

STATE OF NORTH DAKOTA  
PUBLIC SERVICE COMMISSION

Basin Electric Power Cooperative :  
Lonesome Creek Station Phase III : Case No.  
Project : PU-14-852  
Siting Application :

TRANSCRIPT OF  
PUBLIC HEARING

Taken At  
113 Ninth Avenue Southeast  
Watford City, North Dakota  
March 26, 2015

BEFORE WADE C. MANN  
-- ADMINISTRATIVE LAW JUDGE --

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COMMISSIONERS PRESENT:

COMMISSIONER JULIE FEDORCHAK, Chair  
COMMISSIONER BRIAN P. KALK  
COMMISSIONER RANDY CHRISTMANN

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FOR BASIN ELECTRIC  
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FOR THE PUBLIC SERVICE  
COMMISSION.

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1           (The following proceedings were had and  
2 made of record herein, commencing at 8:59 a.m.,  
3 Thursday, the 26th day of March, 2015:)

4           JUDGE MANN: All right. Good morning,  
5 everybody. We're now on the record and let the  
6 record show that it is 9 a.m. on March 26, 2015.  
7 We are present at Teddy's Residential Suites in  
8 Watford City, North Dakota, for the public hearing  
9 in the matter of the application of Basin Electric  
10 Power Cooperative for a certificate of site  
11 capability to construct and operate three  
12 simple-cycle combustion engines, each generating a  
13 maximum of 45 megawatts of electricity. The  
14 project is to be constructed adjacent to three  
15 existing 45 megawatt simple-cycle combustion  
16 turbines in McKenzie County, North Dakota. This is  
17 Case Number PU-14-852.

18           My name is Wade Mann and I'm the  
19 procedural administrative law judge designated to  
20 preside over this matter.

21           At this time I will have the parties note  
22 their appearances for the record, beginning with  
23 Basin Electric.

24           MS. LAMBERT: Anine Lambert, Basin  
25 Electric Power Cooperative.

1 MS. JACOBSON: Casey Jacobson, Basin  
2 Electric Power Cooperative.

3 JUDGE MANN: And PSC advisory counsel.

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

10 JUDGE MANN: Okay. Ms. Lambert, any  
11 objection?

12 MS. LAMBERT: No objection.

13 JUDGE MANN: Okay. Mr. Schock, you'll  
14 have the ability to directly examine the witnesses.

15 Okay. And also present are the  
16 commissioners, Commissioner Fedorchak, Commissioner  
17 Kalk and Commissioner Christmann. I will call on  
18 the commissioners shortly for comments before we  
19 get started.

20 The issues to be addressed at today's  
21 hearing as set forth in the notice of hearing are  
22 as follows:

23 Number one, will the location,  
24 construction and operation of the proposed facility  
25 produce minimal adverse effects on the environment

1 and upon the welfare of the citizens of North  
2 Dakota?

3 Number two, is the proposed facility  
4 compatible with the environmental preservation and  
5 the efficient use of resources?

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

12 Before we get going, I'll just briefly  
13 address the procedure for today's hearing. Basin  
14 Electric will make its presentation of its case  
15 first, call its witnesses and offer any documentary  
16 evidence into the record. Any witnesses that Basin  
17 calls will be subject to examination by counsel for  
18 advisory staff and Mr. Schock, as well as the  
19 commissioners.

20 Once Basin Electric completes presentation  
21 of its case, any members of the public who wish to  
22 come forward and offer testimony may do so. Any  
23 public witnesses will also be subject to  
24 examination by counsel for Basin, PSC advisory  
25 staff and the commissioners.

1 I serve as the procedural ALJ in this  
2 case, meaning that the commissioners are the ones  
3 that make the ultimate determination with respect  
4 to whether or not to approve the application of  
5 Basin Electric for the certificate of site  
6 compatibility. No decision will be reached on the  
7 matter today.

8 This proceeding is being digitally  
9 recorded and we also have a court reporter present,  
10 so I would just remind everybody, the witnesses and  
11 everybody asking questions just to make the  
12 questions as slow and clear as possible.

13 Any questions concerning the procedure to  
14 be followed before we get started? Ms. Lambert?

15 MS. LAMBERT: No, Your Honor.

16 JUDGE MANN: Mr. Schmidt?

17 MR. SCHMIDT: No, Your Honor.

18 JUDGE MANN: Okay. And at this time I'll  
19 call on the commissioners for opening comments. I  
20 believe this is Commissioner Kalk's portfolio, so  
21 if you want to go ahead and start.

22 COMMISSIONER KALK: Thank you, Your Honor.

23 I'll make sure to talk real fast today  
24 so -- I had to do it. I had to do it.

25 All right. Get serious for a minute.

1 Just thank Basin today for putting together a very  
2 good, thorough application. I really appreciate  
3 the testimony being laid out ahead of time so we  
4 can kind of go through it.

5 The one thing that I think is very  
6 interesting about Basin is that the Commission has  
7 come to know Basin very, very well and all of the  
8 things going on, so a lot of the questions we ask  
9 in this are the same kind of questions we've asked  
10 in other hearings. We want to make sure they're in  
11 the record. So I think you kind of know what  
12 questions I'll be looking at, the emergency  
13 response plan, make sure the county approvals are  
14 all in place.

15 The only thing in this hearing, if  
16 possible, I might want to flesh out a little more  
17 about the interconnection and how this thing will  
18 run as you get integrated into the Southwest Power  
19 Pool and how that may tie into the decisions and  
20 how this is going to be managed as a resource. So  
21 some of that is not so much tied to siting but just  
22 a better understanding of how you're going to do  
23 that with the new world of Southwest Power Pool.

24 So other than that, I look forward to a  
25 good hearing, and thank you for your work.

1 JUDGE MANN: Commissioner Fedorchak.

2 COMMISSIONER FEDORCHAK: Good morning,  
3 everyone. Happy to be here in Watford City again.  
4 I think it's three times in three weeks or  
5 something like that that we've been down to Watford  
6 City. So it's always great to get out here and be  
7 accessible to the public for any questions you  
8 might have on this project or any others that we're  
9 working on for that matter.

10 This is a project that's being constructed  
11 on an existing site that already has been reviewed  
12 and -- and for a very similar project. So there's  
13 not a lot of new issues, I don't think, with this  
14 case or with this application.

15 I just appreciate the company's thorough  
16 application and their -- their coming to us again  
17 for an order and for approval on this. It's a good  
18 opportunity for us to talk with you about your  
19 overall plans to meet the growing need for energy  
20 in this part of the -- this part of the state.

21 And so that's really where I intend to  
22 focus a lot of my questions is on some of the  
23 demand projections, et cetera, which we went over  
24 just a few weeks ago in Williston, but I have a  
25 couple of additional thoughts on that and look

1 forward to a productive hearing.

2 Also are there any members from the public  
3 here? Excellent. Good. We're glad to have you.  
4 That's the whole point of these meetings in your  
5 community, to hear from you and to get your  
6 questions answered and also to hear if you have  
7 concerns about this. So thanks for coming and we  
8 hope that you stick around and through the  
9 company's presentation and take an opportunity to  
10 answer -- or ask your questions or make your  
11 thoughts be heard to us as well.

12 So thank you.

13 JUDGE MANN: Commissioner Christmann.

14 COMMISSIONER CHRISTMANN: I just want to  
15 add on to what Commissioner Fedorchak just said  
16 about -- for the members of the public. This would  
17 be pretty convenient and easy for us to stay in  
18 Bismarck where the Basin Electric folks for the  
19 most part are and where we are and have the hearing  
20 there, but we do this -- we come out to these towns  
21 because we want the public to have access to their  
22 Public Service Commission.

23 And when I was on the other side of the  
24 fence as a rancher in the coal country area and  
25 there were sometimes new industrial-type activities

1 and such going on and there were meetings about it,  
2 I would often feel frustrated why I had to sit  
3 there for hours to say something and the company  
4 people who were all getting paid to be there got to  
5 go first. And now that I'm on this side of the  
6 fence I always like to make sure and point out the  
7 reasoning. The point of it all is for the public  
8 to be able to address the actual application as  
9 it's being proposed, not necessarily as you might  
10 have heard about it somewhere else or expect it to  
11 be. So our -- our process always is to have the  
12 company go first, lay out their case of exactly  
13 what it is that they're wanting to do and then we  
14 want to hear from the public in direct response to  
15 the actual application.

16 And we do value your opinions. So that's  
17 why we're out here. When we have the opinions of  
18 the people that are local and are impacted by these  
19 projects, it allows us to make the best decisions  
20 possible and that's what we want to do.

21 So thank you for being here.

22 JUDGE MANN: Ms. Lambert, do you have an  
23 opening statement?

24 MS. LAMBERT: No, Your Honor.

25 JUDGE MANN: Okay. Did you want to

1 address exhibits before you call your first  
2 witness?

3 MS. LAMBERT: Yes, please. I'd like -- I  
4 move to admit Exhibits 1 through 9 into the record.

5 JUDGE MANN: And, Mr. Schmidt, you've  
6 received those exhibits?

7 MR. SCHMIDT: Yes.

8 JUDGE MANN: Do you have any objection to  
9 admitting them at this point?

10 MR. SCHMIDT: I have no objection.

11 JUDGE MANN: Okay. Exhibits 1 through 9  
12 are admitted.

13 And you can call your first witness.

14 MS. LAMBERT: I'd like to call Josh  
15 Rossow, please.

16 JUDGE MANN: Good morning, Mr. Rossow.

17 MR. ROSSOW: Good morning.

18 JUDGE MANN: Before you testify, I'm  
19 required to give you an oath and advise you of the  
20 penalty for perjury in North Dakota. It's a Class  
21 C felony, punishable by a maximum fine of \$10,000,  
22 maximum five years' imprisonment or both.

23 (Witness sworn.)

24 JUDGE MANN: Okay. Go ahead.

25



1 Q. What have been your responsibilities with  
2 the Lonesome Creek Station Phase III project?

3 A. As project manager, I'm responsible for  
4 coordinating all aspects of the project, including  
5 siting, utility interconnects, developing the  
6 project budget and scope, as well as coordinating  
7 the different teams in the project, such as  
8 environmental, engineering and so forth.

9 Q. And would you please describe the status  
10 of Phases I and II of Lonesome Creek Station.

11 A. Lonesome Creek Station Phase I consisted  
12 of one GE LM6000 combustion turbine as well as  
13 balance of plant equipment and a control and  
14 administration building. Phase I became commercial  
15 in late 2013.

16 Phase II consisted of two additional GE  
17 LM6000 turbines, and those units went commercial in  
18 January of 2015.

19 Q. Would you please describe the project, LCS  
20 Phase III?

21 A. Lonesome Creek Station Phase III consists  
22 of three additional 45 megawatt GE LM6000  
23 combustion turbines. Along with that, we will be  
24 installing a short pipeline to the Northern Border  
25 interconnect and a fuel gas conditioning skid to

1 reduce the pressure to the correct pressure. We'll  
2 also be installing a 115 kV switchyard to connect  
3 these units as well as the existing three units to  
4 the transmission grid.

5 The -- each of the units will be equipped  
6 with SCR and COR pollution controls, and those SCRs  
7 use anhydrous ammonia as the reagent. We will  
8 not -- we already have anhydrous ammonia storage on  
9 site and we do not have to expand that storage.  
10 The current storage is sufficient. The compressed  
11 air and water systems are also adequate to supply  
12 the new units.

13 Q. And would you please describe the location  
14 of the project in relation to the existing units.

15 A. As you can see in the poster board there,  
16 Phase III will be located directly east of the  
17 existing three units. This aerial photograph is  
18 taken looking towards the northeast.

19 Q. And could you please describe the schedule  
20 for the project.

21 A. Provided that all necessary permits are in  
22 place, we intend to begin construction in May 2015.  
23 Units 4 and 5 are projected to begin commercial  
24 operation in June of 2016. Unit 6 will begin  
25 construction in May of 2016 and be commercial in

1 June of 2017.

2 Q. Would you please describe the natural gas  
3 and water supply for the project.

4 A. Natural gas is supplied by the Northern  
5 Border Pipeline, and the Northern Border Pipeline  
6 is a 42-inch high-pressure natural gas pipeline,  
7 and it runs across -- or very near the northeast  
8 corner of our property. And if -- the interconnect  
9 point is located in the northeast corner of our  
10 property.

11 As far as the water, we will be receiving  
12 water from the McKenzie rural water system, and  
13 that upgrade -- or that system requires very  
14 minimal upgrades, just to the metering.

15 Q. Would you describe how the project  
16 interconnects with the electrical grid.

17 A. Units -- all six units will interconnect  
18 to the 115 kV switchyard, as I mentioned before,  
19 and from that point McKenzie Electric Cooperative  
20 will bring in their transmission lines to that  
21 switchyard to interconnect the generating units to  
22 the grid.

