
17 which is a mixture of baseload, intermediate,
18 peaking generation, and where does wind fall in
19 there.

20 You know, so because Basin has so much
21 baseload generation, we have not needed to develop
22 the baseload in the recent last eight to ten years.
23 We are evaluating in the future, you know, when
24 does Basin need additional baseload generation, at
25 what point, you know, will we retire some of our

1 existing resources, is it 20 years from now, you
2 know, what are our options going to be.

3 So we will be factoring that in as well
4 as, you know, as our systems continue to grow,
5 we've got more than 5,000 megawatts today of
6 generation, and as we add more generation into the
7 future, you know, what's that right mix of
8 baseload, intermediate and peaking generation.

9 Q. And you really said the words that I
10 couldn't come up with, but from my perspective, one
11 of the most important things that I think we do
12 here is searching for that optimal mix --

13 A. Yes.

14 Q. -- that you talked about.

15 A. Mm-hmm.

16 Q. So at this point in time what do you feel
17 is the optimal mix for an upper midwest state like
18 this?

19 A. It all depends on what your obligations
20 are. You know, are they rural, are they urban.
21 You know, what type of a load factor do your
22 consumers have. You know, are you a 50, 60 percent
23 load factor obligation. Are you a 70, 80 percent
24 load factor obligation. Every utility is going to
25 have a slightly different optimal portfolio to meet

1 their obligations.

2 You know, Basin and its members probably
3 have a 65 percent load factor on average, you know,
4 so you need some -- some fair amount of baseload
5 generation, an amount of intermediate. You know,
6 you could throw numbers out, you know, maybe 50 to
7 65 percent baseload, some magnitude of
8 intermediate, and the rest would be peaking.

9 COMMISSIONER CHRISTMANN: Thank you. No
10 other questions.

11 JUDGE MANN: Miss Jacobson?

12 MS. JACOBSON: Nothing further, Your
13 Honor.

14 JUDGE MANN: Mr. Schmidt?

15 MR. SCHMIDT: Nothing further, Your Honor.

16 JUDGE MANN: Mr. Schock?

17 MR. SCHOCK: No.

18 JUDGE MANN: Commissioner Kalk?

19 COMMISSIONER KALK: Thank you, Your Honor.
20 Just some followup.

21 **FURTHER EXAMINATION**

22 **BY COMMISSIONER KALK:**

23 Q. I'm glad we have a court reporter here
24 today because what you just said, I mean, it's good
25 stuff. I mean, you walked it through, that you

1 gave us your candid answer what you think you need
2 for baseload and intermediate. I mean, I think
3 that's -- that's one of the challenges that I've
4 kind of struggled through is that we all grew up
5 with big baseload coal, but the grid has changed,
6 and that's just the way it is, and so you're trying
7 to figure out what the future brings and trying to
8 keep your costs down, and your point about you
9 don't need 95 percent baseload when you don't need
10 power all the time. It's the very start point that
11 I hadn't heard quite so eloquently put, but it was
12 good.

13 On that, what kind of contract do you get
14 for gas? When you negotiate -- and if it's trade
15 secret, you won't tell me, I'm sure, but are you
16 able to get a 20-year contract for gas prices or a
17 five-year contract, or do you have to negotiate
18 annually?

19 A. You can do, you know, a lot of different
20 things as you want. Personally I'm not involved
21 with the actual gas contracting. Our marketing
22 group is the entity at Basin Electric that does a
23 lot of that. You know, you can, you know, contract
24 with a gas field, you know, and lock in prices or
25 you lock it into an index or a hub price or

1 something like that, you know, you pay some cost
2 over a hub price or something like that. You
3 could -- you know, you can hedge a little bit, you
4 know, into the future if you think prices are down
5 now or they're down in the future, prices are going
6 to come up, you know, you could hedge a couple
7 months or a couple years depending if you can find
8 the counterparties.

9 Q. Suffice it to say the fact that you've got
10 this located across from ONEOK was a good idea that
11 was put into play that should help you keep your
12 gas prices down for a long time?

13 A. We should have adequate gas supplies
14 there, yes.

15 Q. Because when you kind of walked through
16 those numbers of how much it is per megawatt, those
17 are really low numbers. Those get into almost what
18 it could be for -- I hate to say it, but mine-mouth
19 coal these days is getting close to some of those
20 prices.

21 What is the percent you get for energy
22 capacity on this system? Like on the Southwest
23 Power Pool, what do they give you for this?

24 A. For what?

25 Q. For the capacity side of it.

1 A. This facility, this project?

2 Q. This project -- I'm sorry -- yeah.

3 A. We would get the credited value of this,
4 so we would look at what rating can it achieve in
5 the summertime. So I think Josh mentioned about
6 111 megawatts or so. We would get 111 megawatts,
7 112 megawatts of accredited generation from this
8 facility, so the full hundred percent capability of
9 the facility.

10 Q. Okay. He said that, but I didn't put two
11 and two together. So you get a hundred percent on
12 this?

13 A. Because it's a dispatchable resource, we
14 can call on it whenever we need to.

15 Q. Huge. Okay. And the last question is
16 outside the box a little bit, but I've heard a lot
17 of discussion about you buying -- Basin buying some
18 power from Minnkota. How does that figure into
19 your energy needs?

20 A. They're a counterparty with surplus
21 generation that we've been able to negotiate a
22 power purchase agreement. We are actually
23 transacting power between us right now. You know,
24 they are inside of MISO, but with their new Center
25 to Grand Forks line --

1 Q. Right.

2 A. -- I think there's also an interconnection
3 at Mandan, North Dakota, that intercepts with the
4 Basin Electric-WAPA integrated system and so we
5 actually get our power out of the Mandan area into
6 our system, and we were able to negotiate something
7 so that power is actually -- and what we've done in
8 technical terms real quickly is pseudo-tied that
9 generation, so the WAPA balancing area is the one
10 that's included that generation under that contract
11 into our balancing area and so it's not being --
12 that 50 megawatts or whatever that's under the
13 contract right now is not being dispatched by MISO
14 at the moment.

15 COMMISSIONER KALK: Okay. I know we have
16 a meeting tomorrow that we will be talking about
17 this in some more detail. I'm just curious. Thank
18 you.

19 JUDGE MANN: Commissioner Fedorchak.

20 **FURTHER EXAMINATION**

21 **BY COMMISSIONER FEDORCHAK:**

22 Q. One more followup on the gas -- the price
23 of gas. Do you have somebody here who can tell
24 us -- you said there are a number of different
25 options for securing, you know, a long-term

1 agreement on gas, but you weren't sure what it was
2 for this project. Is there somebody who knows
3 that?

4 A. Our marketing and asset management
5 department at Basin Electric is the one that
6 handles the actual gas contracting and they are not
7 in attendance today.

8 COMMISSIONER FEDORCHAK: Okay. I'm seeing
9 Josh nodding, so maybe we'll get him back up.
10 Okay. That would be good. I'm just interested if
11 you do have a long-term contract or -- you know,
12 how you're securing the price. Even though you're
13 right next to ONEOK, it doesn't mean they're going
14 to sell it to you --

15 THE WITNESS: Right.

16 COMMISSIONER FEDORCHAK: -- for a set
17 price. Okay. Thanks.

18 JUDGE MANN: Commissioner Christmann?

19 COMMISSIONER CHRISTMANN: No questions.

20 JUDGE MANN: Anything further, Miss
21 Jacobson?

22 MS. JACOBSON: No, Your Honor.

23 JUDGE MANN: Okay. You can step down.
24 Thank you. And you can call your next witness.

25 MS. JACOBSON: Mr. Cris Miller.

1 JUDGE MANN: Good morning, Mr. Miller.

2 MR. MILLER: Good morning.

3 JUDGE MANN: I need to give you the oath
4 as well, advise you of the penalty for perjury in
5 North Dakota. It's a Class C felony, punishable by
6 a maximum fine of \$10,000, maximum five years
7 imprisonment, or both.

8 **CRIS MILLER,**
9 being first duly sworn, was examined and testified
10 as follows:

11 JUDGE MANN: Go ahead.

12 MS. JACOBSON: Thank you, Your Honor.

13 **DIRECT EXAMINATION**

14 **BY MS. JACOBSON:**

15 Q. What is your name, business address and
16 occupation?

17 A. My name is Cris Miller. I work with Basin
18 Electric Power Cooperative. We're located at 1717
19 East Interstate Avenue, Bismarck, North Dakota.

20 Q. And what is your employment history?

21 A. I'm employed as a senior environmental
22 project specialist. I prepare permits for future
23 transmission generation projects.

24 Q. And what is your educational background?

25 A. I graduated from North Dakota State

1 University in 1982 with a bachelor of science in
2 civil engineering.

3 Q. What is your responsibility with the
4 proposed project?

5 A. I coordinate the -- in preparation of all
6 reports, studies and applications to acquire the
7 permitting requirements from whether it's a local,
8 county, state or federal permit.

9 Q. Was there a federal nexus for the proposed
10 project that required compliance with the National
11 Environmental Policy Act?

12 A. No, there was not.

13 Q. Can you please describe the overall land
14 use of the proposed site?

15 A. The land that's at the Basin Electric's
16 120-acre owned parcel, other than the seven acres
17 that are within the fence line of Phase I, the rest
18 of the remaining land is being utilized as
19 agricultural purposes at the moment.

20 Q. And can you please describe the land use
21 surrounding the proposed project?

22 A. As the photograph shows from the exhibit,
23 there's the ONEOK Stateline processing plant
24 immediately across Williams County Road 5. There
25 are certainly oil and gas production facilities

1 around the area, but for the fundamental land use
2 it's still predominantly agricultural.

3 Q. Can you please discuss the nearest
4 residence or other buildings that are located close
5 to the proposed project?

6 A. Certainly. There is a -- just north of
7 our facility approximately three-quarters of a mile
8 there is a church. There are some residences, I
9 believe, about a mile and a half, a mile and
10 three-quarters surrounding the facility.

11 Q. Does the proposed site contain any
12 avoidance or exclusion areas?

13 A. No, it does not.

14 Q. Has Basin Electric received all permits
15 necessary for construction and operation of the
16 proposed project?

17 A. No, we have not. There are several
18 currently ongoing. We are still waiting our North
19 Dakota Department of Health permit to construct for
20 the air permit. We also have an application in to
21 Williams County for the conditional use permit. We
22 have received an approval letter from the Hebron
23 Township, which was part of our application process
24 to Williams County.

25 Q. Were there any studies done to assess the

1 noise levels of the proposed project?

2 A. Yes, there was. When we went through the
3 permitting process for Phase II, we did a predicted
4 model for the noise emissions from the facility.
5 In the fall of 2013 we hired Burns and McDonnell,
6 who actually performed the initial predictive
7 modeling. They went out there and assessed the
8 actual noise that was being emitted from the
9 Pioneer Units 1, 2 and 3. So what they did then is
10 they qualified that -- the predictive model. There
11 was very good relationship between the model and
12 actual conditions found.

13 And then we did the third step where we
14 actually put the Pioneer Phase III and then we did
15 a predictive model of those noise levels, the same
16 receptors.

17 Q. And will the proposed project's noise
18 levels be under the EPA guidelines with respect to
19 noise?

20 A. Yes. The EPA guideline is 55 dBA for a
21 day/night level. Our predictive noise emissions is
22 approximately 49.5, .4, somewhere in that range, so
23 less than the 55 dB level from EPA.

24 Q. Mr. Miller, have there been any other
25 environmental issues associated with the proposed

1 project that you're aware of?

2 A. As far as the proposed project, there's
3 the -- going through the county, the local township
4 board, they live locally and they farm, they
5 actively engage around the facility. The township
6 board brought up an issue with our Pioneer Phase I
7 and II. That stormwater pond we actually had kind
8 of a leaking discharge valve that put that water
9 into the ditch so it had a little seeping area and
10 some cattails were growing. Since that was brought
11 to our attention here this winter, we have made a
12 commitment to go out this spring once the ice is
13 off our pond and off our valve open box. We will
14 look at that and make that repair.

15 The other concerns that we were made aware
16 of from the township side had to do with the local
17 runoff. And you'll see from -- in our application
18 and see in the site, our site is basically on a
19 crown in that drainage area. So for Pioneer Phase
20 I and II, the stormwater pond is located on the
21 northeast side of the property, it discharges in
22 the county road ditch, and then it flows to the
23 north approximately about a half a mile, then it
24 flows to the east down that drainage.

25 For Pioneer Phase III, the stormwater pond

1 is on the west side of the project, and so it goes
2 down a whole entirely different drainage. So we do
3 not believe that there's any concerns, the lands
4 around our property will continue to be farmed by
5 the existing tenant.

6 And in the -- one other step. In the
7 Williams County conditional use permit process, the
8 local Williams County Water Board is a part of that
9 review process, so our stormwater pond discharge
10 criteria and design will be going through that
11 local expertise.

12 MS. JACOBSON: Thank you, Mr. Miller. No
13 further questions.

14 JUDGE MANN: Mr. Schmidt.

15 MR. SCHMIDT: Thank you, Your Honor.

16 **CROSS-EXAMINATION**

17 **BY MR. SCHMIDT:**

18 Q. Earlier we heard a little bit of testimony
19 about a couple of roads that will need to be
20 constructed to build Phase III.

21 A. Correct.

22 Q. Will Basin have to obtain any new
23 easements to construct these roads?

24 A. We do not need to obtain any easements,
25 but from County Road 5 for the new approach on the

1 east side of the plant site we'll need an approach
2 permit from Williams County, from the county
3 engineer.

4 Q. Has that application been submitted?

5 A. Yes, it has. Then for the road that's off
6 the quarter section line to serve and support the
7 switchyard, that's a township road and that is part
8 of our -- it was reviewed by the township board and
9 there's no permits required.

10 Q. And all of the property where these roads
11 will be located is owned by Basin; is that correct?

12 A. That is correct.

13 Q. You briefly testified about the nearby
14 residences. In the application, and I think you
15 said it was about a mile and a half to a mile and
16 three-quarters away the nearest house was or place
17 where somebody lived. Are you aware of any
18 inhabited buildings that have been constructed,
19 either temporary or permanent housing, since this
20 application was submitted?

21 A. I am not aware of any additional homes or
22 residences since we did our modeling.

23 Q. You also testified that there's a rural
24 church located about three-quarters of a mile away
25 from the proposed site. Are you aware if this

1 church is currently active or is it abandoned?

2 A. No, it's an active church.

3 Q. Has Basin had any interaction with this
4 church in the past?

5 A. Not with the church proper. We certainly
6 have had our discussions with the Hebron Township.
7 No comments or no -- no, I guess, input has been
8 made.

9 Q. Will construction of Phase III have any
10 additional anticipated adverse impacts on this
11 church?

12 A. There will be a slight -- from our
13 predictive modeling, if you look at the numbers,
14 it's a slight tick upwards, of course, but it's
15 still well below the EPA guideline.

16 Q. And you're referring to noise?

17 A. Yes. Certainly, you know, from a visual
18 aspect anybody around the area, our current exhaust
19 stacks are approximately 80 foot in height.
20 Pioneer Phase III it will be two exhaust stacks.
21 Those stacks will be approximately 170 foot in
22 height. So, you know, our visual footprint will be
23 greater.

24 Q. The materials that were submitted to the
25 PSC indicated that Basin is requesting the entire

1 120-acre parcel to be identified as an energy
2 conversion facility. Why is Basin requesting such
3 a large area for siting purposes?

4 A. Well, we kind of had this conversation our
5 first go-around. We have the -- you know, as
6 Mr. Rossow indicated, we have the generating
7 facility itself within a fence line. That's
8 approximately a little over eight acres. Then we
9 have the disconnected switchyard, is approximately
10 four. We'll have our lay-down yards that are
11 temporary, but they're being to the south of the
12 project. Then we have our access road that's going
13 to be permanent to the switchyard. And then we
14 have our 115 line running up to the north to
15 intersect Sheridan Electric. So I guess
16 geometrically it's a nice box. If we want to start
17 parceling out, you know, a narrow corridor -- I
18 don't believe there's a threshold, I don't believe
19 there's a guidance that the North Dakota Public
20 Service Commission has on identifying what should
21 be within an energy conversion facility. So the
22 entire 120 acres, it's been zoned industrial by
23 Williams County and then we have all these
24 different supporting infrastructure for our project
25 so it made for a nice box.

1 Q. So is it fair to say this is just kind of
2 an attempt to streamline any further additions
3 Basin wishes to make to this property?

4 A. We are certainly aware of any addition
5 that would be -- that could be placed at this
6 facility. It certainly would have county, local
7 requirements and approvals, but the North Dakota
8 Public Service Commission also has approvals
9 required for anything over 50 megawatts or
10 transmission lines over 230, et cetera.

11 Q. I guess just briefly in one or two short
12 sentences, why is it necessary to make this request
13 with regard to this project?

14 A. You're referring to the --

15 Q. I'm referring to the 120-acre request.

16 A. Why we're making the request for the 120
17 acres, we need to identify what is the energy
18 conversion facility that's been requested from the
19 Public Service Commission in the past. So we know
20 that the request is going to be made, we threw it
21 out there to be the 120 acres.

22 Q. During your testimony you talked about
23 noise a little bit. The noise study in the
24 application factors in noise that's generated by
25 the nearby ONEOK plant as well as the PGS plant.

1 How do you go about separating the noise and the
2 anticipated noise generated by PGS from the noise
3 generated by ONEOK?

4 A. The only thing we did -- that verification
5 process we talked about that we did last fall where
6 we did actual noise survey meter. That process in
7 itself, ONEOK Gas Processing Plant was operating,
8 we believe it was at a hundred percent or near full
9 capacity, so that incorporated all noise, whether
10 it's highway noise, whether -- in fact, if you go
11 to that study, our nighttime noise measurements
12 actually we kind of had to kind of toss out. The
13 insects created more noise on an offline condition
14 than it was during the daytime when the insects
15 weren't making so much noise.

16 One thing Burns and McDonnell did
17 incorporate into their predictive modeling is that
18 they know that noise isn't one noise source.
19 Next-door to another noise source, if both of them
20 are, just for an example, say, 50 decibels, put
21 them together, they don't add up to a hundred
22 decibels. They're not additive. So it all depends
23 the frequencies that the sound is being emitted.
24 And, I guess, a point of reference is a 10-decibel
25 increase is approximately a doubling of the sound

1 pressure. So the predictive modeling, we know that
2 ONEOK exists, our actual noise measurements
3 incorporated both sounds, so by not indirect
4 measurements, we would have great confidence that
5 both plants could be operating and we would still
6 be below the guideline.

7 Q. Can you turn to Exhibit 7. It's the same
8 map that we referenced earlier.

9 A. Yes.

10 Q. Exhibit 7 depicts a stormwater pond. In
11 your testimony you talked a little bit about the
12 drainage. You just said it would drain differently
13 than the existing pond. Can you just kind of talk
14 me through how the water will drain out of this new
15 proposed stormwater pond?

16 A. Certainly. I was wondering if there would
17 probably be a better map. It's in the application,
18 though.

19 Q. Okay.

20 A. Figure 3-1. I guess I will refer to
21 Figure 3-2 as well. But Figure 3-1 you can see our
22 120 acres outlined by the -- we'll call it the gold
23 box, but you also see all the drainages around that
24 flow off to the east side, so it's pretty obvious
25 that our plant site is kind of on the crown. There

1 is a surface drainage divide, as I previously
2 testified, water that flows to the -- from Phase I
3 and II, flows to the northeast and to the north so
4 that would go down the -- I believe it's referred
5 to as Painted Woods drainage.

6 Our stormwater pond for Phase III is on
7 the west side of the property, and we see from the
8 blue -- we'll call it tributaries of the Little
9 Muddy Creek, so it actually flows west from our
10 pond approximately a mile and then heads south to
11 interconnect with the big drainage of the Little
12 Muddy and which eventually flows down to the
13 Missouri River.

14 Q. Is it anticipated that the drainage of
15 this pond will have an adverse effect on any
16 agricultural use of adjacent landowners?

17 A. No. And that's one of the -- when we met
18 with the township and we met with the adjacent
19 landowner back in January when we discussed the
20 stormwater pond for Phase I, we walked through on
21 how we would operate this pond. Although the
22 Pioneer Phase I and II has a -- I'll call it a
23 process, an NPDES permit, we do have some process
24 water that goes into that north pond so it has to
25 meet -- there's a valve that's in the bottom of the

1 outlet. When the water level gets high enough, we
2 make sure we have the water quality -- the water
3 quality standards as far as discharge.

4 For, as Mr. Rossow testified, the Pioneer
5 Phase III, the only need for water on the plant
6 site is for potable water purposes, showers,
7 lavatory, and drinking water, et cetera, and for
8 makeup to the cooling system. But there is no
9 discharge off site or into any pond. So for Phase
10 III that pond is going to be strictly for
11 stormwater.

12 North Dakota rules allow that if we apply
13 for a certificate of non-exposure and that it only
14 be stormwater and that our plant is designed -- it
15 has the spill prevention countermeasure design, we
16 don't have open oil or -- what do you want to call
17 it -- do maintenance activities, you know, on the
18 outside so we have very little risk for oil and
19 grease or any type of runoff exposure, we'd operate
20 that pond basically like a storm sedimentation
21 pond. The valve -- there will be kind of a little
22 dike there to provide capacity for -- I believe
23 it's a 10-year -- 24-hour 25-year rainfall event
24 and then that water would just overflow by itself.
25 So whatever sediment may be picked up during that

1 rainfall event would be dropped off in a pond.