23 Q. Would you please describe any emergency  
24 response plans that have been developed for the  
25 project.

1           A.     Basin Electric has developed emergency  
2 response plans for the Lonesome Creek Station, and  
3 that emergency response plans lays out plans and  
4 procedures to -- to handle different types of  
5 emergencies, such as medical emergencies, severe  
6 weather or fire. For example, we also are required  
7 to have a risk management program by the EPA  
8 because of the amount of anhydrous ammonia that we  
9 have stored on site, and that plan deals with the  
10 risks and hazards quite extensively with anhydrous  
11 ammonia.

12                     In addition to that, we have local  
13 emergency responders out to the site annually to  
14 familiarize them with the site and how it operates  
15 and what our emergency procedures are.

16           Q.     Would you describe the workforce needed to  
17 construct the project.

18           A.     The workforce needed to construct the  
19 project will primarily be skilled laborers such as  
20 electricians, pipefitters, welders, trades like  
21 that. We anticipate the construction -- peak  
22 construction force to be about 150 people.

23           Q.     And how many full-time positions will be  
24 created?

25           A.     Two additional operators will be added to

1 the Lonesome Creek Station staff to operate the  
2 additional three units.

3 Q. How will the project be operated?

4 A. The Units 4, 5 and 6 will be operated from  
5 the existing control room that is on site in the  
6 operations and maintenance building. However, we  
7 also have the ability to operate the units remotely  
8 from our headquarters in Bismarck. The site is  
9 only staffed Monday through Friday during normal  
10 business hours, and the operators at headquarters  
11 operate the units during nights and weekends.

12 Q. Would this site be able to accommodate any  
13 additional generation?

14 A. Certainly we have the -- the physical  
15 space available to construct additional generation.  
16 We also have adequate natural gas supply. However,  
17 we would need to do upgrades to the transmission  
18 system, potentially the water supply. And, of  
19 course, it would depend on the results of the air  
20 modeling. However, at this time we don't have any  
21 additional plans -- or plans to add additional  
22 generation at this site.

23 MS. LAMBERT: Thank you. No more  
24 questions.

25 JUDGE MANN: Mr. Schmidt.

1 MR. SCHMIDT: Thank you, Your Honor.

2 CROSS-EXAMINATION

3 BY MR. SCHMIDT:

4 Q. During your testimony you talked about the  
5 switchyard that will be put in place. Why is the  
6 switchyard necessary with the inclusion of the  
7 third phase of this project but was not necessary  
8 with Phases I or II?

9 A. Phase I and II had a single transmission  
10 line that went to the Hay Butte Substation owned by  
11 McKenzie Electric Co-op, and the Hay Butte  
12 Substation served the function of this switchyard.  
13 In this case that single transmission line is not  
14 adequate for all six units, and so we must build  
15 this switchyard to connect all six generators to  
16 three transmission lines that will be coming into  
17 the site. And the switchyard has switches and  
18 breakers and protective relays that protect against  
19 faults and misoperation, things like that, that  
20 increase the reliability of the electrical grid.

21 Q. So is it fair to say the switchyard is  
22 necessary because more transmission lines are going  
23 to be required to operate the expanded plant?

24 A. Yes. That's correct.

25 Q. Okay. The application alluded to this a

1 little bit and I know we talked about it a lot at  
2 the last hearing we had with you guys. The engines  
3 that were used at the last hearing, you talked  
4 about RICE engines being used, and here they're  
5 using 45 megawatt simple-cycle engines. Can you  
6 just kind of explain why the different engines are  
7 being used for this plant as opposed to the last  
8 plant?

9 A. Yes. The economics of which technology to  
10 choose is quite different between Lonesome Creek  
11 Station and Pioneer Station. At Pioneer to install  
12 additional combustion turbines, we would have had  
13 to have quite extensive upgrades to our water  
14 systems. However, at Lonesome Creek Station, the  
15 common facilities, the water, ammonia and air  
16 systems, only require very minimal upgrades to  
17 handle the additional three units. And so it --  
18 capital costwise it's much less expensive to build  
19 the LM6000s at Lonesome Creek Station.

20 Q. Are there any safety hazards or any other  
21 concerns that occur from the use of a single-cycle  
22 engine as opposed to the RICE engine?

23 A. No. They're -- I'm not aware of any undue  
24 hazards.

25 Q. You mentioned that there's going to be a

1 pipeline that's going to be installed as part of  
2 this project; is that correct?

3 A. Yes.

4 Q. Is that going to be an aboveground or an  
5 underground pipeline?

6 A. It will be an underground pipeline, all of  
7 which is located on Basin Electric property.

8 Q. Can you just kind of give me an idea where  
9 that pipeline will run? Can you just point it out  
10 on one of the maps and verbally describe it?

11 A. Yes. So Phase III is located right here,  
12 and right where I'm pointing is where there will be  
13 a fuel gas conditioning skid. And up in the  
14 northeast corner of the property is the Northern  
15 Border interconnect station and it will be just a  
16 short pipeline, perhaps no more than 500 feet  
17 between those two points.

18 Q. Will there be any new roads that need to  
19 be constructed with the expansion of this project?

20 A. We will construct additional roads to  
21 provide access to the 115 kV switchyard. There  
22 will be a -- an approach off 140th Avenue  
23 approximately in this area right here to access the  
24 switchyard, and then there will be a second access  
25 point to the switchyard from the -- the current

1 access road for Lonesome Creek Station that would  
2 come across this way.

3 Q. So both of those roads, will they be  
4 completely on Basin-owned property?

5 A. Yes.

6 Q. In the application I gather that the  
7 construction of this will be primarily done by  
8 contractors; is that correct?

9 A. That's correct.

10 Q. How does Basin go about monitoring the  
11 work of the contractors throughout the project?

12 A. We have on-site construction supervision  
13 that monitors the activities of the contractors.  
14 We also have Basin Electric safety representatives  
15 that do periodic inspections. The contractors are  
16 also required to report any safety incidences that  
17 may happen, as well as the contractors are required  
18 to follow all OSHA safety regulations.

19 Q. During your testimony you mentioned how  
20 the new project can be operated from either on site  
21 or in Bismarck. The application talked a little  
22 bit about the Culbertson Station in Montana. Is  
23 that also a possible operation -- operating point?

24 A. Yes, it is, but in practice it happens  
25 very rarely.

1 Q. So what type of events would cause the  
2 operation to move off site, other than just nights  
3 and weekends like you testified to?

4 A. We -- we staff the station with employees  
5 that do -- that both operate and maintain the  
6 units, and so sometimes the employees are out in  
7 the field doing maintenance on the units. And  
8 during those time periods they'll pass control to  
9 headquarters in Basin -- or at Basin headquarters.

10 Q. Are there any additional risks associated  
11 with operating the plant from an off-site location?

12 A. The units are equipped with safety systems  
13 to make the remote operation possible. The --  
14 there are quite a lot of safety interlocks that if  
15 anything is out of order, it will prevent operators  
16 from starting the units. And if one of our  
17 employees happens to be out there working on a  
18 unit, they employ lockout/tagout practices to make  
19 sure that any energy sources are shut off and  
20 secured with a physical lock.

21 Q. There's also a mention of a warehouse that  
22 will need to be constructed. I think it's just  
23 basically to store things. Can you just point out  
24 on the map where that will be located?

25 A. Yes. It will be located in this location

1 right here between Unit 3 and Unit 4.

2 Q. And there's also discussion in the  
3 application about the installation of two separate  
4 4,000-gallon underground oily wastewater collection  
5 tanks that need to be installed as part of this  
6 project. Can you just kind of show me on the map  
7 where those will be installed?

8 A. They are located in this case between  
9 Units 4 and 5 and then there will be an additional  
10 one for Unit 6. So if -- it would be in between  
11 the first two and then by the third one as well.

12 Q. Is there any potential negative effect on  
13 groundwater as a result of installing these type of  
14 tanks?

15 A. We don't believe so. The tanks are  
16 fiberglass reinforced plastic tanks with leak  
17 detection systems, and the -- the -- it will  
18 primarily be water that goes into the tank.  
19 However, the water has a potential to have oily  
20 residues in it, and that's why it's collected and  
21 shipped off site for proper disposal.

22 Q. So in the event of a leak, could you just  
23 kind of walk me through what would happen?

24 A. We would get an alarm in our control room  
25 and we would -- we have contracts with a -- with a

1 disposal agency, and we would call them immediately  
2 to have it pumped and disposed of properly. At  
3 that point we would -- we would unearth the tank  
4 and determine where the leak is.

5 MR. SCHMIDT: I have no further questions.

6 JUDGE MANN: Mr. Schock.

7 **CROSS-EXAMINATION**

8 **BY MR. SCHOCK:**

9 Q. Do you have an estimate of the projected  
10 run time for each of the new units?

11 A. Historically, our peaking units have  
12 operated about 10 percent of the time, which is  
13 fairly typical for a peaking unit. However, in  
14 recent years we have seen operation increase quite  
15 considerably, especially in the summer and winter  
16 months.

17 Q. So you would expect similar 10 percent or  
18 so for these units?

19 A. Probably on the order of 15 to 20 percent.

20 Q. Okay. Okay. In all the facilities, so  
21 including the pipelines, the switchyard, all of  
22 that is going to be on Basin-owned property;  
23 correct?

24 A. That is correct.

25 Q. You had also talked about the construction

1 schedule. So your intention would be to start  
2 construction on Units 4 and 5 yet this year with  
3 the completion and commercial operation by  
4 mid-2016, but you're delaying construction of Unit  
5 6 until 2016. Is there a reason for that?

6 A. Ms. Kern will talk about our load forecast  
7 process and why -- why we decided to delay the  
8 construction of Unit 6.

9 Q. Okay. As far as the cost, in the  
10 application the cost for this application was  
11 listed as \$99.3 million, but I notice when you  
12 started kind of talking through the details Units  
13 1 -- or, I'm sorry, Units 4 and 5 are estimated to  
14 cost 99.3 million and Unit 6 is an additional  
15 49.65; is that correct?

16 A. That's correct.

17 Q. So sum total it will be closer to 149  
18 million for the entire -- this entire project?

19 A. That's correct.

20 Q. And that includes all of the associated  
21 facilities, the outbuildings and pipelines and  
22 switchyards and things like that?

23 A. Yes.

24 MR. SCHOCK: Okay. I have no further  
25 questions.

1 JUDGE MANN: Commissioner Kalk.

2 COMMISSIONER KALK: Thank you, Your Honor.

3 **EXAMINATION**

4 **BY COMMISSIONER KALK:**

5 Q. Thank you, Josh, for your testimony.

6 Looking ahead to the prepared testimony, I  
7 think most of my questions will go to Becky on the  
8 interconnect stuff. So I just have a couple just  
9 general question.

10 Six units now, 45 megawatts apiece, so  
11 what's this, 270 megawatts of generation you have  
12 here now? The -- how much has Basin looked at  
13 making these combined cycle instead of simple cycle  
14 so you've got a baseload resource down the road? A  
15 transition plan in the future, if you will. You  
16 can see it coming.

17 A. In theory, you could convert these to  
18 combined cycle, but in practice it would be very  
19 cost prohibitive to do that. And Ms. Kern can talk  
20 about our needs for peaking generation versus  
21 baseload and intermediate.

22 Q. So you view it as cost prohibitive to  
23 convert these? I mean is that kind of industry  
24 standard that if you're going to do combined cycle,  
25 you do it early or you don't do it at all?



1 the summer. At its peak how often do you expect it  
2 to run, say, during the summer months?

3 A. There have been months in the -- in the  
4 winter of 2013-14 and the winter of 2014-15 where  
5 the units run 50 percent of the time. Summertime  
6 is less extreme, but over the annual average it's  
7 in that 10 to 20 percent range.

8 Q. Okay. Now, this is a little surprising to  
9 me because of the -- how I understand the nature of  
10 the load out here to be with a lot of the  
11 industry-driven load like the gas plants and the  
12 well sites. It isn't an up and down. It's steady.  
13 So what's driving the peaks and is there a  
14 significant difference between just the base and  
15 then what the peak is?

16 A. I'll let Ms. Kern address that --

17 Q. Okay.

18 A. -- if that's okay.

19 Q. Sure. You have -- let's see here. Tell  
20 me the status of the conditional use permit with  
21 the county.

22 A. I'd like to let Mr. Miller address that.

23 Q. Okay. Have you had any issues -- you said  
24 you get the gas from the Northern Border Pipeline.  
25 Do you have a -- do you have an off-ramp from that

1 pipeline that connects to the northwest corner or  
2 are you that close to the actual main Northern  
3 Border?

4 A. Yes. The actual Northern Border is not  
5 physically on our property. It just barely skirts  
6 past the corner going in a -- from northwest to  
7 southeast, and so it's just a very short spur onto  
8 our property.

9 Q. And is that pipeline already in  
10 existence --

11 A. Yes.

12 Q. -- to serve your facility?

13 A. Yes.

14 Q. Okay. Have you had any issues -- this is  
15 a little bit off the subject, but it's something  
16 I've heard concerns about with that pipe. Have you  
17 had any issues with that gas being too hot?

18 A. No, not on Northern Border yet, but we  
19 have seen that the BTUs are trending upwards.  
20 Not -- we're not certain what the future will  
21 bring, but right now the elevated BTUs have not  
22 caused us a problem.

23 Q. And would the addition of more BTUs from  
24 the conditioning at the well site -- my  
25 understanding is that could increase the BTU

1 content of the gas because they have to pull off  
2 more of the hot stuff and inject it into the  
3 natural gas that's flowing in those kind of lines.  
4 What kind of concerns do you have about that and  
5 how do you work that out with your provider? And  
6 is it Northern Border or do you buy it from --  
7 actually buy the gas from somebody else and  
8 Northern Border is just the transportation?

9 A. That's correct. Northern Border is just  
10 the transportation. We -- we may buy it from  
11 Dakota Gasification, which is our subsidiary, or  
12 some other party. As far as how we deal with that,  
13 we primarily do it through technology selection.  
14 In the case of Lonesome Creek Station here, we're  
15 able to use a dry combustion process that uses very  
16 little -- it does not use water for NO<sub>x</sub> control.

17 At our Pioneer Generation Station, that is  
18 located on a -- right next to a gas processing  
19 plant, and so the BTUs are much higher and that gas  
20 much richer in ethane and propane which increases  
21 the BTUs. And in that case we had to use  
22 LM6000-PC, which uses water for NO<sub>x</sub> control, thus  
23 the additional water requirements for those units.  
24 And that was also a factor in our choosing the  
25 reciprocating engines there because they don't use

1 water in any continuous fashion.

2 In the case of Lonesome Creek Station  
3 here, as I said, the gas is kicking upwards, but  
4 it's still a long ways off from where we would have  
5 troubles with it.

6 Q. And I would assume you can go to your  
7 supplier and say they need to fix it if that gets  
8 to be a problem?

9 A. No. We really don't have a whole lot of  
10 options there. The Northern Border Pipeline has  
11 standards on what is allowed to be injected into  
12 their pipeline and the gas processing plants and to  
13 push that -- those BTUs as high as possible so that  
14 they have a way to get rid of that ethane and  
15 propane. And so they typically have the maximum  
16 BTUs allowed by the tariff.

17 Q. I see. And then one other question on the  
18 gas supply. Do you have a long-term contract  
19 secured or how do you guys deal with your gas  
20 purchase and the price and, you know, having some  
21 certainty there?

22 A. We have long-term gas transport contracts,  
23 on the order of 20 to 30 years sometimes. However,  
24 for the gas purchase of the actual fuel, Basin  
25 Electric hedges -- I believe currently we're hedged

1 out to 2019 to protect ourselves against increases  
2 in gas cost.

3 Q. So four -- four years is your furthest  
4 commitment on gas?

5 A. That's correct.

6 Q. Is it possible to get a 10-, 20-year  
7 contract for gas purchase?

8 A. It is, but I've been told that with a  
9 peaking unit, it's difficult to do that because of  
10 the uncertainty of how we're going to run 10,  
11 20 years out.

12 Q. And then shifting gears a little bit, what  
13 is the greatest safety risk of a plant such as  
14 this, say public safety and employees?

15 A. I would -- I would hate to term any one  
16 thing as the greatest risk. We believe this is a  
17 very safe plant. We have safe practices for our  
18 employees to protect them against various workplace  
19 injuries and accidents.

20 As far as the public goes, the anhydrous  
21 ammonia has the most potential to affect the  
22 general public, and that's why we are required to  
23 have the risk management program. And what that  
24 program does is it -- it requires us to place very  
25 high attention to maintenance and integrity --

1 mechanical integrity on the anhydrous ammonia  
2 systems. It requires us to have very detailed  
3 procedures for operating the anhydrous ammonia  
4 systems, procedures on filling the tanks, and it  
5 also requires us to interface with the local  
6 emergency planning committee and other local  
7 responders. And so we believe the anhydrous  
8 ammonia system is very safe as well.

9 Q. And that's trucked in --

10 A. Yes.

11 Q. -- the anhydrous?

12 How often do you have to resupply that?

13 A. I believe in continuous operation we have  
14 three to four days of anhydrous ammonia stored on  
15 site.

16 Q. Okay. And you're the project manager, so  
17 would you be the one to talk about any complaints  
18 you had from neighbors or the public about concerns  
19 on this project?

20 A. I'm not aware of any, but Mr. Miller would  
21 probably be better equipped to answer that.

22 COMMISSIONER FEDORCHAK: All right. Fair  
23 enough. Thank you, Josh.

24 JUDGE MANN: Commissioner Christmann.

25

**EXAMINATION**

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**BY COMMISSIONER CHRISTMANN:**

Q. You stated there's no plans for Phase IV or a Unit 7 or anything like that; correct?

A. Correct.

Q. So about last -- last year around this time we must have approved Unit 3 because you started construction in May of last year, I believe. So if I look back in that filing, were there plans for these phases back then or was this unplanned a year ago?

A. At that time we were -- we recognized that there was a need for additional peaking generation, but we had not chosen a site yet. So we had not specifically targeted the Lonesome Creek Station at that point in time.

Q. It's in here somewhere, but I don't remember exactly where. Is your -- the size of your connection to Northern Border ten inches?

A. I'm not entirely certain, but that's certainly --

Q. And I guess the size of it maybe isn't -- the number isn't so important, but you said whatever it is is enough to service these three additional units; correct?

1           A.    Yes.

2           Q.    And would that be -- have enough capacity  
3 to serve additional units, or if you added  
4 additional units, would it take an additional or a  
5 change in that tie-in?

6           A.    No.  It is sized that it could accommodate  
7 additional units.

8           Q.    Okay.  And the -- is it dark blue or  
9 black, the boundary of the facility?  Is that the  
10 boundary of Basin's property?

11          A.    That is the energy conversion facility  
12 boundary that we're proposing.  Basin Electric owns  
13 160 acres, and so I'm not certain what the acreage  
14 is here, but it's -- it's a fraction of that.

15          Q.    It's more than that?

16          A.    Yes.

17          Q.    So am I confused or is east at the top of  
18 that map?

19          A.    That's correct.

20          Q.    Okay.  That's what had me off.  I'm used  
21 to it being north.  Your pilot or your photographer  
22 fooled me.

23                    Okay.  So which direction is the  
24 additional property that Basin owns?

25          A.    It would be to the south or right.



1           A.     We plan early on what the cost will be  
2     for -- to decommission or we project what the cost  
3     will be.  As far as life cycle physically,  
4     certainly 30 years, perhaps indefinitely.  If you  
5     can keep on replacing components, that plant could  
6     operate indefinitely.  Now, there are other things  
7     out there that could force it to be decommissioned  
8     that we just can't predict.

9           Q.     But -- and this is not necessarily siting  
10    so much but it is the backside of the land use.  We  
11    spend a lot of time talking about wind farm  
12    decommissioning.  So I'm just curious, do you  
13    depreciate this out in a 20-year period or a  
14    30-year period?  Do you set aside moneys to  
15    decommission it, or when it's all said and done, is  
16    that a rate that then gets put on Basin members to  
17    shut it down?

18          A.     Ms. Kern can better answer the  
19    depreciation schedule for the project.

20                   COMMISSIONER KALK:  Okay.  Thank you.

21                   JUDGE MANN:  Commissioner Fedorchak?

22                   COMMISSIONER FEDORCHAK:  No more.

23                   JUDGE MANN:  Okay.  Commissioner  
24    Christmann?

25                   COMMISSIONER CHRISTMANN:  Nothing.

1 JUDGE MANN: Ms. Lambert, anything further  
2 for the witness?

3 MS. LAMBERT: No, Your Honor.

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

6 And you can call your next witness.

7 MS. LAMBERT: I'd like to call Ms. Becky  
8 Kern, please.

9 JUDGE MANN: Ms. Kern, before you testify,  
10 I'm required to give you the oath as well, advise  
11 you of the penalty for perjury in North Dakota. It  
12 is a Class C felony, punishable by a maximum fine  
13 of \$10,000, maximum five years' imprisonment or  
14 both.

15 (Witness sworn.)

16 JUDGE MANN: Okay. Go ahead.

17 MS. LAMBERT: Thank you, Your Honor.

18 **BECKY KERN,**  
19 being first duly sworn, was examined and testified  
20 as follows:

21 **DIRECT EXAMINATION**

22 **BY MS. LAMBERT:**

23 Q. Ms. Kern, in your prefiled testimony  
24 listed as Exhibit 2, is that true and correct to  
25 the best of your knowledge?

1           A.    Yes, it is.

2           Q.    Thank you.  Would you please provide your  
3 name, business address and occupation.

4           A.    My name is Rebecca Kern.  My business  
5 address is 1717 East Interstate Avenue, Bismarck,  
6 North Dakota.  I am the director of utility  
7 planning at Basin Electric.

8           Q.    And please describe your employment  
9 history and educational background.

10          A.    My educational background, I received a  
11 bachelor of science degree from NDSU, North Dakota  
12 State University, in electrical engineering and  
13 began my employment at Basin Electric in 2003.  I  
14 was a power supply engineer for Basin Electric for  
15 about ten years, responsible for long-term power  
16 supply planning activities, and for the last two  
17 and a half years I've been a manager or the  
18 director of utility planning responsible for  
19 long-term load forecasting and long-term power  
20 supply planning activities.

21          Q.    And would you please describe your  
22 involvement with Phase III of the Lonesome Creek  
23 Station.

24          A.    My involvement has been on the need for  
25 this facility.  It's been in the development of the

1 long-term load forecast and identifying which  
2 resource is best -- that makes best sense for Basin  
3 Electric and its members and its growing load  
4 obligation.

5 Q. Please describe the load forecast process  
6 and how the need for this project was determined.

7 A. The load forecasts are performed either  
8 every other year or every three years with annual  
9 updates and are prepared in accordance with the  
10 Rural Utilities Service criteria. The load  
11 forecast represents a joint effort by the  
12 distribution cooperatives, the generation and  
13 transmission cooperatives and Basin Electric.

14 In order to ensure all segments of the  
15 cooperative's structure are involved, a load  
16 forecast technical committee was established. This  
17 committee consists of representatives from the  
18 distribution cooperatives, the G&T cooperatives and  
19 Basin Electric. The load forecast is prepared on a  
20 distribution cooperative basis.

21 The RUS criteria define a load forecast as  
22 a thorough study of a cooperative's electric loads  
23 and the factors that affect those loads in order to  
24 determine as accurately and as practical the  
25 cooperative's future requirements for energy and

1 capacity. The basis for econometric modeling is to  
2 identify factors in the economy that have  
3 historically affected electrical consumption. This  
4 is accomplished by using regression analysis  
5 software that establishes a mathematical  
6 relationship between the economic factors and power  
7 usage.

8           The mathematical relationship, which is in  
9 the form of algebraic equations, represent the  
10 econometric model. Different models are developed  
11 for each member, depending on the type of load they  
12 serve. Examples of these models include  
13 residential, oil-related, coal-related, ethanol and  
14 biodiesel-related forecasts.

15           There are certain instances where a  
16 mathematical equation cannot be developed to  
17 predict the future. In these cases, judgmental  
18 forecasts are created with the help of the  
19 distribution cooperatives serving the loads because  
20 of their local knowledge and expertise.

21           These results of the load forecasts are  
22 then translated into a model that represents Basin  
23 Electric's system on a delivery point basis. This  
24 allows for the planning of infrastructure  
25 improvements to be made where needed. The load

1 forecast is then monitored on a monthly basis to  
2 ensure that the forecast is performing as expected.

3 With the loads by delivery point process,  
4 we also then move into our power supply planning by  
5 power supply planning areas, which generally are  
6 related to transmission constraints or balancing  
7 areas. From there we look at all of our existing  
8 resources in that area and determine what  
9 additional power supply or additional obligations  
10 we need to meet in those different power supply  
11 planning areas. And we plan to meet those future  
12 obligations plus planning reserves that are needed  
13 to comply with criteria of the power pools.

14 Within each of those areas we evaluate  
15 different options that are available to meet this  
16 growing need and utilize a production cost model,  
17 an additional peaking generation look to make the  
18 most economic sense for Basin Electric and its  
19 members for the growing obligations.

20 Q. And would you please describe the results  
21 of the 2014 load forecast.

22 A. The 2014 load forecast was approved by  
23 Basin Electric -- or by our members' board of  
24 directors as well as Basin Electric's board of  
25 directors in the spring of 2014. This forecast

1 showed that Basin Electric's entire membership was  
2 anticipated to grow almost 1900 megawatts from 2014  
3 through 2035.