2 The other thing you'll note, since we're
3 on this crown, so it's a very defined drainage, so
4 whatever -- we're not creating water. All we're
5 doing is delaying the release of it off of our
6 plant site. Once that sedimentation basin gets
7 filled up and it's going to overflow naturally, it
8 is going to be at the same rate that it would
9 normally otherwise. We're not combining drainages.
10 We're just letting water go down its natural
11 drainage.

12 Q. So is it fair to say that the existing, I
13 guess, water drainage system for Phase I and Phase
14 II is mutually exclusive from the drainage system
15 for Phase III?

16 A. That is correct.

17 Q. The application discusses that there will
18 be some farmland that will be taken out of
19 commission if Phase III is put in. There will also
20 be some additional farmland that will be
21 permanently and temporarily, I guess, taken out of
22 commission due to staging activities and the actual
23 Phase III building that will go there, and it's a
24 fairly nominal amount. However, is there a
25 potential for adjacent landowners to be deprived of

1 any use of their agricultural land as a result of
2 the construction of Phase III?

3 A. We don't believe so. It will just be our
4 tenant on the land that we own. He's farmed that
5 on a rental type of an agreement the last couple of
6 years. So this year prior to the spring planting,
7 we'll be out there and putting markers out there so
8 he does not plant something, the next week, once we
9 get our permits, go out there and destroy his crop
10 seeding. So we'll coordinate with our tenant.

11 Q. The application discusses noxious weeds
12 just briefly. I just have one or two quick
13 questions with regard to that. What is Basin's
14 plan to prevent the spread of noxious weeds with
15 regard to the construction of Phase III?

16 A. Our plan is to once the -- you know, we
17 get our permits, we start construction, we'll peel
18 off the topsoil and have that stockpiled for final
19 reclamation when we're all done with this plant.
20 That stockpile will be seeded with grass, you know,
21 to make sure it's preserved. Once our construction
22 activities at the original site -- civil work is
23 done, all the drainage is in, then what we'll do is
24 to go back and we will reseed the areas that will
25 not be disturbed.

1 And I know right now -- you'll see it from
2 the aerial photography, you'll see the area around
3 Pioneer Phase I and II, you can see it's a
4 different brown. We actually are a little bit
5 delayed in our restoration activities. It should
6 have been done last fall, but with the rains we
7 had, it created a little trouble with our
8 contractor, but that area will be reseeded here
9 this spring.

10 Q. Will construction of the new stormwater
11 pond provide any additional complications with
12 regard to noxious weed control?

13 A. It should not.

14 Q. I guess that's enough about the plants.
15 Let's talk about the animals a little bit. The
16 application indicates that this project will have
17 little to no impact on wildlife habitat, but does
18 Basin have any type of plan in place in the event
19 of an unanticipated habitat find discovered in the
20 construction of the project?

21 A. I guess if there was a habitat find --
22 like you're referring to like some nest?

23 Q. A nest or something that was just missed
24 previously in the study.

25 A. The areas right now, whether it's the

1 disturbed -- previously disturbed ground from our
2 lay-down area and preconstruction area for Phase I
3 and II or the previously tilled land, I guess we
4 don't really hold that highly -- what do you want
5 to call it -- priority nesting area for any type of
6 an avian bird, so we don't anticipate any nesting.

7 Q. So to a reasonable degree of certainty,
8 you can say that there will be no habitats that
9 weren't identified in the application found on
10 site --

11 A. That's correct.

12 Q. -- is that correct?

13 A. That's correct.

14 Q. Can you please turn to Appendix G of your
15 application.

16 A. Yes.

17 Q. And within Appendix G, it would be -- I
18 guess the pages aren't numbered, but eight pages
19 into Appendix G there's a telephone memorandum.
20 Let me know when you have an opportunity to find
21 it. It's regarding a phone conversation with the
22 United States Fish and Wildlife Service.

23 A. Okay.

24 Q. It has Burns and McDonnell in the upper
25 right-hand corner, then telephone memorandum in the

1 heading. It's dated September 19th, 2014.

2 A. Yes, I have it.

3 Q. Other than this one memorandum, has Basin
4 received any other correspondence from the United
5 States Fish and Wildlife Service?

6 A. No, we have not.

7 Q. The memorandum indicates that United
8 States Fish and Wildlife Service will not send a
9 formal response unless requested. Did Basin
10 request a formal response from the United States
11 Fish and Wildlife Service?

12 A. We believe that -- no, we have not.

13 Q. Why not?

14 A. This telephone memorandum, we went through
15 this process with Pioneer Phase II. We had that
16 response, the same land use, the surrounding area's
17 land use stayed the same, and we don't believe any
18 wildlife or habitat has changed from the course of
19 a year.

20 Q. Let's move on to the cultural studies.
21 The application indicates that Basin did perform a
22 Class III cultural study for a previous -- I think
23 it was for the siting of Phase I and Phase II -- or
24 probably just for the siting of Phase II because I
25 don't think Phase I was jurisdictional. We can

1 confirm that.

2 A. Phase I was not jurisdictional, but we did
3 the entire cultural survey of the entire area prior
4 to any disturbance to the area out there from the
5 original construction.

6 Q. Now, when you say "the entire area," what
7 do you mean?

8 A. The entire 120-acre parcel that we
9 purchased. We do that so we know if there are some
10 cultural resources there and it helped us in
11 defining our project, but since none was found,
12 basically it cleared the area.

13 Q. Did Basin submit the same information in
14 2014 for approval from the State Historical Society
15 as it did when it received approval in 2012?

16 A. Because the State Historical Society
17 already sent out their findings where they had the
18 report and they accepted it, another follow-up
19 report was not submitted. It is one and the same.
20 The State Historical Society tracks areas surveyed
21 by the parcel, not by what year of request. So in
22 subsequent years if one would go back and do the
23 Class I surveys, that's what the documents would
24 show, that it's been surveyed, none was found.

25 Q. So no new updated material was required

1 for the 2014 approval; is that correct?

2 A. That's correct.

3 Q. And none was requested from Basin; is that
4 also correct?

5 A. That's correct.

6 MR. SCHMIDT: I have no further questions.

7 JUDGE MANN: Mr. Schock.

8 **CROSS-EXAMINATION**

9 **BY MR. SCHOCK:**

10 Q. I want to talk a little bit about the CO2
11 ratings of these units. In the application it
12 seemed to indicate that you don't believe that
13 these units would fall under the new standards law
14 for the EPA, which I believe is around 1100 pounds
15 per megawatt-hour. Can you explain how you made
16 that determination?

17 A. If you're talking about the new EPA rule
18 that they had proposed, proposed new source
19 performance standards for combustion turbines and
20 for coal plants, which is -- I believe it's quad
21 TTTT, those rules were proposed in 2012. They
22 since have been rescinded. I believe they're still
23 developing. But they also had a threshold of 25
24 megawatts per nameplate capacity. As Mr. Rossow
25 testified, these are 9.3 megawatts, so these RICE

1 engines are not underneath the EPA's proposed new
2 source performance standards.

3 Q. I'm not familiar enough with the law, so
4 basically you're looking at each of these
5 individually rather than the entire site?

6 A. That is correct.

7 Q. Do you know if -- so let's say that the
8 EPA wouldn't agree with you and they would say that
9 this is one big unit. Would this meet that
10 threshold?

11 A. Yes, it would on a -- I'll call it
12 emission intensity. As Mr. Rossow testified, these
13 are very efficient machines, so I believe the
14 EPA's were looking around a thousand, 1100 pounds
15 of CO2 per megawatt, and these would be a thousand
16 or less, so we would -- even if it was under
17 jurisdiction, this would be a very low-emitting
18 machine.

19 Q. So a thousand or less, that's actually
20 better. So I think what we heard before is a
21 combustion turbine is around 1100 --

22 A. Correct.

23 Q. -- so these are really good. All the
24 facilities you're proposing to construct, including
25 the generator plants, the pipelines and the

1 transmission line, is all within Basin-owned
2 property; is that correct?

3 A. That is correct.

4 Q. I have a few questions around the sound
5 studies. For Phases I and II I would imagine -- I
6 guess I don't imagine, I found the applications,
7 the sound studies were completed to determine the
8 noise levels at the close receptor sites. If I
9 remember correctly, I think the loudest that it
10 would be at any one receptor site was about 42
11 decibels and, as you said, the EPA guidelines is 55
12 so it's well within that. Do you have anything,
13 since the two units are in place now and operating,
14 what the actual sound levels are at the receptor
15 sites?

16 A. Yes, we do. If you refer back to Appendix
17 C, and Appendix C is actually three different
18 reports so we have to go to the middle, and that's
19 that modeling that we did in the fall of 2014. So
20 it's entitled noise compliance study --

21 Q. Okay.

22 A. -- which is actually an appendix of the
23 first report. Have you found it?

24 Q. No. I'm trying to find the right page
25 here. Have you found the page?

1 A. I can say go to Appendix C and it's
2 Appendix A of a sound assessment study. It's
3 called noise compliance study.

4 Q. Okay. Appendix C. Here's Appendix B.
5 We're just about there. I seem to be missing
6 Appendix C. I have Appendix B.

7 A. It's Appendix C in our application.

8 Q. Yep, yep. Appendix C, sound study.

9 A. About 20 pages back or so.

10 Q. Operational noise assessment study, is
11 that it?

12 A. If you've got the assessment study, I
13 believe you're too far back.

14 COMMISSIONER FEDORCHAK: It's right after
15 7-1.

16 Q. (MR. SCHOCK CONTINUING) 7-1. Okay.

17 A. The noise compliance study, like I said,
18 was a -- Burns and McDonnell went out there in the
19 fall of 2014 to actually take survey meters and
20 went and actually performed noise studies, and what
21 they did is they identified the noise receptors,
22 they put their noise survey meters up on a tripod
23 directionally towards the plant. They took sound
24 as if it was constant sound. They were there five,
25 ten minutes, I more lean towards five minutes, and

1 took the measurements. But they also did it during
2 two operating periods. They did one during the day
3 and they also went back towards the evening. Their
4 findings were that we were -- it was twofold. One
5 was to verify that their predictive modeling that
6 they performed for Phase 2 actually was accurate
7 and then we looked at what the actual emissions
8 were from operations of Pioneer phase -- Units 1,
9 2, and 3.