4 Q. And has Basin reviewed the 2014 load  
5 forecast in light of the decreasing oil prices?

6 A. Yes. Just this recent spring, the spring  
7 of 2015, Basin Electric completed a new 2015 load  
8 forecast. This forecast had been developed over  
9 the past year, and ultimately because of the  
10 decreasing oil prices, we developed a baseline  
11 forecast, which was based on the conditions that  
12 we've seen for the past year, as well as an  
13 alternative case that looked at the decreasing oil  
14 prices.

15 In this alternative case, we did look at  
16 half the number of drilling rigs that were  
17 historically projected or what's been going on, and  
18 the -- the new -- we are still anticipating  
19 significant load growth within our membership even  
20 with the decreasing oil prices. It looks to be a  
21 more refocusing -- at least what we're seeing, a  
22 refocusing on where the drilling is happening,  
23 maybe drilling into those prime spots more so than  
24 on the fringes.

25 Q. Thank you. Would you please explain the

1 process that Basin Electric used to determine this  
2 facility should be constructed in two construction  
3 seasons.

4 A. When Basin Electric determined that we  
5 needed this additional generation, we were also  
6 anticipating additional need in the 2017-18 time  
7 period and looked at this as one possible ability  
8 to meet that following year need and so planned  
9 this site to meet that additional growing as one  
10 alternative.

11 Q. Would you please describe the dispatch  
12 process for this -- for these three units.

13 A. These units will be dispatched based on  
14 market conditions and local area reliability needs  
15 to support the Williston Basin area. The plant  
16 will be notified that the units need to operate and  
17 provide a time for when those units need to be at a  
18 specified generation level. These units are  
19 capable of being online and generating electricity  
20 within about 10 to 15 minutes.

21 Q. And how does the project affect the  
22 reliability of the electrical system?

23 A. This project, as well as the Culbertson  
24 Generation Station and the Pioneer Generation  
25 Station and the existing facilities at the Lonesome

1 Creek Station, will provide local generation in the  
2 event of transmission line outages or for local  
3 area support as necessary.

4 Q. Besides this project, what else is Basin  
5 Electric doing to meet electrical demand within  
6 North Dakota and throughout the company's service  
7 territory?

8 A. Basin is also developing Phase III of the  
9 Pioneer Generation Station to be online in 2016.  
10 Basin Electric has also entered into several power  
11 purchase agreements for additional wind generation  
12 to be online in 2015 and 2016. These additional  
13 wind power purchase agreements will bring Basin  
14 Electric's wind generation portfolio to almost  
15 1400 megawatts when completed.

16 Basin has also entered into a number of  
17 power purchase agreements to provide additional  
18 capacity and energy to meet our growing obligations  
19 as we continue to monitor the load growth on our  
20 system as well as to evaluate the need for  
21 additional generation within our service territory  
22 over the next three to seven years.

23 MS. LAMBERT: I have no more questions,  
24 Your Honor.

25 JUDGE MANN: Mr. Schmidt.

1 MR. SCHMIDT: Thank you, Your Honor.

2 CROSS-EXAMINATION

3 BY MR. SCHMIDT:

4 Q. Could you just briefly explain the  
5 correlation between oil prices and energy demand?

6 A. As -- I guess as oil prices drop, we've  
7 seen some, you know, impacts here in western North  
8 Dakota as far as the number of drilling rigs and  
9 the amount of additional load that may come online.  
10 We have not that I'm aware of seen any existing  
11 load obligations stop operating. So with the  
12 decreasing oil prices I think what's happening is a  
13 change in the slope of growth, you know, how much  
14 additional load is going to come in the future.  
15 But as I had stated, also, it's a refocusing where  
16 it makes more sense with these decreasing oil  
17 prices.

18 Q. So I guess from that answer I'm trying to  
19 figure out is there a direct correlation between  
20 oil prices and power demand or is -- are there a  
21 lot of other factors that come into play? I guess  
22 how does that all play into each other?

23 A. There probably can be, but it's going to  
24 affect the load growth of that sector, you know,  
25 and if -- if in North Dakota there is a significant

1 amount of people here or people start moving away  
2 again with decreasing oil, it may affect other  
3 sectors as well. Is it going to be a direct  
4 correlation? I don't know exactly. It will affect  
5 some, but the existing load that's there that's  
6 been developed will stay. And so you're not going  
7 to see stuff go away that came about because of  
8 higher prices.

9 Q. What leads you to believe that that  
10 existing demand will stay?

11 A. They've already put the infrastructure in  
12 the ground. Most of their costs are already sunk  
13 costs. Now they just want to recover everything.  
14 And from what I understand, you know, I think they  
15 can make back a lot of -- the oil industry can make  
16 back a lot of those costs within the first several  
17 months, year of operation or something like that.  
18 You know, so it's a lot of profit as they continue  
19 to operate those facilities. So that's why I think  
20 they will continue operating what's already been  
21 developed.

22 Q. During your testimony you said that there  
23 was -- an alternative model was put together where  
24 you, I guess, adjusted your forecast for falling  
25 oil prices, and you still said that you expected an

1 increase in demand even in that event. Can you  
2 just kind of elaborate on that and explain why you  
3 came to that conclusion?

4 A. Basin Electric serves obligations in nine  
5 states. So even with decreasing oil growth, yeah,  
6 we saw impacts to North Dakota -- impacts, but  
7 other areas of our service territory are still  
8 planning to grow. And so that growth is not  
9 anticipated to be affected by that, so that's where  
10 Basin is still planning or at least anticipating to  
11 see load growth.

12 I think, you know, with this refocusing,  
13 you know, some companies, if they have brought  
14 people here, they've got the infrastructure here,  
15 they may still continue to develop things. It's  
16 just they're going to look for those more prime  
17 locations than on the fringes that don't bring as  
18 much profit for them.

19 Q. So when you're talking about those prime  
20 locations, are you making the assumption that all  
21 of the energy usage that is currently being used  
22 will just be focused more on less area or what are  
23 you kind of getting at with that comment?

24 A. The future load growth, future development  
25 in western North Dakota, you know, it's maybe a

1 broad range, broad area, you know, and on the  
2 fringes are, you know, maybe less profitability,  
3 and by refocusing you've got more profit-centered  
4 stuff in those prime areas, such as I think  
5 McKenzie County, Mountrail County, Williams County  
6 where you can get more production out of those  
7 wells.

8 Q. So is it fair to say that they're just --  
9 you're anticipating a refocusing of energy usage  
10 but still the same amount of energy to be used?

11 A. There's -- we've anticipated there's going  
12 to be a drop in the number of drilling rigs, which  
13 we've seen here over the last number of months that  
14 drilling rigs have dropped off, but there is still  
15 drilling activity going on. And I just think that  
16 the drilling rigs that are continuing to operate  
17 here are looking at more prime locations. Again,  
18 it's the future load growth.

19 Q. So when you're performing your forecasts,  
20 how much of the forecast data that you take -- or  
21 how much of the data you take to make your forecast  
22 is based just on North Dakota as compared to the  
23 totality of the data that goes into your forecast?

24 A. As I stated earlier, Basin serves a  
25 nine-state region and we prepare load forecasts for

1 every single one of our distribution co-ops. So  
2 there are -- Basin has got 138 member cooperatives  
3 within our system, so we do perform load forecasts  
4 for all of our distribution co-ops in North Dakota,  
5 South Dakota, Montana. You know, we prepare a  
6 model for each one of those members.

7 Q. Would Lonesome Creek service all nine  
8 states or would it just service North Dakota?

9 A. It will primarily service the area -- the  
10 balancing area that North Dakota is in -- that our  
11 obligations in North Dakota are in. When I talked  
12 about power supply planning areas previously, we  
13 have load obligations in MISO. We will have them  
14 in SPP. It's formerly our integrated transmission  
15 system with Basin and WAPA, but we're moving to the  
16 Southwest Power Pool. We also have obligations in  
17 the Western electricity interconnection.

18 And so this resource will primarily  
19 service the load obligations in North Dakota,  
20 western North Dakota, as well as helping to meet  
21 our obligations in the Southwest Power Pool.

22 MR. SCHMIDT: I have no further questions.

23 JUDGE MANN: Mr. Schock.  
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**CROSS-EXAMINATION**

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**BY MR. SCHOCK:**

Q. Going back to the construction schedule, the Units 4 and 5 are scheduled to be started this year, finish next year, but Unit 6 is delayed start of construction until 2016. What's the reason behind that?

A. We wanted to continue to evaluate the load growth. We knew we needed additional generation in 2016, and so we moved forward with Phase III of Pioneer and the first two units on Lonesome Creek. And we have the ability to have another unit online probably about a year later, and we're monitoring the load growth and the additional need for that additional resource.

Last year when we identified we needed resources in 2016, we also identified we would probably have additional need in 2017, '18 and beyond, and we're looking at ways to develop sites, and it -- there was a low cost to Basin to have that ability to move forward with the permitting and everything on that unit right away.

Q. Okay. So it's possible you would not build Unit 6 if the load didn't develop as expected today?



1 Pool facility, you know, and help serve local load  
2 and move to other load as necessary.

3 Q. So what interconnection approval did you  
4 have to get for that 115? Do you already have all  
5 those interconnect approvals?

6 A. We will need an interconnection agreement  
7 with McKenzie Electric to interconnect this  
8 facility to their system. We also need an  
9 interconnection agreement with the transmission  
10 provider. Ultimately, it will be the Southwest  
11 Power Pool in the future. However, today it is  
12 Western as the administrator under the IS  
13 transmission tariff, and we've been moving forward  
14 with a generator interconnection agreement with  
15 Western Area Power Administration, and that  
16 agreement would basically just transfer underneath  
17 the SPP process.

18 Q. So what size of interconnection are you  
19 asking for? The 115 or are you asking for larger?

20 A. The generator interconnection agreement is  
21 based on the size of the unit that you're  
22 interconnecting. So here we've got -- either  
23 you've got two additional units or a third unit, so  
24 it's 90 to 135 megawatts is what we are requesting  
25 interconnection for.

1 Q. So you have the previous approvals in  
2 place?

3 A. We have the previous three units, yes.

4 Q. Okay. The -- the 115 kV line, so how  
5 confident are you that's going to be enough?

6 A. I rely on our transmission planners with  
7 Western Area Power Administration. They do all the  
8 study work in conjunction with the local area co-op  
9 to make sure that that's adequate.

10 Q. Okay. So back to the planning model.  
11 The -- we talked about interconnection, size.

12 Oh, on a sidebar, can you break me down  
13 again what's Basin's total generation and breakout  
14 of coal, wind and gas? I know you may not have  
15 exact, but give me your SWAG.

16 A. Basin Electric on a capacity basis has  
17 around 5500 megawatts of generation capacity within  
18 our portfolio today. Of that, I believe 55ish  
19 percent of that is from coal generation. I know  
20 today Basin has 700 megawatts of wind generation in  
21 our portfolio, soon moving closer to 1400 megawatts  
22 by the end of 2016.

23 Q. How much gas do you have now, roughly, do  
24 you think?

25 A. It's probably in the neighborhood of 7 to

1 8 hundred prior to Pioneer Phase III and Lonesome  
2 Creek Phase III.

3 Q. Okay. Thank you. You talked about the  
4 operation is out of Bismarck. I'm still trying  
5 to -- I'm missing -- I'm not understanding perhaps  
6 how you operate out of Bismarck but then the  
7 integrated system is controlled somewhere else.  
8 How does that gel?

9 A. Well, as Basin moves to the Southwest  
10 Power Pool -- and I'll talk about that because  
11 these units will come online after Basin has  
12 integrated into the Southwest Power Pool, so  
13 everything will be under SPP dispatch then. The  
14 Southwest Power Pool operates an energy market  
15 where they perform all the generation dispatch of  
16 their footprint, you know, so I'm not exactly sure  
17 how many states they're in, but, you know, it would  
18 be all of North Dakota, South Dakota, Nebraska,  
19 Oklahoma, you know, all of their footprint.

20 And they go in and determine which units  
21 should be dispatched to produce the lowest cost for  
22 all the entities within that footprint. And they  
23 will have electronic signals that go back to  
24 basically the headquarters or specifically to the  
25 units that are under the dispatch of the Southwest

1 Power Pool.

2 And so Basin Electric headquarters will  
3 receive set points from Southwest Power Pool  
4 indicating that these units need to be operated and  
5 they need to come on in 10 or 15 minutes or they  
6 need to come on an hour or two from now. And from  
7 there Basin Electric headquarters will relay those  
8 signals to the actual plants so that they can move  
9 to meet those generation set points.

10 Q. Okay. That makes sense. So you get the  
11 tasking order from the hierarchy and then make it  
12 work.

13 A. Yeah.

14 Q. And this is not a setup question, but it  
15 may seem like that. When you do all your modeling  
16 for what you're going to need, I can't imagine you  
17 would have included Southwest Power Pool's  
18 projections. So how do you -- why didn't you build  
19 this -- I mean so you could be dispatching this  
20 site, this plant 5, 10, 20, 30 times more than you  
21 ever planned on because of needs somewhere else  
22 outside of North Dakota.

23 A. It always gets down to what's your  
24 obligation. As a utility we have to meet our  
25 members' obligations. We also have to meet

1 planning reserves for the power pools. Basin has  
2 to have capacity that belongs to us. Either we  
3 build it and own it or we contract for it, and that  
4 basically says this is how much capacity we have to  
5 have to meet our requirements in the event of an  
6 emergency or anything.

7           From there it becomes the energy dispatch.  
8 What's the actual lowest cost for all of the  
9 consumers anywhere? You know, and so Basin is  
10 looking at it and going, I need to have the iron in  
11 the ground to meet my capacity options or  
12 obligations, but it's also -- it gets into what's  
13 that optimal portfolio that you need. You know,  
14 how much baseload if you were to serve it yourself  
15 versus how much baseload is residing in the  
16 Southwest Power Pool, how much intermediate, how  
17 much peaking generation. You don't need, you know,  
18 baseload power the entire year. You know, you need  
19 some magnitude of intermediate, which would be a  
20 combined cycle. You've got your wind generation.  
21 You need peaking generation for peak conditions.

22           You know, and so with Basin as well as all  
23 the other utilities trying to come up with what's  
24 that great optimal portfolio that affects Basin and  
25 its ratepayers the most optimal, and if there is

1 the ability that somebody else's generation is  
2 lower cost on an energy basis and the market will  
3 dispatch, then we'd like to take advantage of that,  
4 and that's where we're participating within the  
5 Southwest Power Pool.

6 But you still have to have that capacity,  
7 you know, and we ultimately could always serve our  
8 own obligations with our own resources and it would  
9 be our own cost. So that's basically your  
10 fallback. It's always going to be that or better.

11 Q. So then when you bid and resource into  
12 Southwest Power Pool, do you set the price to run  
13 so you make sure the members are -- are covered,  
14 their costs?

15 A. We set the price based on the variable  
16 costs, the production costs out of these  
17 facilities. Typically our members will pay the  
18 fixed cost, you know, they'll actually hold the  
19 resources to meet our obligations, and then we  
20 offer in the production costs into the market for  
21 dispatch so that we will pay that, you know, for  
22 our cost and get paid for it or we'll buy it off  
23 the market at something less than that.

24 Q. So that's your protection then, if you  
25 will?

1           A.     Yes.

2           Q.     Okay.  You know, I kind of had to -- I  
3     leaned over to Commissioner Fedorchak and I just  
4     kind of whispered about, So I wonder why they're  
5     not building more combined cycle.  And she's like,  
6     Can't you see?  They're doing simple cycle with  
7     wind, and it was like an ah-hah moment.

8                     So is that the plan here that rather than  
9     build a baseload combined cycle, we're going to  
10    pair up wind and simple-cycle combustion to meet  
11    your needs?  Is that where Basin is going?

12          A.     We have done that for a little bit here.  
13    The wind generation, we were able to contract for  
14    almost 700 additional megawatts of wind generation  
15    to be online here by the end of 2016.  Those prices  
16    were very favorable.  They are fixed contracts for  
17    the next 25, 30 years.

18                    When I look at current forecasts for  
19    natural gas prices, low cases, high cases, I mean  
20    it just seems to make economic sense for Basin and  
21    its members to try to lock into these extremely low  
22    wind prices and then back it up with the peaking  
23    generation.

24                    I think at some point here Basin will  
25    probably need some sort of combined-cycle facility,

1 you know, some more energy resource, but it could  
2 be five or ten years from now. You know, it gets  
3 into, you know, when do you stage it in.

4 Q. When you pair up the simple cycle with  
5 wind, do you consider that a baseload asset?

6 A. It could be if your gas -- your peaking  
7 unit is truly regulated around the wind, but the  
8 wind will be offered into the market. It is a  
9 must-take resource. There might be some small  
10 dispatch capability with some of the new wind  
11 projects, but ultimately SPP as the dispatch -- or  
12 of the footprint will determine what peaking  
13 generation or other generation needs to come in and  
14 help follow the wind. You know, there's a fair  
15 amount of hydro in this area, you know, in North  
16 Dakota and South Dakota, and those hydro facilities  
17 tend to regulate around those bigger swings. It's  
18 got a better capability of moving faster.

19 So, you know, it comes as this whole --  
20 the whole utility industry and participating in the  
21 Southwest Power Pool trying to optimize everybody's  
22 system instead of doing it on a utility-by-utility  
23 basis.

24 Q. But that gives you the market that will  
25 always be there for your wind?

1           A.    Yes.

2           Q.    What is the planning reserve that you have  
3 now and what will you have to have when you join  
4 Southwest Power Pool?

5           A.    It will be about the same.

6           Q.    What is that number?

7           A.    You know, right now there isn't really a  
8 requirement specifically for what our area is, and  
9 we plan in that 12 to 15 percent, and SPPs, again,  
10 they're about 13 and a half percent right now.  
11 They are reevaluating, is it going to maintain that  
12 13 and a half or are they going to modify it.

13          Q.    They're trying to lower it so they can  
14 compete with MISO?

15          A.    I think so.

16          Q.    The -- what do you mean by market  
17 conditions as far as determining the run? Is that  
18 the discussion we had about pricing?

19          A.    Yes. In the -- when SPP evaluates their  
20 integrated marketplace, their energy market, they  
21 look at local transmission constraints,  
22 everything -- what resources are being offered in,  
23 what's the production costs, the costs that are  
24 being offered in, and they try to dispatch the  
25 lowest-cost resources first and so there's a stack

1 that's built on the resources. And unless there's  
2 local area constraints that would drive a specific  
3 unit to operate, you know, it will always be that  
4 lowest-cost resource to meet the whole SPP  
5 footprint.

6 Q. Okay. And then the last question. The --  
7 the power purchase agreements you talked about for  
8 the wind farms, are those wind farms already  
9 constructed?

10 A. No, they are not. Some of them -- I'm not  
11 sure if any of them have actually started  
12 construction right now. I anticipate they will --  
13 several of them will start construction this  
14 summer. I believe some may have been in front of  
15 the Public Service Commission for those that are in  
16 North Dakota.

17 Q. That was the -- so what certainty do you  
18 have that they're going to be built?

19 A. Right now they've got a contract that says  
20 that they will, and if they don't, there's  
21 liquidated damages for them.

22 COMMISSIONER KALK: Similar to what  
23 happened over in the Merricourt Wind Farm probably.  
24 Okay. Thank you.

25 JUDGE MANN: Commissioner Fedorchak.



1 want to have like what, 90 percent of your own or  
2 something?

3 A. Not necessarily a formula. I mean you  
4 look at the economics and based on the uncertainty  
5 with the load growth, you know, as we continue to  
6 look at this newest load forecast and with the  
7 lower oil prices and stuff, you know, we're looking  
8 at how much do you want to actually construct  
9 versus how much do you want to go out and buy. You  
10 know, what exposure do you want to put onto your  
11 members.

12 Q. Okay. Do you have the application? I  
13 think you do.

14 A. Right here.

15 Q. There's a few -- I always like to analyze  
16 the charts you provide. I'm a visual.

17 A. Yes.

18 Q. 1-34 in the first section. Okay. Just  
19 briefly, that chart shows me you'd peak just about  
20 the exact same in the summer and winter. Is that a  
21 correct analysis?

22 A. We have some times here. You know, each  
23 summer, each winter we keep surpassing depending on  
24 conditions, you know, if it's a really hot summer,  
25 really cold winter, but yes.

1 Q. And is this for your whole territory?

2 A. Yes.

3 Q. Nine states? Would this look different if  
4 it was just North Dakota?

5 A. I think North Dakota is probably more of a  
6 winter peaking, but, again, you're still going to  
7 see kind of a double peak. It may not be as high  
8 in the summer.

9 Q. Tell me how does the -- I had asked this  
10 question to Josh, but how does the energy industry  
11 affect this peak? Does it soften it so there's  
12 less of a swing because it's a steady load and it's  
13 such a huge part of your load?

14 A. The energy industry here in western North  
15 Dakota is more of an around-the-clock operation.  
16 It does bring additional baseload generation, but  
17 I've commented in the past, you know, it's always  
18 a -- you know, what's that optimal portfolio? You  
19 know, Basin has got, as I've said, 55 percent of  
20 our generation capacity is baseload facilities  
21 today. And so you're trying to figure out how much  
22 baseload, how much intermediate say to be online  
23 during the 8 a.m. to 8 p.m. time period, you know,  
24 during the daytime hours, and how much do you need  
25 during those peak conditions when your system is

1 absolutely peaking.

2           And so you're trying to come up with  
3 blocks of pieces that optimally -- you know, which  
4 resources -- the peaking units, you know, they  
5 optimally run during those peak conditions for  
6 shorter run times.

7           Q.    So what's driving that with the energy  
8 load so consistent? What's driving the peak? Just  
9 everything else on top of it?

10          A.    Yeah. I mean, you know, we've got --  
11 there's a fair amount of residential uses, and when  
12 you're awake, you have lights on. When you're  
13 awake, you do your laundry, you know. You've  
14 got -- you know, oil industry, you know, yeah, may  
15 be running around the clock, but there are so many  
16 other businesses, you know, that are only on --  
17 operating during the day.

18          Q.    Right. And then are your coal units  
19 running at capacity?

20          A.    They typically do run, you know, at their  
21 capability. Sometimes they do get back down at  
22 nighttime during off-peak hours when loads are  
23 lower, depending on weather conditions and stuff  
24 like that.

25          Q.    And have you had to pretty much rely on

1 that capacity to meet your demand out west? You  
2 haven't backed it off a lot, I'm assuming, for wind  
3 or other resources that have displaced it?

4 A. Typically not. I'm not part of our  
5 marketing group that follows all that. I deal with  
6 more long-term stuff. There's been some time --  
7 you know, we do operate a joint system with Western  
8 Area Power Administration. You know, so if they've  
9 got excess water, sometimes they'll run, they'll  
10 back down our coal resources. You know, we try to  
11 optimize within the two utilities, Western and  
12 Basin Electric, you know, what's the most optimal  
13 resource to run, because they do have to run that  
14 water through their hydro facilities.

15 Q. Mm-hmm.

16 A. You know, and if you've got a lot of wind  
17 going on, sometimes it could happen, but a lot of  
18 times that's during low-load conditions, so at  
19 night when it's not super cold out.

20 Q. Mm-hmm. Commissioner Kalk talked a bit  
21 about this, the kind of changing approach to  
22 generation resources. It seems like a lot of  
23 companies, yours, other investor-owned utilities  
24 that we're dealing with have invested in peakers in  
25 wind sort of as an approach right now because they

1 can't really do anything else with the uncertainty  
2 with all the environmental regulations. But I'm  
3 sort of wondering and witnessing if this isn't  
4 actually working better maybe than people thought  
5 and that this approach is going to be the new norm  
6 where it is wind with peakers or solar with  
7 peakers. How does that meet or not meet your peak  
8 demand? How does wind with peakers address that or  
9 what are the -- how does it fail to do that?

10 A. Well, you know, one thing is I think, you  
11 know, over the last -- I mean you can go back  
12 50 years, 70 years, you know, the utility industry  
13 and how has planning for resources changed, you  
14 know, now versus 30, 50 years ago. You know,  
15 you've got more sophisticated tools, you've got  
16 more information readily available with market  
17 conditions and stuff like that that you can  
18 evaluate easier and probably more accurately as far  
19 as what makes economic sense for you as a utility  
20 and your ratepayers, our members.

21 You know, historically I -- you know, I  
22 wasn't part of when they justified all the coal  
23 plants back in the '70s and '80s, you know, I  
24 wasn't around then. But, you know, you looked at  
25 the cost of those facilities and it just made

1 sense. You had such low-cost facilities, you know,  
2 around the clock that that's what you built.

3 Now you're looking, Well, okay, I only  
4 need something on peak or I only need it during  
5 this time of the year, you know, and there's other  
6 opportunities that are there. And I think with the  
7 better tools that the planners have have allowed  
8 for a better utilization and planning for  
9 generation portfolios.

10 Q. But are there any technical shortcomings  
11 of the peakers with wind to meet sort of your  
12 need -- needs from a technical standpoint?

13 A. You know, I think you're always going to  
14 have to monitor the transmission grid reliability,  
15 you know, as far as you've got wind generation or  
16 you've got solar generation. You know, it's an  
17 intermittent resource. It's only there when the  
18 wind is blowing or when the sun is shining, and in  
19 an instant that wind stops or the clouds cover the  
20 sun, you know, you've got changes. Do you have  
21 other resources that can respond to it? Is your  
22 grid capable of seeing those dramatic swings?

23 When you've got a pocket of wind  
24 generation or solar, maybe you can deal with 50 or  
25 a hundred megawatts, but if you've got thousands of

1 megawatts in a single area that just fall off in an  
2 instant, you've got to have something to respond.