10 Q. Did they find they were close with their
11 original assessment? Was it higher or lower?

12 A. I believe it was slightly higher, but I
13 think it was .2 decibels.

14 Q. Okay. So we could probably expect a
15 similar type of error ratio with the second. I
16 think there was one receptor site on this Phase III
17 that was getting -- I think we were in the
18 49-decibel range, so maybe at most 50, is that
19 reasonable?

20 A. My understanding, if we go back to the
21 data, is that 49 decibels, that was up at the
22 church, which is not the local occupied residence.
23 So the church is approximately three-quarters of a
24 mile away, the nearest occupied residence
25 approximately a mile and a half, so you'll see a

1 big dropoff of the decibel readings at that
2 residence.

3 Q. Have you had any noise complaints from any
4 nearby neighbors?

5 A. No, we have not. And I know Mr. Rossow
6 testified with the emergency plan we have, you
7 know, the emergency responders that come on plant
8 site and visit, I know when we had the members of
9 the township board out there in January, we gave
10 them a nice tour, the plant was operating and you
11 can see what an operating facility was and what the
12 noise impact is. Certainly Phase III is going to
13 be somewhat different noise emitters than what
14 exists there today, but the total sound -- noise
15 levels that are going to be seen are very close to
16 what's there now.

17 MR. SCHOCK: I have no other questions.
18 Thank you.

19 JUDGE MANN: We're going to take another
20 short break before we continue with the
21 commissioners' questions, so if we can come back in
22 about ten minutes or so.

23 (Recess taken at 12:05 p.m. to 12:16 p.m.)

24 JUDGE MANN: We are back on the record.
25 Mr. Miller, you remain under oath. Mr. Schock had

1 just completed his questioning, so, Commissioner
2 Kalk, you can go ahead.

3 COMMISSIONER KALK: Thank you, Your Honor.

4 **EXAMINATION**

5 **BY COMMISSIONER KALK:**

6 Q. Thank you, Cris, for your testimony. For
7 those that don't know, Cris and I grew up together
8 back in the day back in Bottineau, so I always ask
9 you the hardest questions, right, Cris?

10 I appreciate your discussion about hearing
11 the insects because I'm thinking back to what it
12 was like at Lake Metigoshe late at night.

13 Cris, actually I think our counsel did a
14 very good job of questions. I only had a couple.
15 Tell me again about the federal nexus, because I
16 thought Basin, because of RUS dollars, there was
17 always a federal nexus. I'm fine there's not. I'm
18 just curious of what's the trigger.

19 A. Typically with a project in -- serving in
20 our service territory, as Miss Kern explained about
21 Western Area Power, if we would interconnect with a
22 Western Area Power facility, so that's a
23 transmission interconnect, which would be a federal
24 nexus.

25 Q. Okay.

1 A. If we would have to have another federal-
2 issued permit, if we cross some other federal land.
3 As far as RUS goes, Basin Electric has two options.
4 We can apply for a loan from the Rural Utility
5 Service, and if we were doing that, then we would
6 have to follow their NEPA rules. In this case
7 Basin Electric made the decision to go to private
8 funding, our public funding, not through RUS, so
9 there will be no loan application so there's no
10 federal nexus with RUS.

11 Q. Okay. So if you do get RUS dollars, that
12 creates the federal nexus no matter what?

13 A. That's correct.

14 Q. Okay. Thank you, sir. And the last
15 question I had was, walk me through again the air
16 quality permits as far as just the process. I'm
17 thinking that -- is there one permit issued for
18 this whole plant, or do you have several permits
19 that will be issued?

20 A. The --

21 Q. I mean, Phase I, II and III, if that will
22 be one permit or if it will be multiple permits.

23 A. Right now we have an existing permit, and
24 what they'll do, they'll roll -- they're
25 considering and evaluating Phase III as a separate

1 permit application, but at the end of the day
2 they'll issue -- they'll combine that into a -- I
3 shouldn't say that. There will be a -- it will be
4 a separate permit on the permit to construct, but
5 as a Title 5 operating permit, they will combine
6 the two processes, so for a permit to construct
7 separate. Once you get the operating permit, then
8 they'll combine the Title 5 permit.

9 Q. Okay. Outside of this hearing, just a
10 knowledge question for me, who is the guru at Basin
11 that as we steward forward on these 111(d) rules --
12 is that going to be you, Cris, who we will be
13 talking to on what your recommendation is?

14 A. No, it won't be me, but I know there's a
15 whole host of people that are engaged with Basin
16 Electric on the 111(d). It affects so much of our
17 industry, so there's a good solid team working on
18 the 111(d) program as we speak.

19 COMMISSIONER KALK: Thank you. I have no
20 further questions.

21 JUDGE MANN: Commissioner Fedorchak.

22 **EXAMINATION**

23 **BY COMMISSIONER FEDORCHAK:**

24 Q. Cris, I'm trying to just clarify the
25 actual size of the site. I know you talked a lot

1 with Brian about this. But do you currently have a
2 permit for the entire -- a siting permit for the
3 entire 120-acre parcel?

4 A. From what entity? From --

5 Q. Did you receive that -- did we include in
6 the siting certificate for the Pioneer Generation
7 Station Phase I and II that entire 120-acre parcel?

8 A. From the Public Service Commission, no,
9 you did not. We combined it to the fence line, so
10 it's like seven acres, which is an existing fence
11 of Pioneer I and II.

12 Q. And so are you in this certificate
13 seeking -- in this application seeking a permit for
14 the entire 120-acre?

15 A. That's what we have proposed, that's
16 correct.

17 Q. Okay. So then if you expand and added
18 another facility, say Phase IV, what's your
19 understanding of the permitting process required?

20 A. If it exceeds the 50-megawatt threshold
21 for jurisdictional for the Public Service
22 Commission, we would be back in front of this body.

23 Q. And if it was less than that?

24 A. It may not be, but we also know that
25 you're free to put any type of additional

1 conditions on your findings of fact --

2 Q. Okay.

3 A. -- as well.

4 Q. And then we've had some discrepancy with
5 this in the last six months or so, working with
6 various companies on they sign -- we typically, and
7 you already have, signed the certification document
8 that's attached to our orders typically, and in
9 that there's a couple points where you say the
10 company agrees that it shall advise the Commission
11 of any extraordinary events that take place at the
12 site. That's mostly related to accidents. Then
13 also shall inform the Commission in writing any
14 plans to modify the facility or of any plans to
15 modify the site and you'll obtain written approval
16 from the Commission prior to any modifications to
17 the site plan or the energy conversion facility,
18 et cetera, et cetera. Approval may be granted
19 after notice and opportunity for hearing. So we
20 still -- even though there is the whole -- what's
21 that term -- the footprint law where you can build
22 within a previously approved site, there is that
23 contingency in our certification document that does
24 require you to come back for permitting during
25 which we could just do it, you know, sort of a

1 modified permitting process. Are you comfortable
2 with that?

3 A. Yes.

4 COMMISSIONER FEDORCHAK: Okay. All right.
5 I just wanted to clarify that on the record. Thank
6 you. I don't have any other questions.

7 JUDGE MANN: Commissioner Christmann?

8 **EXAMINATION**

9 **BY COMMISSIONER CHRISTMANN:**

10 Q. Well, one of mine just disappeared, Your
11 Honor, so the only other line of questioning that I
12 would have is, regarding stormwater you made it
13 sound pretty simple, I guess, because there's not
14 oil or anything like that involved here, but what
15 about if you add the liquid petroleum storage, what
16 happens if there's a breach of that?

17 A. Liquid -- the LNG, I believe the design
18 criteria would be that it would be a -- it's a
19 pressurized vessel, steel, but there would be a
20 perimeter berm around that tank. As Mr. Rossow
21 said, it's heavier than air, but it will also
22 evaporate pressure too, so there might be -- so
23 we'll have a containment around that, but whether
24 it actually would be there by the time we had any
25 type of remedial action is another story. So

1 that's part of that design criteria we have where
2 there is low risk or no real exposure to having
3 contaminants in the stormwater.

4 Q. But there would be some kind of a bunker
5 built around that?

6 A. Correct. Correct.

7 COMMISSIONER CHRISTMANN: Okay. I have no
8 other questions.

9 JUDGE MANN: Miss Jacobson?

10 MS. JACOBSON: Nothing, Your Honor.

11 JUDGE MANN: Mr. Schmidt?

12 MR. SCHMIDT: Nothing further, Your Honor.

13 JUDGE MANN: Mr. Schock? Commissioner
14 Kalk, anything else?

15 COMMISSIONER KALK: Nothing.

16 JUDGE MANN: Commissioner Fedorchak?

17 COMMISSIONER FEDORCHAK: No.

18 JUDGE MANN: Commissioner Christmann?
19 Okay. Thank you. You can step down.

20 THE WITNESS: Thank you.

21 JUDGE MANN: Miss Jacobson, do you have
22 another witness?

23 MS. JACOBSON: There are no additional
24 witnesses, but we would be happy to recall
25 Mr. Rossow to talk about the gas supply if you

1 desire now.

2 JUDGE MANN: Okay. I think there was a
3 question for him. You can recall him at this
4 point.

5 And you remain under oath.

6 Miss Jacobson, did you have any initial
7 questions for the witness?

8 MS. JACOBSON: No. That's okay if you
9 just want to --

10 JUDGE MANN: Okay. Mr. Schmidt?

11 MR. SCHMIDT: I have no questions for this
12 witness.

13 JUDGE MANN: Mr. Schock?

14 MR. SCHOCK: No questions.

15 JUDGE MANN: Commissioner Kalk?

16 COMMISSIONER KALK: Just briefly.

17 **JOSH ROSSOW,**

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

20 **FURTHER EXAMINATION**

21 **BY COMMISSIONER KALK:**

22 Q. What kind of contracts have you secured
23 for this facility? And if it's trade secret, then
24 just tell us because that's fair.

25 A. I think the point I'd like to make is that

1 there are two separate aspects to gas supply.
2 There's the transport of the gas and then there's
3 also the purchase of the gas itself. And because
4 we are basically held hostage by a gas pipeline --
5 one gas pipeline, we do secure a very long-term
6 contract like 20 or 30 years.

7 In the case of purchasing the gas, that's
8 a very dynamic situation where we're looking at it
9 on a daily basis nominating gas and many different
10 counterparties, and because we are a producer of
11 gas through the Dakota Gasification Great Plains
12 Synfuels, we're also -- there are synergies there
13 as well.

14 Q. But in general terms, I mean, do you have
15 a contract for gas in this facility with ONEOK for
16 one year or five years or ten years?

17 A. We do not have a contract with ONEOK. We
18 have a contract with WBI to transport the gas for
19 us, but typically we go through a gas marketing
20 firm to match us up with a counterparty to purchase
21 that gas, so we don't necessarily have to purchase
22 from ONEOK.

23 Q. Well, how do you -- what I'm trying to get
24 to, I guess, how do you figure -- I know Miss Kern
25 talked about what she figured for \$5 gas equals X

1 amount of price per kilowatt, which was a good
2 price, but you must use some planning figure, and
3 how do you base that planning figure? There must
4 be some security or solid -- what's the word I'm
5 looking for here? There must be some --

6 COMMISSIONER FEDORCHAK: Certainty.

7 Q. (COMMISSIONER KALK CONTINUING) --
8 certainty -- there you go -- thank you,
9 Commissioner -- some certainty that this is a good
10 idea. I mean, how do you take \$10 gas off the
11 table maybe is a better question.

12 A. Basin Electric does engage in hedging and
13 things like that, but we can't do that long term
14 like ten years out. I'm not involved in the
15 details of that hedging so I can't speak to what is
16 involved. But there are industry forecasts on what
17 gas price is going to be, and so forth. It's
18 really the risk you run when you build natural gas.

19 Q. Okay. So basically you'll take the
20 experts that -- and the industry will give you a
21 price and you'll say that's probably going to be
22 accurate and so you'll hedge that's going to hold
23 and then make your investment?

24 A. I'm not aware of how that decision is
25 made.

1 companies aren't able to secure long-term
2 contracts -- not for the pipeline but for the gas,
3 so you do just what Commissioner Kalk is saying,
4 establish some sort of certain price for the
5 generation long term. There's a lot of -- a lot of
6 companies banking on predictions for gas price and
7 replacing, you know, coal facilities with gas-fired
8 facilities and there's no certainty other than what
9 the experts think the price future is. That's --
10 that is very uncertain.

11 I did, however, have three people come up
12 to me at the last NARUC meeting after similar
13 comments saying, you give this card to your
14 companies, we'll do a long-term price -- we'll do a
15 long-term commitment with them, 15, 20 years. So I
16 throw that out there. I have some cards in my hand
17 right now that these companies said they would be
18 happy to talk about long-term gas prices. So I
19 would love to take them up on that.

20 A. All right. Thank you. We would be happy
21 to look at it.

22 JUDGE MANN: Commissioner Christmann?

23 COMMISSIONER CHRISTMANN: No other
24 questions.

25 JUDGE MANN: Okay. Anything further, Miss

1 Jacobson?

2 MS. JACOBSON: No, Your Honor.

3 JUDGE MANN: Okay. You may be excused.

4 Thank you.

5 Anything else from Basin Electric?

6 MS. JACOBSON: Nothing further, Your

7 Honor.

8 JUDGE MANN: Okay. Thank you.

9 Any members of the public wish to testify,
10 they can do so at this point.

11 Do you have another copy? If you want it
12 entered into the record, I have to have it marked
13 as an exhibit.

14 MR. VIGESAA: Sorry about that.

15 JUDGE MANN: That's okay. And can I get
16 your name, sir?

17 MR. VIGESAA: Claire, C-l-a-i-r-e,
18 Vigesaa, V-i-g-e-s-a-a.

19 JUDGE MANN: And, Mr. Vigesaa, before you
20 testify, give your testimony, I need to give you
21 the same oath that I gave the other witnesses and I
22 need to advise you of the penalty for perjury in
23 North Dakota. It's a Class C felony, punishable by
24 a maximum fine of \$10,000, maximum five years
25 imprisonment, or both.

1 (Witness sworn.)

2 JUDGE MANN: And then just once you're
3 completed with your testimony, if you can just
4 remain up there and we'll give everybody -- the
5 attorneys and the commissioners an opportunity to
6 ask any questions they might have.

7 MR. VIGESAA: Certainly.

8 JUDGE MANN: Then just with respect to the
9 two documents, I'll just ask counsel if they have
10 any objections to having these documents admitted
11 into the record? Miss Jacobson, any objection?

12 MS. JACOBSON: No, Your Honor.

13 JUDGE MANN: Mr. Schmidt?

14 MR. SCHMIDT: I guess, can we have a
15 chance to review them before making a decision on
16 that?

17 JUDGE MANN: Sure. Go ahead.

18 MR. SCHMIDT: I don't have a copy of it.

19 THE WITNESS: Here. I have lots of copies
20 actually.

21 JUDGE MANN: And, Mr. Vigesaa, I'm
22 assuming that you will identify these documents as
23 part of your testimony, what they are, and so
24 forth.

25 MR. VIGESAA: Sure.

1 JUDGE MANN: So go ahead.

2 **CLAIRE VIGESAA,**

3 being first duly sworn, was examined and testified
4 as follows:

5 MR. VIGESAA: I'm Claire Vigesaa. I'm
6 general manager of Upper Missouri Power Cooperative
7 headquartered in Sidney, Montana. 95 -- or about
8 92 percent of our sales, however, are in North
9 Dakota. We provide transmission services to five
10 electric -- or electric cooperatives in North
11 Dakota and five in Montana, but, like I mentioned,
12 the bulk of our sales are -- 92 percent of them are
13 in North Dakota.

14 And I just wanted to relay our support for
15 this project, Basin's Pioneer Station Phase III
16 project. Upper Missouri in 2014 had a peak of 987
17 megawatts, so for those of you familiar with
18 Antelope Valley, our load share of the Basin
19 system, we take more than the capacity of Antelope
20 Valley 1 and 2. And we sold nearly 6,000 gigawatt-
21 hours of energy in 2014, and that's a 27 percent
22 growth over 2013.

23 So we're a big part of Basin. We're about
24 25 percent of Basin's sales, growing to about 31
25 percent of Basin's sales, so we're very interested

1 in whether or not Basin is building generation to
2 serve our members.

3 So the message is we're still catching up.
4 There's still growth in the Bakken and there's new
5 pipeline load and then continued gas plant
6 expansions to take care of additional flaring. So
7 there is needed -- the generation is very much
8 needed.

9 So the second page there is similar. This
10 is specific to the Upper Missouri region. You
11 heard from Miss Kern from Basin as a whole Upper
12 Missouri's forecasts there. The red line is what
13 the forecast for load was in 2014 and the blue line
14 was the original forecast for 2015 -- the update in
15 2015. And then the dotted line was, like Miss Kern
16 mentioned, taking away half of the drilling rigs
17 and eliminating the TransCanada project. Even with
18 that in the forecast, you can still see that the
19 Upper Missouri family is expected to grow over 1200
20 megawatts in the next 20 years.

21 So there's no doubt in our mind that we
22 need additional generation and appreciate Basin's
23 efforts to meet our needs. That's all I have.

24 JUDGE MANN: Okay. And just before
25 questions, with respect to the exhibits, I'll mark

1 the letter of support as Upper Missouri Exhibit No.
2 1 and the load forecast chart as Upper Missouri
3 Exhibit No. 2. And, Miss Jacobson, did you have
4 objection to either of those exhibits being
5 admitted?

6 MS. JACOBSON: No, Your Honor.

7 JUDGE MANN: Mr. Schmidt, any objection?

8 MR. SCHMIDT: No, Your Honor.

9 JUDGE MANN: Okay. I will admit both
10 those exhibits.

11 And, Miss Jacobson, did you have any
12 questions?

13 MS. JACOBSON: Nothing, Your Honor.

14 JUDGE MANN: Mr. Schmidt?

15 MR. SCHMIDT: I have no questions, Your
16 Honor.

17 JUDGE MANN: Mr. Schock?

18 MR. SCHOCK: No questions.

19 JUDGE MANN: Commissioner Kalk?

20 COMMISSIONER KALK: Thank you, Your Honor.

21 **EXAMINATION**

22 **BY COMMISSIONER KALK:**

23 Q. Thank you, Claire, for coming up here
24 today and giving us your testimony.

25 What's the relationship of Upper Missouri

1 going to be once Basin joins Southwest Power Pool?
2 How do you tie in to that -- I won't use the word
3 mess, but --

4 A. Sure. We -- Upper Missouri owns assets
5 that are qualifying for SPP as do our members,
6 including Dale, who's, I think, still in the back
7 here, Mountrail-Williams, and so we have actually
8 petitioned to include our assets -- qualifying
9 assets into SPP, and our plan is to lease our
10 assets -- qualifying assets in Mountrail-Williams
11 for Divide, Sheridan into -- lease them to Basin
12 and then they'll be entering into SPP January 1st
13 of 2016. So the infrastructure up in this part of
14 Upper Missouri's territory is -- will be in
15 petition to enter into SPP as well.

16 Q. Sure. Then the last question is, in your
17 letter you said roughly 1200 megawatts more in the
18 next few years. Are you comfortable that building
19 9-megawatt peakers at a time is what you really
20 need?

21 A. I think it's a great idea just for
22 incrementally adding, you know, load rather than
23 one big plant at this time. You know, I know Basin
24 has thoughts of bigger plants in the future, but at
25 this time to be able to incrementally bring on 9

1 megawatts at a time is helpful for operating the
2 system in this area.

3 COMMISSIONER KALK: Okay. Thank you.

4 JUDGE MANN: Commissioner Fedorchak.

5 **EXAMINATION**

6 **BY COMMISSIONER FEDORCHAK:**

7 Q. Thank you, Claire. Good to see you again.
8 Thank you for being here.

9 Just to follow up on that a little bit, so
10 when the plans were being developed for this
11 project, the downturn in the oil price hadn't
12 occurred yet, but does this particular approach
13 seem all the more brilliant now with that
14 additional volatility knowing like we may or may
15 not know when it's going to come around again and
16 this is just a little bit of a hedge on that too?

17 A. I think, yes.

18 Q. And is it --

19 A. Are short answers allowed?

20 Q. Yes, but I prefer long answers because you
21 might say something I hadn't thought of.

22 A. Sure.

23 Q. Are you comfortable with the plans --
24 looking at this -- even the revised forecast, are
25 you comfortable with the plans to meet that demand?

1 school coal, you've got the mine and you know the
2 cost, is hard to give up.

3 COMMISSIONER CHRISTMANN: No other
4 questions. Thank you.

5 JUDGE MANN: Thank you, Mr. Vigesaa. You
6 may step down.

7 Could I get your name?

8 MR. HAUGEN: Dale Haugen, H-a-u-g-e-n.

9 JUDGE MANN: And, Mr. Haugen, I need to
10 give you the oath, advise you of the penalty for
11 perjury in North Dakota. Class C felony,
12 punishable by a maximum fine of \$10,000, maximum
13 five years imprisonment, or both.

14 (Witness sworn.)

15 JUDGE MANN: Go ahead.

16 **DALE HAUGEN,**

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

19 MR. HAUGEN: My name is Dale Haugen. I'm
20 the general manager of Mountrail-Williams Electric
21 Cooperative here in Williston, which we refer to as
22 boots on the ground. I'm the local guy. I'm also
23 a member of Claire's Upper Missouri Power
24 Cooperative, one of the ten that resides here in
25 North Dakota.