3 Q. Okay. Back to the charts. Just a couple.  
4 On page 1-50, you say on the second paragraph up  
5 there, Basin Electric would need some portion of  
6 local generation 2016 to help with transmission  
7 reliability issues until the transmission lines are  
8 completed.

9 So if that transmission line would be  
10 completed now, would we not need this?

11 A. Basin Electric would still need additional  
12 peaking generation. Would we have looked at other  
13 site options? Possibly. This just was a prime  
14 location. You know, we had the existing facilities  
15 there. It provides additional generation in the  
16 event of the line not getting built right away as  
17 well as lines being out of service.

18 Q. Okay. In that chart on that page there's  
19 that big block of red baseload that it shows coming  
20 online maybe in 20 -- halfway through 2017. What  
21 is -- what is that? I haven't really heard you  
22 guys talk a lot about baseload additions.

23 A. What this was was at the time we were  
24 making the decision identifying the need for  
25 Pioneer, Lonesome Creek Phase III, we also

1 identified the need for additional power purchases.  
2 And so this just represented some power purchase  
3 agreements that are a baseload product that we  
4 are --

5 Q. I see.

6 A. -- entering into just for a number of  
7 years.

8 Q. Okay. And then on the top of the next  
9 page, you've talked about this a little bit, but  
10 2017 you have some demand coming on that you don't  
11 have a -- you don't have a real definite plan for  
12 meeting right now. I think I heard you say that --  
13 to Victor that the sixth unit here might meet some  
14 of that. Do you have other plans or are you just  
15 kind of holding out for the next 6 to 12 months to  
16 see how --

17 A. You know, when these were --

18 Q. -- that's developed?

19 A. -- created, you know, this was a year  
20 ago -- you know, when we were going through all  
21 this, this was based on the 2014 load forecast  
22 which was completed in the spring of 2014. We have  
23 completed a new 2015 load forecast evaluating where  
24 are our surplus deficits in the '16, '17, '18 time  
25 period. Wanted to hold off on those commitments

1 for another forecast, see what's going on with load  
2 growth and everything.

3 And so that sixth unit is one option, you  
4 know, very low-cost option for Basin Electric. We  
5 are continuing to evaluate other options,  
6 opportunities that may be there with Basin entering  
7 the Southwest Power Pool.

8 Q. Okay. Does this chart look significantly  
9 different now then, a year later?

10 A. Not significantly. You know, I mean we're  
11 going to be short in that '17 to '19 time period.  
12 The magnitudes change a little bit. With us  
13 joining the Southwest Power Pool, there's a number  
14 of things going on with some of the neighboring  
15 IOUs that we're trying to work through as far as,  
16 you know, where is that load going to be. Is it  
17 going to be sources off of SPP facilities, is it  
18 going to be sources off of MISO facilities? So it  
19 may change a little bit, but that's where we're  
20 just constantly reviewing this and trying to make  
21 decisions at the right time.

22 Q. Mm-hmm. And then on page 1-53, there's a  
23 paragraph under baseload capacity that kind of  
24 intrigued me. The very last sentence, While  
25 baseload capacity units are being contemplated in

1 the resource planning, because of the locality of  
2 the load and the timing required for the generation  
3 to be operational, baseload would not meet your  
4 immediate need.

5 So if I'm reading between the lines there,  
6 you needed this more quickly than what baseload  
7 could deliver, so that's why you picked this  
8 resource?

9 A. Yeah. Today if we were to build a new  
10 baseload coal plant, you know, throw it out there,  
11 if you could actually permit it and do everything,  
12 you know, you're talking eight, ten years before  
13 that unit could actually be operational. We needed  
14 something earlier than that. You could go and buy  
15 some baseload capacity from an entity that's got  
16 surpluses. You could probably build a  
17 combined-cycle facility maybe in four to five  
18 years. The peaking generation, you know, is in  
19 that two to three years, depending on all the  
20 permitting requirements of the units and stuff like  
21 that.

22 And so with the load growth growing as  
23 fast as it has over the last number of years, we've  
24 had to respond with peaking units, but again, Basin  
25 needed some peaking generation within our portfolio

1        anyway.

2            Q.        Well, and that's why this is a little  
3        confusing because baseload units serve a different  
4        function.    So if you really need baseload units,  
5        then how is that your -- you know, you're saying  
6        you need peaking units, but then if you had the  
7        time, you'd rather have a baseload unit.

8            A.        You know, when you get out ten years from  
9        now, you know, you've grown into so much that it  
10       might be nice to have baseload.    And so Basin is  
11       always evaluating what's the right timing for  
12       resources.    You know, if we need peaking, if we  
13       need combined cycle or we need baseload, we have  
14       the opportunities to change things by going out and  
15       doing power purchase agreements.    You know, you buy  
16       something for a couple years, it allows you to  
17       build into something bigger or a combined cycle,  
18       you know, so that you create a cliff event, a  
19       change in your resource development versus just  
20       building right away.    You know, that's where we go  
21       when we evaluate power purchase options, you know,  
22       so that you can go and do some of those other type  
23       of resources.

24            Q.        In this environment I'm beginning to  
25        wonder when it's ever going to seem right to build

1 baseload, though, because what you just described  
2 is not going to change.

3 A. I mean it gets down to the permitting, you  
4 know, if you can ever actually go forward and  
5 actual permit a facility. I think you have to look  
6 at, you know, does it make sense and then is the  
7 permitting world and all that ever going to change  
8 to actually allow you to do it.

9 Q. Okay. Just a couple other ones -- maybe  
10 just one, actually. Tell me, if your company were  
11 hearing from some of the other investor-owned in  
12 this area that are looking at solar and thinking  
13 that it's going to make some sense in the not too  
14 distant future or may, are you guys looking at  
15 solar resources?

16 A. Basin has looked at it over the last  
17 couple of years and does it make sense for Basin to  
18 build something. I don't think it does. We have  
19 looked into the option of maybe buying something  
20 that somebody else develops. There are better  
21 locations within the United States for solar  
22 generation. I think we will always evaluate does  
23 it make economic sense for Basin and its members.

24 I do believe some of our member  
25 cooperatives, some of their customers are looking

1 at smaller solar projects, you know, less than 150  
2 kW, and those are allowed to interconnect onto our  
3 system and Basin buys the output of some of those,  
4 but they're real small distributed solar. Right  
5 now Basin doesn't have any plans for utility-scale  
6 solar but always evaluating it.

7 COMMISSIONER FEDORCHAK: Okay. That's it.  
8 Thanks, Becky.

9 JUDGE MANN: Commissioner Christmann.

10 **EXAMINATION**

11 **BY COMMISSIONER CHRISTMANN:**

12 Q. Is there a difference between different  
13 people within the industry and how you classify  
14 baseload -- or combined-cycle gas power? Because I  
15 know -- maybe they were speaking incorrectly, but I  
16 know I've heard some people reference baseload  
17 combined-cycle plants, but both you and I think  
18 Josh mentioned it, too, and referring to it as  
19 intermediate.

20 A. You know, me personally, I'd probably view  
21 it more intermediate. You could build a  
22 combined-cycle facility and run it at baseload if  
23 you say 80 percent. You know, that's probably  
24 running it really hard. When you talk about  
25 baseload generation, the real only baseload

1 generation that you could probably build today is  
2 probably combined cycle. It's not going to be your  
3 baseload like a 90 percent operation of a coal  
4 plant, you know, but you could probably still run  
5 it, you know, harder. You know --

6 Q. When you --

7 A. -- when you talk baseload.

8 Q. When you say run it hard, do you mean  
9 insofar --

10 A. Longer.

11 Q. -- as it's costly to run it that much or  
12 that the plant isn't physically built to run that  
13 constant?

14 A. And I guess, you know, maybe Josh could  
15 help a little bit here. I don't know if he can. I  
16 don't deal with the actual -- the design of the  
17 combined cycle and facilities and stuff like that  
18 and what the maintenance takes. You know, it is  
19 more costly usually to run a gas unit than it is a  
20 coal unit. You know, it gets into the cost. But  
21 as far as the mechanical, you know, the actual wear  
22 and tear on the unit, I can't comment on that.

23 Q. Would -- would the cost of running a  
24 combined cycle be closer to a coal baseload or  
25 closer to these simple-cycle peakers?

1           A.     The cost will be lower than the peakers.  
2     I mean it's got a more efficient heat rate coming  
3     from a combined-cycle facility.  But, again, it all  
4     depends on what gas price you can get it at.  You  
5     know, is it a low cost?  Is it low for that whole  
6     time period?  You know, are you buying high gas?  
7     You know, the gas market ends up affecting those  
8     costs of a combined cycle significantly.

9           Q.     Okay.  There's always a risk when you're  
10    nice enough to give us ballpark numbers that then  
11    someone wants to drill down just a little bit  
12    deeper, but I won't go too far but clarifying some  
13    of the numbers you gave Commissioner Kalk.  I just  
14    want to make sure I have it right.

15                    You said Basin's overall capacity is about  
16    5500?

17           A.     Roughly.

18           Q.     Then -- and coal is about 55 percent, so  
19    3,000?

20           A.     Yeah.  That's a good round number, yeah.

21           Q.     Okay.  This is where I got kind of mixed  
22    up.  With the wind and the gas, I wrote down both  
23    at around 700, but like with the wind I think you  
24    said it would be up to about 1400 by the end of  
25    2016 and with gas that's 700.  Was that prior to

1 any of the Pioneer and --

2 A. You know what, the 700 on the gas may have  
3 been a number from a couple years ago. We could be  
4 closer to 9 now and then another 200, and so -- 2  
5 to 3 hundred with Phase III. The 700 was probably  
6 a low number now that I think about it. So I bet  
7 you we're in that 900 going closer to 11.

8 Q. Okay. And 700 going up to 1400 on the  
9 wind?

10 A. 14, yep.

11 Q. So on the overall capacity, were you  
12 talking about now or on the -- you know, with 700  
13 and 900 or the 1400 and 1100?

14 A. You know, I could go and pull up our  
15 website and I could tell you exactly what it was  
16 because we do have it on our website, you know, so  
17 that's where I'm using ballpark numbers. You know,  
18 the 5500 is now. You know, as we build the Pioneer  
19 and Lonesome Creek Phase III, as the additional  
20 wind comes online, this number is going to  
21 increase. I think it could get over 6,000,  
22 ballpark number again.

23 Q. The one thing where -- maybe I'm just  
24 missing something. So using kind of current  
25 numbers, using 700 of wind, 900 of gas is 16, 3,000

1 of coal is 46. What's that other gap, that other  
2 900 or so?

3 A. We've got several power purchase  
4 agreements.

5 Q. Okay.

6 A. There's a small amount of nuclear.

7 Q. Okay.

8 A. There's --

9 Q. I remember seeing that, the power purchase  
10 agreements. So -- and the wind is all in the last  
11 12 or so years. The peaking plants -- were there  
12 any peaking plants 15, 20 years ago?

13 A. Basin had one oil-fired facility down at  
14 Spirit Mound Station down in South Dakota outside  
15 of Yankton, South Dakota. It's about a 100  
16 megawatt oil-fired facility. That would be the  
17 only peaking unit that Basin had prior to about  
18 2002 or so.

19 Q. So basically your wind and peaking  
20 additions kind of correlate?

21 A. Yeah.

22 Q. When you said that you were able to get  
23 very good purchase agreements on wind power, what's  
24 about the cost per megawatt hour?

25 A. I'm going to say in the low to mid-\$20 per

1 megawatt hour, some of them fixed, some of them  
2 with low escalation rates. Hard to beat those.

3 Q. Yeah.

4 COMMISSIONER KALK: Surprised you told us.

5 Q. (COMMISSIONER CHRISTMANN CONTINUING) And  
6 do you have a ballpark on coal --

7 A. I don't right now.

8 Q. -- costs?

9 Do you have a ballpark on what your -- the  
10 first phase of Lonesome Creek that's been running  
11 for a year and a half? What kind of cost do these  
12 plants end up being?

13 A. Well, it gets into what's the load factor  
14 operation. Do you want to include all the capital  
15 costs? If you just want to look at the production  
16 cost of those facilities, you know, just production  
17 at, say, \$4 gas, you're probably talking \$40,  
18 ballpark again, you know, maybe a little more for  
19 just the production. That would be \$40 a megawatt  
20 hour. But, again, that does not include any of the  
21 capital infrastructure to actually build the  
22 facility.

23 And that's where it gets really difficult  
24 to talk about what is the cost on a  
25 dollars-per-megawatt hour because those costs get

1 spread over. They get spread over a 5 percent  
2 capacity factor, 20 percent capacity factor. That  
3 significantly changes that.

4 Q. But you must calculate something -- those  
5 numbers out and come up with an estimate for a 20-  
6 or 30-year period --

7 A. Oh, yes, we do. Yes.

8 Q. -- in order to figure out how this all  
9 correlates because basically this power that you're  
10 producing with wind and -- and peaking plants is  
11 going to have to average out and equal what you  
12 could get baseload power for; correct?