1 And I'm here to support Basin Electric in
2 their venture and, I guess, without getting into
3 any -- too many details and allow the commissioners
4 to ask questions, is my attire.

5 In 2013 we had our 200-megawatt coat, of
6 which Mountrail-Williams reached a milestone. In
7 December I thought it was inappropriate, but we
8 bought 300 hoodies with 300 megawatts on. And
9 since just December, Upper Missouri's power bill
10 for January -- billed me for 356 megawatts of power
11 for just Mountrail and Williams County. And it
12 looks like our target date as 400 megawatts is
13 around the corner as we bring on additional gas
14 capture, the Whiting Ray Gas Plant, the Enbridge
15 Sandpiper Pipeline, and some of the new facilities
16 coming on, it won't be long before 400 megawatts is
17 in reach.

18 So with that, I'll take questions.

19 JUDGE MANN: Thank you. Miss Jacobson?

20 MS. JACOBSON: No, Your Honor.

21 JUDGE MANN: Mr. Schmidt?

22 MR. SCHMIDT: I have no questions, Your
23 Honor.

24 JUDGE MANN: Mr. Schock?

25 MR. SCHOCK: No questions.

1 JUDGE MANN: Commissioner Kalk?

2 COMMISSIONER KALK: Thank you, Your Honor.

3 **EXAMINATION**

4 **BY COMMISSIONER KALK:**

5 Q. Have you thought about anything like 400-
6 megawatt golf balls or something like that?

7 A. I tell you, we're very particular about
8 our team. We just don't give the coats out. They
9 have to be part of the 300-megawatt team, part of
10 the 400-megawatt team, and golf balls don't play
11 into that.

12 Q. Gotcha. A serious question, Dale. So how
13 is it going to work in your mind when SPP is here
14 and MISO is here about all those relationships that
15 you've had with MDU over the years on sharing power
16 and services? How is that playing out right now?

17 A. The world just got complicated.

18 Q. How are you negotiating with MDU on that?

19 A. Basically it's like you've heard further
20 testimony -- or previous testimony is the MISO
21 area, the SPP area, and for me being in the program
22 for 34 years learning a new model. You know, it's
23 no longer mine mouth to meter. There's an
24 intercompany in between called SPP, learning that
25 an MOD is no longer a motor-operated disconnect.

1 It's model on demand. How do you get the
2 transmission data and everything to the appropriate
3 entities and how the system is running. It's a new
4 curve for me and it's complicated and kind of still
5 going through the weeds and learning the ropes.

6 Q. So the traditional pricing models that you
7 may have been able to work out with buying power
8 from MDU, the costs are probably going to go up?

9 A. Okay. Commissioner Kalk, remember, I got
10 an all power requirements contract with Upper
11 Missouri and Basin, so negotiating with -- it would
12 be more the interconnection common use agreements.

13 As Claire testified, the transmission
14 facilities that are going to be leased will be a
15 tariff-type lease, a different type of a cost
16 recovery. I'm no longer a TOP more than now I am
17 just a TO. I will be a transmission owner,
18 responsible for maintenance, vegetation management
19 and everything else. We pretty well leased our
20 rights of being a transmission operator to SPP.

21 COMMISSIONER KALK: Okay. Thank you.

22 JUDGE MANN: Commissioner Fedorchak.

23 **EXAMINATION**

24 **BY COMMISSIONER FEDORCHAK:**

25 Q. Dale, thanks for coming. Could you give

1 us an update on how you are keeping up? In some of
2 our previous hearings you've come and you've sort
3 of given us a status report about how far behind
4 you are for hooking up, you know, various new
5 customers, and if you could just give us a status
6 report on that, if you've made some -- made some
7 time up now with a little bit of a slowdown here.

8 A. Commissioner Fedorchak, I would believe we
9 are making some headway. I looked this morning,
10 we're a little bit -- 200-plus requests away from
11 getting totally caught up. But like they said, the
12 perimeter drilling has more condensed into the
13 heart. We've actually seen an increase in
14 drilling, an increase in the multi-well pads,
15 everything else, which has been tough on the design
16 criteria because who would have ever guessed what
17 used to have one or two wells has now got an
18 Atlanta pad from Continental, 14 wells on one site,
19 everything else. I mean, are we to a point now
20 that everything that we designed four, five, six
21 years ago has to be relooked at, reconducted,
22 rebuilt, so the acceleration is still there.

23 My biggest concern is still landowner
24 fatigue. Tough, tough to get easements. Tough
25 relationships, four, five, six visits per each

1 landowner to talk about their concerns. So
2 landowner fatigue is still the biggest issue.

3 Q. A couple followups to that on the large
4 well pads. Are they more efficient in terms of the
5 energy they use, or do they just require 14 times?

6 A. We're seeing a lot of technology change,
7 variable frequency drive, sharing some of the
8 region between the wells, one on the downstroke,
9 one on the upstroke. Personally I haven't done
10 enough analysis to answer that intelligently.

11 Q. So when you say you have to reconstruct,
12 are you talking about pulling up the old
13 transmission and getting new higher-voltage lines
14 in, that type of thing?

15 A. When an oil company requests, typically
16 for a single well pad, they would say, I'm going to
17 use a 60-horsepower motor, a 125-horsepower motor,
18 we would size it appropriately and use the normal
19 rule of thumb, you know, is this going to be a
20 distribution line, a main trunk line, what does the
21 future look like. And the future has changed in
22 them two or three years, which is now, you know, 15
23 times 125-horsepower motor. I mean, that's a full
24 city subdivision, the usage of these. So, yes, it
25 has definitely changed the way we look at things

1 and being cautious on stranded cost.

2 Q. So do you have any sense for how long the
3 wells are waiting to get hooked up and using
4 their -- sort of their auxiliary or temporary
5 power?

6 A. We sat down with a group of lease
7 generator owners, and they kind of wanted to know
8 the same question, and I said even if some of the
9 predictions of North Dakota are correct and we're
10 going to get 9,000 wells, just because of the
11 landowner fatigue and everything else and the risk
12 of getting there, I told them is it 10 percent the
13 utilities aren't going to get to, is it 5 percent,
14 is it 3 percent. I told them there's no way that
15 we'll get to every well, so there will always be
16 some generation out there.

17 Q. Do you sense from the landowner fatigue
18 that they're treating you differently than they may
19 like a pipeline, or are you all in the same kind of
20 category, they don't want anybody?

21 A. We used to be the local co-op on the
22 block, and some are feeling we're no different than
23 big oil anymore. The difference between me and the
24 pipeline companies and big oil, we're the last one
25 on the block.

1 By saying that, I mean the oil well is
2 there, they've forced their hand that they're able
3 to put a pipeline in, everything else. The last
4 thing that comes to the oil well pad is
5 electricity. So we're the last one to visit the
6 landowners, so if the land hasn't been reclaimed
7 correctly, everything else, they hold Mountrail-
8 Williams typically hostage for us to be the
9 mediator to bring the oil company and the landowner
10 together and try to resolve it.

11 Most of them are resolved. Once in a
12 while we'll get that 20-day demand letter that says
13 we have the right to produce that well. I will go
14 and visit with that particular landowner on a
15 case-by-case basis and say, Would you rather have
16 your local electric co-op own that power line, or
17 do you want your oil company to own that power
18 line? If there's something wrong with it, anything
19 else, you're able to come and visit with me eye to
20 eye, you're able to look at me or even to get to my
21 board of directors. Good luck in going to
22 Oklahoma, Houston and resolving your problem.

23 So far to date we have not had one case
24 where we could not have resolved the issues, but it
25 takes a lot of effort.

1 Q. So help me understand, how would the oil
2 company bring themselves electricity?

3 A. A member is a member. We have
4 agricultural members, we have oil company members,
5 we have pipeline members, and if a member requests
6 electricity, the determination is the point of
7 meet. If I can't get right of access or an
8 easement to go across, they may exercise their
9 lease options and take power from the well site a
10 half-mile or a mile, whatever it takes to meet
11 Mountrail-Williams, and at that point would be the
12 interconnect.

13 COMMISSIONER FEDORCHAK: I think that's
14 all for me. Thank you.

15 THE WITNESS: Thank you, Commissioner.

16 JUDGE MANN: Commissioner Christmann?

17 **EXAMINATION**

18 **BY COMMISSIONER CHRISTMANN:**

19 Q. Are you still a winter-peaking company or
20 summer, or is your peak always just the most recent
21 month?

22 A. You've got it. Every month is a new date,
23 like 50 first dates.

24 Q. Well, we're not going there. Tell me
25 about close calls insofar as not being able to get

1 enough energy.

2 A. Basin Electric manager meetings are always
3 interesting, and especially every other Monday at
4 eleven o'clock we have a western North Dakota
5 call-in and we talk about the load pocket that
6 you've heard in testimony today, where are we at,
7 where's the transmission line at, do we have to do
8 maintenance, what line is going down, what's not, a
9 very, very coordinated effort with Western Area
10 Power and Basin Electric and the individual co-ops.
11 Timing is when each individual line can be taken
12 out, load studies, load studies, operational
13 guides, emergency op guides. We really look at it
14 every other week, hands on.

15 Q. You've not had to do curtailments, though?

16 A. We haven't had to do curtailments. We do
17 do some relay settings for undervoltage tripping
18 for emergency, we're looking at underfrequency
19 tripping now, which is just a standard operating
20 procedure of SPP, but at this time no curtailments.

21 COMMISSIONER CHRISTMANN: No other
22 questions, but thank you for being here, Dale.

23 THE WITNESS: Thank you, Commissioner.

24 JUDGE MANN: Thank you, Mr. Haugen. You
25 can step down.

1 Any others? Your name, sir?

2 MR. MILLER: Rodney Miller.

3 JUDGE MANN: Okay. And, Mr. Miller, as
4 I'm sure you're aware, I need to give you the oath,
5 to advise you of the penalty for perjury in North
6 Dakota. It's a Class C felony, punishable by a
7 maximum fine of \$10,000, maximum five years
8 imprisonment, or both.

9 (Witness sworn.)

10 JUDGE MANN: Okay. Go ahead.

11 **RODNEY MILLER,**

12 being first duly sworn, was examined and testified
13 as follows:

14 MR. RODNEY MILLER: My name is Rodney
15 Miller. My address is 328 East 20th Street in
16 Williston. I am an area landowner out there by the
17 facility. I do support the facility. I think it
18 needs to be put in. Progress. It's progress.

19 My main concern today is the water runoff
20 from the facility. When you take land out of
21 agriculture and put it into industrial or
22 commercial, the soil doesn't absorb like it
23 normally does and you may end up changing the way
24 the water has naturally left that area. And I
25 realize it is going to the west on this facility,

1 and some could get to mine from the old existing
2 area.

3 I guess my biggest question is they say
4 they are going to test the water. How do they test
5 the water when it leaves the facility? A visual
6 test would be to look for a sheen on the water, but
7 I'm concerned, does a herbicide or a sterilant
8 leave a sheen on the water? So are they doing any
9 other tests but a visual test? That's my main
10 concern.

11 JUDGE MANN: Okay. Thank you. Miss
12 Jacobson, any questions?

13 MS. JACOBSON: No questions, Your Honor.

14 JUDGE MANN: Mr. Schmidt?

15 MR. SCHMIDT: I have no questions, Your
16 Honor.

17 JUDGE MANN: Mr. Schock?

18 MR. SCHOCK: No questions.

19 JUDGE MANN: Commissioner Kalk?

20 COMMISSIONER KALK: Thank you, Your Honor.

21 **EXAMINATION**

22 **BY COMMISSIONER KALK:**

23 Q. Thank you, Rodney, for waiting today for a
24 chance to say your piece. I'm just curious. Are
25 you related to Floyd Miller?

1 A. Yes. That is my brother.

2 Q. Okay. So I know I've been to Floyd's
3 place before and I walked out there on his
4 property, which is -- well, you know where his
5 place is at, but northeast of the outlet on there
6 on the Stateline project. Where is your property
7 on that map that I'm looking at here, Pioneer
8 Generation Station, photo taken September 23rd?

9 A. My property is adjacent to the ONEOK
10 plant.

11 Q. Straight east of there?

12 A. No. To the northeast. I own the
13 Northeast Quarter in 21.

14 Q. So that was your property I was walking
15 around with Floyd that day?

16 A. Yes.

17 Q. Did he tell you we were out there?

18 A. This was a year ago or so?

19 Q. Yeah.

20 A. Yeah.

21 Q. That's good. I don't want to break the
22 law.

23 A. And then technically Floyd and I own the
24 farm together. It is our farm.

25 Q. Okay.

1 A. Floyd calls it his, but --

2 Q. I'll talk to him about that next time I
3 see him.

4 A. Okay.

5 Q. But seriously, I know this water issue has
6 been a concern with the ONEOK plant.

7 A. Mm-hmm.

8 Q. And I believe I understand your concern in
9 this one is that there's still going to be
10 continued discharge out of Phase I and Phase II's
11 plant, so you're concerned about that, and then
12 also Phase III, where that may go to?

13 A. Well, Phase III, yeah, they stated that
14 will go to the west, so that will not affect mine
15 at all. Only if it drains to the east and it is
16 able to get over to where their original drain is
17 now, and if it goes through my brother's property
18 and then gets to me.

19 Q. But that channel from Phase I to Phase II
20 that flows from west to east, is there still
21 unresolved issues in that channel, the drainage --
22 natural drainage once it comes out of the Phase I
23 and Phase II plant?

24 A. Just in the ditch there that I see that --
25 of the county road where they said cattails were

1 growing earlier.

2 Q. What about your confidence with the
3 Williams County Water Board? That was one of the
4 things that they weren't heavily engaged in the
5 ONEOK plant, but it appears that Basin has done a
6 good job talking to them now. Have you expressed
7 your concerns to the Williams County Water Board
8 and the confidence with what they're doing here?

9 A. No, I haven't at the moment, but, yeah,
10 they weren't very involved with the ONEOK one at
11 all, and I am happy that the Pioneer Generating
12 Plant is talking with the water board, so -- to get
13 them involved with these concerns.

14 Q. Because we'll probably get someone back up
15 here from Basin, but my understanding with the
16 water board is they have a whole list of criteria
17 before they can discharge and things they have to
18 test from, so if the water board is asking the
19 right questions, would you be comfortable if the
20 water board issues the permit? I mean, how much
21 comfort do you have with the water board and what
22 their result will be in this?

23 A. I guess I'm unfamiliar with their -- what
24 they can do. Do they have to issue a permit for
25 the release of the water?

1 Q. Typically that's the way it goes, but
2 every one is a little bit different. From the way
3 I understand, your biggest concern is to make sure
4 that the herbicides and everything that might be
5 tested for before there's a discharge so it
6 obviously could affect the cropland?

7 A. Mm-hmm.

8 COMMISSIONER KALK: We'll follow up with
9 the company. Thank you, sir.

10 JUDGE MANN: Commissioner Fedorchak.

11 COMMISSIONER FEDORCHAK: Thank you,
12 Rodney, for coming. I don't have any additional
13 questions, but I do appreciate you sticking around
14 and saying your piece.

15 JUDGE MANN: Commissioner Christmann.

16 COMMISSIONER CHRISTMANN: Kind of the same
17 thing. I appreciate you mentioning that on the
18 sterilants and herbicides. We'll make sure and
19 follow up on that. Thank you. Good point.

20 JUDGE MANN: Thank you, Mr. Miller. You
21 can step down.

22 THE WITNESS: Thank you.

23 JUDGE MANN: Miss Jacobson, did you want
24 to recall a witness at this time to address any
25 questions?

1 MS. JACOBSON: Yes. Mr. Miller, please.

2 JUDGE MANN: Again, Mr. Miller, you're
3 still under oath. And, Miss Jacobson, do you have
4 any initial questions?

5 MS. JACOBSON: Sure. I can start it out.

6 **CRIS MILLER,**
7 having been previously duly sworn, was examined and
8 testified as follows:

9 **REDIRECT EXAMINATION**

10 **BY MS. JACOBSON:**

11 Q. Mr. Miller, can you describe your ongoing
12 discussions with the water board and what
13 requirements they have as far as a permit?

14 A. Yeah. The Williams County conditional use
15 permit process actually brought the water board in
16 to their process, so that's why when we went
17 through this conditional use permit acquisition two
18 years ago, the water board wasn't perhaps part of
19 the conversation. Williams County has brought them
20 in to all their conditional use permits.

21 In looking at the water board's, I'll call
22 it oversight, it's basically a direction of flow
23 and that if you have stormwater ponds and you
24 increase this runoff, do you actually even have an
25 easement to back up water onto -- from your holding

1 pond, and then actually the rate of release and
2 your design of the pond so that you're not
3 incurring any type of a damage to adjoining
4 neighbors and property owners.

5 Q. So earlier this morning you talked about
6 plans that Basin Electric has for this spring. Can
7 you talk more about that and state specifically
8 what these plans are?

9 A. Sure. What is at issue is we believe
10 the -- there's a knife gate on the outlet valve of
11 the existing pond for Pioneer I and II. The most
12 likely scenario is that knife gate would have a
13 rubber gasket seal behind it. We believe that's
14 leaking by. So if you go out there in the
15 wintertime, you can see the ice lens -- lensing
16 with the outflow of the pipe, so that's why -- it's
17 a slow leak, it's a minor leak, but when it's below
18 zero, you'll accumulate ice.

19 So once that ice is -- we have the thaw --
20 and spring will come, we hope -- we will go out
21 there and investigate that knife gate, we'll see
22 where the rubber gasket -- and make those repairs.
23 I guess there's also a contingency that there's
24 some other source of leaking of the water in that
25 pond.

1 One thing that's kind of unusual about
2 that pond, there's -- even though we had some rains
3 last fall, that pond never dried up, so once this
4 issue was brought to my attention, I went back and
5 I looked and it appears that the -- even though
6 we're on the crest of a hill, there is groundwater,
7 it must be a little perched water table, the bottom
8 of our pond actually intercepts the local --
9 localized water table. So that's why you always
10 have some water showing in the pond. It's not that
11 our plant is discharging that water. It's
12 basically that we excavated a hole and we
13 intercepted the water table.

14 So a normal operation for that process
15 water that does get there, we only use that area
16 cooling water when it's over 60 degrees, and I
17 believe it's like two gallons a minute from each
18 plant, so it's actually a small amount of water.
19 So if it was in the summertime, we don't operate
20 24/7, typically you wouldn't with a peaking plant,
21 you would expect that water just to be in that pond
22 and evaporate. We shouldn't have any discharges
23 from the pond.

24 But going back to the leak, we'll wait
25 till it thaws. The damage that's obviously

1 happening, because it's leaking slowly, it's
2 saturating that ground in the highway ditch so then
3 you change it from a grass type of a vegetation,
4 now you have some wetland, cattails type emerging.
5 Basin Electric owns the ditch. Basically our
6 property is the centerline of the county road. We
7 have our own mowing equipment, et cetera, to
8 maintain that area, so we'll keep that area mowed.

9 Once that discharge valve is corrected, we
10 think that area will dry up like any other part of
11 the ditch in Williams County.

12 Q. Thank you. Mr. Rodney Miller testified
13 about concerns with herbicides in the water, and
14 can you respond to his concerns, please?

15 A. Sure. Part of our plant we need to
16 maintain, you know, for noxious weed controls,
17 et cetera, and then we certainly use -- like in the
18 switchyard you'll use soil sterilants. Those soil
19 sterilants are approved by EPA for its intended
20 purpose, so when you do your application,
21 et cetera, there should not be any residual to go
22 off into the stormwater pond. So if your
23 applicator is doing his correct application, we
24 don't believe any herbicides should be in that
25 pond.

1 for herbicides in the water?

2 A. Typically testing for herbicides is not a
3 discharge parameter. You look at your facility,
4 what type of waste, what type of processes that
5 occur within your collection area of your
6 stormwater pond, and herbicides is not a typical
7 thing we do. However, we do -- use of that
8 herbicide, like I say, people who deal with
9 herbicides and pesticides, the label is the law,
10 and if that permit -- I mean, that herbicide wasn't
11 licensed to be used in your area, you're
12 misapplying your herbicide.

13 Q. So is it fair to say that the way that you
14 check the herbicidal content of the water is you
15 rely upon the -- what the EPA allows and those are
16 the only types of products that you use; would that
17 be correct?

18 A. Correct. It's the proper application,
19 proper use, proper selection of the herbicide for
20 our intended use. That's correct.

21 MR. SCHMIDT: Thank you. I have no
22 further questions.

23 JUDGE MANN: Mr. Schock, anything?

24 MR. SCHOCK: No questions.

25 JUDGE MANN: Commissioner Kalk.

1 at one of our other maps here.

2 Q. Why don't you do that. Where I'm going
3 with this is, I remember before the landowner
4 had -- there was some runoff issues that caused
5 some crop loss at the Miller farm, and so ONEOK got
6 out with them to some degree, and I know there's
7 still some issues there. What I'm trying to get
8 to, I guess, is just the -- if there is something
9 that goes wrong, what's your commitment to the
10 Miller family on making sure they're happy and that
11 everything you say happens, you get it all fixed,
12 there's no more discharge coming, everything is
13 good, but if it's not, then the water goes under
14 the road and then it becomes he said/she said whose
15 water problem it is.