13 A. It should come comparable and, you know,  
14 hopefully this actually was a better decision for  
15 us to go with the wind and the gas route than a  
16 baseload. You know, that's the decision that we  
17 made, you know, because that was the more economic  
18 decision for us.

19 Q. And so if -- with your expertise in  
20 calculating these things, I get that you work for  
21 Basin Electric and your goal should be Basin  
22 Electric's costs, but if you were working for the  
23 taxpayers, would you then say that it's fair to not  
24 only figure in the costs that are necessary for the  
25 generation company to produce the power, but also

1 is part of the reason why you get the two cents  
2 wind power is because the companies that you buy it  
3 from get tax credits and subsidies to provide that?  
4 So from the taxpayers' perspective would it be fair  
5 to add in those costs to what this all ends up  
6 costing because they end up needing to pay for  
7 that?

8 A. You could look at that. You know, right  
9 now Basin has just looked at, you know, what are  
10 our costs to our members, you know, our direct  
11 costs, you know, if we go with this alternative  
12 versus something else. We're trying to keep our  
13 rate that we charge to our members as low as we  
14 can.

15 Q. And I certainly respect that. You look  
16 out for rate payers. We have to look out for  
17 citizens.

18 A. Yes.

19 COMMISSIONER CHRISTMANN: Okay. That's  
20 all my questions. Thank you.

21 JUDGE MANN: Ms. Lambert, any follow-up?

22 MS. LAMBERT: No follow-up.

23 JUDGE MANN: Okay. Mr. Schmidt.

24 MR. SCHMIDT: Just one thing I want to  
25 clear up for the record.

**FURTHER CROSS-EXAMINATION**

1  
2 **BY MR. SCHMIDT:**

3 Q. During your testimony you said that Unit 6  
4 would be the lowest-cost option; is that correct?

5 A. It would probably be one of our  
6 lowest-cost options as compared to another peaking  
7 unit that's sited somewhere else that's probably  
8 not a brown field site, you know, because we've  
9 already got a lot of the infrastructure in place.

10 Q. So with that comment you're not saying  
11 that the construction of Unit 6 is cheaper than the  
12 construction of Unit 4 or Unit 5.

13 A. The construct is probably not. I'm just  
14 saying that this site already has the gas line  
15 infrastructure, it has the transmission facility,  
16 the interconnect facilities in place, you know,  
17 that there's no additional need there.

18 Q. So adding Unit 6 is just a cheaper method  
19 than building on a different site; is that what you  
20 were saying?

21 A. Yes.

22 MR. SCHMIDT: Okay. That's all I have.  
23 Thank you.

24 JUDGE MANN: Mr. Schock?

25 MR. SCHOCK: No further questions.

1 JUDGE MANN: Okay. Commissioner Kalk.

2 COMMISSIONER KALK: Just one follow-up.

3 **FURTHER EXAMINATION**

4 **BY COMMISSIONER KALK:**

5 Q. Becky, when you said that combined cycle  
6 would take longer to build and permit than a simple  
7 cycle, why? To me it's the same process.

8 A. I guess it just depends. And I think the  
9 construction time might be a little longer as well.

10 Q. Okay.

11 A. Josh and Cris might be able to answer  
12 some --

13 Q. But it's not the permitting. It's just  
14 maybe a bigger, different type of construction time  
15 frame?

16 A. Yeah. Probably.

17 Q. And then just another follow-up on the --  
18 and I don't disagree with what my colleague was  
19 saying about the national trend to make wind easier  
20 to build with tax breaks and those things, but  
21 wouldn't the same thing apply to tax breaks for  
22 coal or incentives for natural gas or incentives  
23 for transmission lines?

24 A. Yeah. I mean if the end-use consumers,  
25 you know, the citizens of the United States are

1 going to have to pay for something, you know, I  
2 mean you'd want to weigh it all in. And Basin has  
3 just always taken the position, you know, that we  
4 will look at what Basin's rate to our members are.

5 COMMISSIONER KALK: Sure. Thank you.

6 JUDGE MANN: Commissioner Fedorchak?

7 COMMISSIONER FEDORCHAK: I don't have any  
8 other questions.

9 JUDGE MANN: Commissioner Christmann?

10 COMMISSIONER CHRISTMANN: No questions.

11 JUDGE MANN: Okay. Anything further,  
12 Ms. Lambert?

13 MS. LAMBERT: No, Your Honor.

14 JUDGE MANN: Thank you, Ms. Kern. You can  
15 step down.

16 We'll take a break, 10, 15 minutes.

17 (Recessed at 10:41 a.m. and reconvened at  
18 10:54 a.m.)

19 JUDGE MANN: Okay. We're back on the  
20 record.

21 Ms. Lambert, you can call your next  
22 witness.

23 MS. LAMBERT: We'd like to call Mr. Cris  
24 Miller, please.

25 JUDGE MANN: Mr. Miller, before you

1 testify, I'm required to give you the oath, advise  
2 you of the penalty for perjury in North Dakota. It  
3 is a Class C felony, punishable by a maximum fine  
4 of \$10,000, a maximum five years' imprisonment or  
5 both.

6 (Witness sworn.)

7 JUDGE MANN: Okay. Go ahead.

8 MS. LAMBERT: Thank you, Your Honor.

9 **CRIS MILLER,**

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

12 **DIRECT EXAMINATION**

13 **BY MS. LAMBERT:**

14 Q. Before we begin, Mr. Miller, is your  
15 prefiled testimony labeled as Exhibit 3 correct and  
16 true to the best of your knowledge?

17 A. Yes, it is.

18 Q. Thank you. Would you please -- would you  
19 please state your name, business address and  
20 occupation.

21 A. My name is Cris Miller. My business  
22 address is 1717 East Interstate Avenue in Bismarck,  
23 North Dakota. My title is senior environmental  
24 project administrator.

25 Q. And please state your employment history

1 and educational background.

2 A. I've been employed with Basin Electric  
3 since 1991. I graduated from North Dakota State  
4 University in 1982 with a bachelor of science in  
5 civil engineering.

6 Q. And what have been your responsibilities  
7 for the Lonesome Creek Station Phase III project?

8 A. My overall responsibility is to develop,  
9 coordinate and plan all the environmental analyses  
10 to support all the permitting efforts, whether it's  
11 on local, county or state and federal levels.

12 Q. And would you please describe the land use  
13 of the proposed site.

14 A. The existing land parcel that Basin  
15 Electric owns -- as Mr. Rossow described, we have  
16 160 acres and it was previously all completely  
17 farmed. And with our construction on Lonesome  
18 Creek Station Phase I and II, we have basically  
19 removed approximately ten acres -- or I'll back up.  
20 Seven acres of land is within the fence of Phase I  
21 and II.

22 Certainly during the construction activity  
23 we have -- have soil disturbance outside of that  
24 seven acres, but our long-range plan is to, after  
25 construction is done, reclaim that and return it

1 back to agricultural activity.

2 Q. Was there a federal nexus for the project  
3 that --

4 A. For --

5 Q. -- that required --

6 A. For --

7 Q. Go ahead.

8 A. Excuse me.

9 -- Lonesome Creek Station Phase III, there  
10 was no federal nexus.

11 Q. Thank you. Would you please give an  
12 overview of the land use in the surrounding areas.

13 A. Certainly. If we look to -- I believe  
14 it's Exhibit 7 -- excuse me, Exhibit 8, which is  
15 the poster over here. So for orientation we're --  
16 it's an aerial photograph of -- basically it's  
17 viewing to the southeast. 140th Avenue is the  
18 north-south county road. Here is Lonesome Creek  
19 Station. Here is our half-mile square 160 acres  
20 that we own.

21 Immediately north of our project there's  
22 an existing oil well. To the northwest of our  
23 project along U.S. Highway 85, this area is -- is  
24 certainly being converted from previous  
25 agricultural use to a commercial/industrial zone

1 that runs -- it's continually growing in response  
2 to the Bakken support. But there is an asphalt  
3 batch plant. There are workforce housing systems.  
4 There is a Bakken Lodge, Bakken Cafe, commercial  
5 truck stop/fueling area throughout this area.  
6 There's also -- just off the picture there's some  
7 additional oil wells. So we're on a fringe of  
8 commercial/industrial.

9 This tree belt over here to the east,  
10 that's the nearest local residence. That's back in  
11 the trees, which is just off of Highway 85, about a  
12 half -- three-quarters of a mile east of our  
13 project.

14 Q. Does the proposed site contain any  
15 avoidance or exclusion areas?

16 A. No, it does not.

17 Q. Has Basin Electric received all necessary  
18 permits for the proposed project?

19 A. From a permitting standpoint, the one that  
20 we've actually acquired is the local Alex Township.  
21 They gave us their approval back in February of  
22 this year. We are -- currently have an application  
23 for conditional use into the McKenzie County  
24 Planning & Zoning Department. It's under  
25 evaluation and analysis. We would anticipate that

1 that would be on their April agenda.

2 The permit to construct application has  
3 been submitted to the North Dakota Department of  
4 Health for -- on the air side. That current status  
5 is -- the draft of the permit is being in its final  
6 analysis. We would anticipate that that would be  
7 out for the public comment period here in early  
8 April.

9 Q. Is the timeline provided in the permit to  
10 construct consistent with the timeline in the  
11 application?

12 A. If you're referring to the timeline of the  
13 permit to construct for the North Dakota Department  
14 of Health and the PSC, yes, it is. Both projects  
15 have the start of construction for Units 4 and 5 in  
16 the May of 2015 and then the start of construction  
17 for that sixth unit in 2016.

18 Q. Were there any studies conducted to assess  
19 the noise levels that can be expected from the  
20 operation of the project?

21 A. Yes, there was. The -- we had a  
22 consultant, Burns & McDonnell, perform a noise  
23 analysis. If this body recalls, we did the same  
24 noise analysis back when we went through state  
25 siting for Phase II. That same noise survey team

1 was -- went up and -- at our Pioneer Station and  
2 did an actual noise assessment to verify that their  
3 modeling is consistent with -- with -- well,  
4 consistent modeling and it was determined as so.

5 So for Lonesome Creek Station Phase III, a  
6 modeling analysis was performed and the results  
7 were included in our application. The results for  
8 operating of all six units are below the EPA  
9 guideline of 55 dBA by a considerable amount.

10 Q. Are there any anticipated impacts on the  
11 surface drainage patterns or groundwater flow  
12 patterns on the plant site?

13 A. We will -- we -- the existing facility has  
14 a storm water collection pond that collects the  
15 storm water that falls within our fence line and  
16 from the boiler -- or blowdown from the three units  
17 from the air inlet cooling system. Because of the  
18 additional land area that Basin will incorporate,  
19 we will be expanding the size of our storm water  
20 collection pond to accommodate that additional  
21 contributing area.

22 The discharge from that pond will flow  
23 down the same drainage pattern that heads to the  
24 west of our plant site, so we're not diverting any  
25 water from the watershed that was pre project.

1 Q. Are there any other environmental issues  
2 with the proposed project that you'd like to  
3 mention?

4 A. Not other than what's been already  
5 addressed through our permit application.

6 MS. LAMBERT: Thank you. No further  
7 questions, Your Honor.

8 JUDGE MANN: Mr. Schmidt.

9 MR. SCHMIDT: Thank you, Your Honor.

10 **CROSS-EXAMINATION**

11 **BY MR. SCHMIDT:**

12 Q. The application says that the nearest  
13 landowner is about -- less than a mile away, I  
14 believe; is that correct?

15 A. That is correct.

16 Q. Are you aware of any inhabited buildings  
17 that have been constructed, such as man camps or  
18 temporary housing, since this application was  
19 submitted?

20 A. From -- from the -- what I previously  
21 discussed on the aerial map, I believe there is  
22 some more housing developed in this workforce  
23 housing. This picture was taken in the fall -- or  
24 late 2014, so there are some additional facilities  
25 in this development. But as far as around the

1 perimeter, I do not believe there is any additional  
2 houses or residences. We do know that on the very  
3 southeast corner of our site there's an oil pad,  
4 basically right behind my laser. That oil  
5 development has also increased in the area.

6 Q. Has Basin heard any complaints from any of  
7 these nearby landowners?

8 A. No, we have not.

9 Q. Is the construction of Phase III  
10 anticipated to have any adverse impacts on these  
11 landowners?

12 A. We don't believe so. Certainly it's a  
13 very busy area. Mr. Rossow said, you know, our  
14 peak workforce is around 120. They're coming off  
15 of major Highway 2 -- excuse me, Highway 85. It's  
16 a four lane, so the transportation system I don't  
17 believe will be affected by the transportation of  
18 our -- of our equipment and et cetera.

19 Certainly during construction there is  
20 additional equipment being operated. There is the  
21 construction activity. We only operate -- or  
22 construct during I'll call it the daylight hours,  
23 we anticipate, so there won't be late-night  
24 activity. So is there -- our activity is present,  
25 but it's not overly reactive to the local

1 population.