16 A. Sure. What I was going to look at is
17 Figure 3-1 in our application. It shows where our
18 plant site is at and then we're on this
19 hydrogeologic divide, so water that's released from
20 Pioneer I and II, it actually stays on the west
21 side of the highway, but it flows north
22 approximately -- is it a half-mile or so, and then
23 that's where it crosses to the east of County Road
24 5 and follows the drainage down that goes through
25 the Miller brothers' land.

1 As I mentioned before, we had our
2 discussions with the township board and we talked
3 about coordinating water, so if it rains and rains
4 to such a degree that we need to have a release of
5 our pond, first the water -- if our plant wasn't
6 there, that water would flow down the ditch and
7 flow down the same drainage as it always would.

8 Q. But it wouldn't be as concentrated as it
9 is now.

10 A. And that's the time. So that's what we
11 do, is we have that delay, so it's stored until it
12 meets our discharge quality parameters and then
13 it's a controlled release, so it would be later in
14 time. It most likely would be less of a volume,
15 but it would be over several days.

16 When we currently had our discussions with
17 the members of the township is that we would notify
18 the landowners, like -- as a concern was on the
19 highway ditch for haying, et cetera, so let them
20 know about our pending discharge.

21 Q. So does that mean you'll notify the Miller
22 family before you'll discharge?

23 A. If that's what it's going to take to help
24 coordinate this, yeah, we can start doing that if
25 that's --

1 Q. I thought you said that that's what they
2 asked you to do.

3 A. Well, the landowner that was -- had our
4 discussion was for the haying of the county road
5 ditch, so --

6 Q. Okay.

7 A. -- it was to try and coordinate that
8 effort. I would guess that the next step would be
9 that we could set up a system of identifying
10 contacts of whose land it was and let them know
11 that we're having our discharge. But the -- I
12 guess it won't be a right, but I'll call it the
13 privilege of discharging that water, I guess, we
14 don't really have another choice but going down the
15 natural drainage that it always would have flowed
16 down, just how you stop --

17 Q. When I was up there before, it looked just
18 like it -- there was some big rainfall events that
19 nobody planned on, there was some issues that ONEOK
20 didn't do things quite right. I think going
21 forward, my gut is if you keep working with the
22 water board, now that you've met Mr. Miller -- you
23 maybe probably already met him before -- that if
24 you keep talking back and forth, we should
25 alleviate some problems, but I just advise Mr.

1 Miller that if something goes wrong, you've just
2 got to call us just like you did before. The big
3 thing, I think, different this time is the local
4 water board is involved and they're going to put
5 some tighter strings on Basin than perhaps they put
6 on ONEOK from lessons learned.

7 A. I'm not familiar with what ONEOK did, you
8 know, to cause some concerns with the adjoining
9 landowner. I know we have our pond. It's designed
10 appropriate for the area. We have our discharge
11 permit. It's been issued. If we have a need for
12 discharge, we'll need to do that in order to be
13 compliant with our permit. However, we will
14 coordinate and assist and see how we can work
15 around the issues with the adjacent landowners.

16 COMMISSIONER KALK: Thank you, Cris. And
17 to beat the dead horse one more time, the long and
18 short of the ONEOK plant, it was supposed to be a
19 zero discharge facility and they had this huge rain
20 event and all of a sudden it became a discharge
21 facility and it had an uncontrolled release and was
22 quite a mess. So hopefully we won't have that
23 stuff happen again. Thank you.

24 JUDGE MANN: Commissioner Fedorchak?

25

FURTHER EXAMINATION

BY COMMISSIONER FEDORCHAK:

1
2
3 Q. Just a couple points of clarification. So
4 this land -- this discharge -- this pond and any
5 discharge from it, though, you expect to flow south
6 and west and that should not impact Mr. Miller's
7 property?

8 A. The discharge for Pioneer Phase III will
9 be to the west. It will not flow to the north and
10 to the east, that's correct.

11 Q. Okay. And you have the permit for that
12 and will notify the landowners, as you said. And
13 in regard to the two issues, the sheen and the
14 presence of any oil products or herbicides, you
15 test for the visual -- you have a visual
16 inspection, you do not test for the herbicides or
17 those types of chemicals, but you're only allowed
18 to use EPA-approved herbicides that I'm assuming
19 then are not harmful for agriculture?

20 A. Correct.

21 Q. Okay. And you don't -- you don't
22 anticipate that there are going to be discharges?
23 If this functions normally, it just evaporates?
24 That's how it's constructed. Obviously there can
25 be rain events, et cetera, that cause that so you

1 have the discharge permit, but it isn't part of the
2 normal operating?

3 A. For -- we'll go back to Phase III. So,
4 yeah, that will be a -- it's the pond storage,
5 volume is calculated by our continuing area what's
6 being disturbed. So for Phase III, since there's
7 going to be no industrial process water going
8 through there, we intend to head down the path of
9 having just a -- I'll call it a sedimentation
10 basin-type project where there would not be a
11 control or, you know, a controlled release, it will
12 just have the storage volume present, so when a
13 rainfall event occurs, the water has a chance to
14 get stored behind it, drop off the sediment, and
15 then it will flow by itself should the rainfall
16 event be a long enough duration to overcome the
17 storage capacity for Phase III.

18 COMMISSIONER FEDORCHAK: Thank you, Cris.

19 JUDGE MANN: Commissioner Christmann?

20 **FURTHER EXAMINATION**

21 **BY COMMISSIONER CHRISTMANN:**

22 Q. I just want to clarify one of your answers
23 to Commissioner Fedorchak's question. I'm assuming
24 you're meaning that the sprays that are used on
25 site, because of the volumes and the timing of when

1 they're applied, they shouldn't be harmful to
2 agricultural products, but if you're using a
3 sterilant and too much is used or it rains too
4 quickly too much and that washes down onto a field,
5 that is going to be harmful to ag land, as would
6 herbicides in the case of particular crops;
7 correct?

8 A. Correct. Anything that's improperly
9 applied can cause harm.

10 Q. So let's take the case of an accident and
11 some troubles like that. I suppose in real small
12 amounts it could show up in down water streams and
13 be a subject of dispute whether that came off of
14 other people's fields or yours or what, but in the
15 case of a heavy concentration, it should be visible
16 then in the valleys through which the water flowed;
17 correct?

18 A. Correct. In that scenario you are
19 correct.

20 Q. And if that happened, what is the
21 downstream landowner's course of action if a valley
22 is all of a sudden deadened?

23 A. I'm not an expert in this, but I know that
24 there is a process in North Dakota -- and perhaps
25 as an agriculture background, you might have a --

1 know more about this. Just any type of misuse of a
2 herbicide, that applicator has got the
3 responsibility. I know oversprayed conditions when
4 there's a crop being sprayed and the adjacent crop
5 is not compatible with that herbicide, there is
6 damage and there is a legal process. I believe
7 it's -- the state agricultural department has a
8 process to go for that review. And I'm sure
9 there's legal recourse as well. But in the
10 scenario that you explained, should the applicator
11 misapply or misuse a chemical and there is
12 downstream impacts, that the impacts would have to
13 have some type of a recourse, legal or, like I say,
14 through the agricultural department.

15 Q. And who does the spraying for Basin in
16 these situations, your employees that are out on
17 the site or do you hire a contractor that's
18 licensed and certified in that?

19 A. Yeah. Basin Electric does not use our own
20 spray. We do not have commercial applicators. So
21 in these remote sites here we contract that out to
22 people who have a commercial pesticide application
23 license.

24 COMMISSIONER CHRISTMANN: No other
25 questions. Thank you.

1 JUDGE MANN: Miss Jacobson, anything
2 further?

3 MS. JACOBSON: No, Your Honor.

4 JUDGE MANN: Okay. Thank you, Mr. Miller.
5 You can step down.

6 Miss Jacobson, do you have any closing
7 statement or anything?

8 MS. JACOBSON: I don't, Your Honor.

9 JUDGE MANN: Okay. Mr. Schmidt, any
10 closing comments or anything we need to address
11 before closing the hearing?

12 MR. SCHMIDT: I don't believe so, Your
13 Honor.

14 JUDGE MANN: Commissioner Kalk, any
15 closing comments?

16 COMMISSIONER KALK: Sure. Thank you, Your
17 Honor. Thank you, Basin, for putting the case
18 together and thank you, Mr. Miller, for coming out
19 here. You have to go remind your brother whose
20 farm it is after all; right? I really do
21 appreciate you coming out. That's exactly why
22 we're up here and it's an issue that we certainly
23 have been tracking for a while, and the fact that
24 you reminded everybody here, it's something that
25 will stay in our forefront of the discussion.

1 And just, I guess, as the way of planning
2 out this, you file things in to the Commission,
3 we'll get a work session scheduled as quick as we
4 can and we'll come to a decision pretty quick.
5 Thank you.

6 COMMISSIONER FEDORCHAK: I just echo those
7 thanks and appreciation -- appreciate you also
8 indulging us with some of your technical knowledge
9 beyond the scope of this hearing and sharing your,
10 you know, experiences and bringing us up to date on
11 what's going on out in this area with the latest
12 downturn in the oil patch. It's really helpful and
13 good not just for this application, but it's
14 helpful for us in other things we're doing. So
15 thank you very much.

16 JUDGE MANN: Commissioner Christmann.

17 COMMISSIONER CHRISTMANN: And I think that
18 the last discussion here is something that merits
19 our consideration on a whole -- not just this case,
20 but in a whole variety of cases because I know it's
21 a big deal in production agriculture issues of
22 pesticides and herbicides and those sorts of things
23 and what happens to the runoff, what happens to the
24 soil long term, those types of things. And, you
25 know, we deal with it on mine siting, these kinds

1 of sitings, just all kinds of things that we do, so
2 it's a good point and we'll make sure to keep some
3 of our young lawyers busy for probably many years
4 to come. But it is a good point to consider this
5 in all of our cases, and I don't have any perfect
6 solutions at this point, but we'll be certainly
7 taking it under consideration. Thank you.

8 JUDGE MANN: And I would ask that Basin
9 Electric prepare proposed findings, conclusions of
10 law and a proposed order.

11 And anything else, Mr. Schmidt?

12 MR. SCHMIDT: We did send out a sign-in
13 sheet a while ago. I'm just curious where that's
14 at. If you could just turn that in to the ALJ,
15 that would be appreciated. Thank you.

16 JUDGE MANN: Thank you. And that will
17 conclude the public hearing on this matter.

18 (Concluded at 1:19 p.m., the same day.)

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CERTIFICATE OF COURT REPORTER

I, Denise M. Andahl, 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.

Bismarck, North Dakota, this 30th day of March, 2015.

Denise M. Andahl
Registered Professional Reporter

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