2 Q. In the application can I have you turn to  
3 Figure 4-1 and 4-2. It's the two pictures of the  
4 noise maps.

5 A. Okay. Noise is in Appendix C.

6 Q. The maps I'm looking at are on -- if you  
7 go to page 4-21, it's right after that. There's  
8 two maps here, 4-1 and 4-2. I think the maps may  
9 also be in Appendix C as well, but --

10 A. Okay.

11 Q. Now, there's two separate maps here, 4-1,  
12 which says total facility  $L_{eq}$ , and then figure 4-2,  
13 which says total facility  $L_{dn}$ . And it looks like  
14 the decibel levels are different on each map. Can  
15 you just kind of explain why that is and what --  
16 what each map is referencing?

17 A. Sure. The  $L_{eq}$  is a time-weighted  
18 equivalent from the noise and the  $L_{dn}$  is a day-night  
19 average. And what they'll do is for the nighttime  
20 averages, they add basically a ten-decibel penalty  
21 on to the anticipated noise level and that's why  
22 the  $L_{dn}$  would be a higher value.

23 Q. And on this map I see there's a yellow  
24 circle with an X through it and above it it says  
25 RES-3. Is that where the nearest private residence

1 is located?

2 A. That's correct. The -- the front  
3 labeling -- our methodology was to go commercial,  
4 you know, so receptors one through four, and then  
5 what we would think would be a residential. And we  
6 had five residences -- or six residences identified  
7 in our site map.

8 Q. And the decibel of -- it looks like it  
9 will be between -- right around 45 is what they  
10 could expect at the nearest landowner site?

11 A. That is correct. We -- actual numbers is  
12 just above 45. If I look at the  $L_{dn}$ , it's 44.6 at  
13 the nearest residence.

14 Q. And that's below what industry standards  
15 would be?

16 A. Yeah. There are no local or state noise  
17 levels to -- that are strictly adherent, so we're  
18 just going by the -- in this case the EPA guidance  
19 of 55 dB. So, yes, we are less than the EPA  
20 guideline.

21 Q. And to date with the current station, have  
22 you heard any complaints from that landowner with  
23 regard to noise?

24 A. No, we have not.

25 Q. Okay. Earlier Mr. Rossow talked about the

1 two roads that were going to be built that are  
2 going to connect to -- I think it was 140th Avenue;  
3 is that correct?

4 A. Yes. There's two roads that are going to  
5 connect to the switchyard, but only one road would  
6 be coming off of 140th into that switchyard from  
7 the south.

8 Q. Has Basin obtained or are they in the  
9 process of obtaining the necessary easements for  
10 that approach?

11 A. The road itself is within our own  
12 property, so there's no easement required. But  
13 there is a county road approach permit, which we  
14 have acquired from McKenzie County.

15 Q. Can I get you to turn to Figure 4-3.

16 A. Yes.

17 Q. Okay. On this map the pink areas,  
18 those -- that signifies prime farmland; is that  
19 correct?

20 A. I have the wrong -- I have 4-3 from the  
21 sound, so I've got to turn the page here.

22 Q. Okay. It's right after the page 4-30.

23 A. Okay.

24 Q. So the pink on this map represents the  
25 prime farmland in the area; is that correct?

1           A.     That's correct.

2           Q.     Will the construction of Phase III take  
3 away any of the prime farmland that's located up in  
4 the upper right-hand corner of the energy  
5 conversion facility?

6           A.     The -- during construction that area has  
7 been disturbed, but to facilitate that  
8 construction, that topsoil has been pulled back and  
9 that area right now has been used as kind of a  
10 laydown yard area. And then our final reclamation  
11 project -- process would be to return the contours  
12 back to pre project and then return that topsoil,  
13 and then that area will then be returned back to  
14 our farming lease -- leasor -- lessor for that land  
15 area.

16          Q.     So will the construction of Phase III  
17 result in the loss of any prime farmland?

18          A.     It would be extremely minimal.

19          Q.     Does Basin have a plan in place to prevent  
20 the spread of noxious weeds?

21          A.     Yes, we do. We have -- our plan is to  
22 during construction, you know, while we have the  
23 soil disturbed, whether it's through mechanical  
24 means, you know, mowing and also then through the  
25 use of herbicides.

1           Q.     We covered wildlife.  There was one thing  
2     I was going to ask about wildlife.  The application  
3     did discuss a little bit about this is a corridor  
4     for the whooping crane.

5           A.     That's correct.

6           Q.     Is there a plan in place in case a  
7     whooping crane is found during the construction of  
8     Phase III?

9           A.     During the construction phase, what --  
10    what -- when we went through the federal nexus  
11    process for our Lonesome Creek Phase II, the U.S.  
12    Fish and Wildlife Service recommended that should a  
13    whooping crane be found in the immediate area, that  
14    we would, you know, observe and, I guess, minimize  
15    any possible disturbance.  Well, that's -- the  
16    birds that are flying through are -- they're going  
17    to be flying through.

18                   The other aspect of the U.S. Fish and  
19    Wildlife Service comment was to place bird  
20    diverters on our transmission line between the  
21    facility and the Hay Butte Substation.

22                   MR. SCHMIDT:  I have nothing further.

23                   JUDGE MANN:  Mr. Schock.

24

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**CROSS-EXAMINATION**

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**BY MR. SCHOCK:**

Q. Just kind of going back to the project cost. In the original application it was listed at 99.3 million. Josh and Becky spoke to the additional amount of 49.6 million for Unit 6. Will Basin be submitting an additional application fee amount to the PSC since the application fees are based off of the project cost?

A. We certainly will if directed to do so, I guess. What we would -- we can go about this different ways should we decide to build Unit 6, file the application fee. We can do once -- if we're directed to, we can do it next week.

Q. Sure. Okay. Going back to the noise analysis a little bit, is -- are the models and the assessments done for noise -- for the noise model -- modeling and assessments, are those done based on the time of the year? So is it a summertime estimate or a wintertime estimate? I guess --

A. I'm not the modeling expert, but I believe that ambient temperature and certainly wind speed -- you know, wind comes -- and elevation are some of the physical parameters that come into play

1 in that modeling.

2 Q. The reason for the summer versus winter,  
3 my thought is, I guess, and my own experience, it  
4 seems like things echo farther and louder in the  
5 wintertime when everything is kind of frozen over  
6 and there's a crust of snow or ice on the ground.  
7 And there was no discussion on that in the sound  
8 assessment. I just wasn't sure if that's something  
9 that has been or should be taken into account.

10 A. I would have to go back to the model to  
11 answer that, but if you recall my testimony from --  
12 up at Pioneer when we -- you talk about summertime  
13 activity where we actually went out there and did  
14 the monitoring, we did monitoring at day and at  
15 night, and the nighttime background noise exceeded  
16 things because of the insect noise. So there's a  
17 lot of things that will affect that noise other  
18 than our project itself.

19 MR. SCHOCK: Sure. Sure. I have no  
20 further questions.

21 JUDGE MANN: Commissioner Kalk.

22 COMMISSIONER KALK: Thank you, Your Honor.

23 **EXAMINATION**

24 **BY COMMISSIONER KALK:**

25 Q. Thank you, Cris, for your testimony, and

1 good to see you again this week as well.

2 The -- I'm always curious how the federal  
3 nexus develops or not, and I'm clear why it doesn't  
4 for the Lonesome Creek. But there must have been a  
5 federal nexus when you interconnected; is that  
6 right?

7 A. We're interconnecting with our own  
8 facilities so there is no federal interconnection.  
9 What Ms. Kern described was a generator  
10 interconnect, and that -- and the generator  
11 interconnect is with the IS. Western Area Power  
12 does not take the -- just the act of the generator  
13 interconnect request as a federal nexus that  
14 requires NEPA analysis, but it would be that  
15 transmission interconnect --

16 Q. Okay.

17 A. -- for federal nexus. And in this case  
18 we're connecting to McKenzie Electric's system and  
19 our own system.

20 Q. Okay. The -- it's funny, 2009 we were up  
21 here for a Commission hearing and I asked if they'd  
22 apply -- if the company had taken care of all the  
23 county permits, and the answer was there are no  
24 county permits required. And now we're down to  
25 township permits.

1           A.     The history of McKenzie Electric [sic]  
2     Planning & Zoning, back a few years ago there were  
3     no planning and zoning requirements. Alex Township  
4     is an organized township, and they developed  
5     their -- even though they probably had some on  
6     their books, their -- what do you want to call  
7     it -- the requirements to actually go through the  
8     process probably has changed.

9           So for Phase I we actually did have that  
10    township level. Phase II we actually -- that had  
11    to go through both the township and the county  
12    planning and zoning. The planning and zoning in  
13    McKenzie County -- in fact, there are a couple  
14    ladies here in attendance from the planning and  
15    zoning -- their, I guess, rulemaking and their  
16    requirements are being matured over time, you know,  
17    from going from nothing two, three years ago to  
18    having all this activity, you can imagine how to  
19    implement and to operate a planning and zoning  
20    program has changed, so --

21          Q.     I'm just trying to understand the  
22    interplay between the county and the township.  
23    Does the county -- and I know you can't speak for  
24    them, but just your own opinion. Do they look at  
25    it where they wait for the township to move before

1 they make a decision?

2 A. Yes. The McKenzie County process -- it's  
3 not just that we have to have that township, but  
4 all the other county departments, whether it's  
5 roads, whether it's emergency, whether it's police  
6 and fire, those approvals, so to speak, have to be  
7 acquired prior to actually being applied to the  
8 county for our conditional use permit.

9 So there's been a lot of background work  
10 to get the local entities engaged -- aware of our  
11 project and actually get approval of the project to  
12 even get it on the agenda of the county planning  
13 and zoning department.

14 Q. Okay. Thank you. And just a couple more.  
15 The air permit is from the North Dakota Health  
16 Department, not EPA?

17 A. That's correct.

18 Q. And are they viewing this as one air  
19 permit for the whole -- all six generators?

20 A. What they'll do is they're -- we applied  
21 for a permit to construct, and that permit to  
22 construct is for the Units 4, 5 and 6. And then  
23 after we're in construction -- when construction is  
24 complete, the units are in commercial operating,  
25 then we'll apply for a permit to operate. And at

1 that time all six units will be combined into one  
2 permit.

3 Q. When do you know if it's a health  
4 department permit or an EPA permit? What's the  
5 trigger?

6 A. The -- every state has the ability to have  
7 primacy for permitting, and in North Dakota they  
8 basically have primacy for all of the permit --  
9 Clean Air Act compliance. Certainly, EPA has  
10 regional oversight and we're in Region VIII here in  
11 North Dakota, and they will review and approve and  
12 have the ability to comment on permits that are  
13 issued by the department. They also have, you  
14 know, oversight and -- and -- oh, what do you want  
15 to call it -- feedback from EPA, and if they're not  
16 actually implementing the program as -- as  
17 promulgated on the federal level, you know, EPA has  
18 the ability to step in.

19 Q. And then the last one is the -- how much  
20 do the looming, whatever we think about them, CO<sub>2</sub>  
21 rules and air emissions tie into deciding to build  
22 this type of generation?

23 A. The -- from when we first started Lonesome  
24 Creek Phase I and II and now to III, the actual  
25 Clean Air Act and how they dealt with it with the

1 greenhouse gases has changed. The U.S. Supreme  
2 Court, I believe it's in June of 2014, ruled that  
3 an emission source could not be determined to be a  
4 major source based only on the greenhouse gas. So  
5 unlike the first two phases where we were going  
6 through PSD rulemaking and permitting process, this  
7 Phase III does not require us to go through PSD  
8 because that greenhouse gas now was the only  
9 trigger that -- or only triggered us above the  
10 major -- major threshold. And now with the supreme  
11 court ruling, all the -- the rest of the  
12 pollutants, SO<sub>2</sub> and NO<sub>x</sub>, are below any PSD  
13 threshold, so then we don't have to go through PSD  
14 permitting process, so now we are just a minor  
15 source.

16 Q. And when you say PSC, you don't mean us.  
17 You mean --

18 A. No. PSD.

19 COMMISSIONER KALK: PSD. Okay. Gotcha.  
20 All right. Thank you, Cris.

21 THE WITNESS: Thank you.

22 JUDGE MANN: Commissioner Fedorchak.

23 **EXAMINATION**

24 **BY COMMISSIONER FEDORCHAK:**

25 Q. Hey, Cris, you answered the bulk of my

1 questions already, but a couple to clarify.

2 Under the proposed EPA regulations on CO<sub>2</sub>,  
3 would this be a new source or existing source?

4 A. It would be an existing source.

5 Q. Okay. And you're below the threshold?

6 A. That is correct. Once -- with the  
7 existing source. As Mr. Rossow also explained,  
8 when you were having discussions about whether a  
9 frame or aeroderivative, from a CO<sub>2</sub> permitting  
10 allotted intensity basis, these machines that we're  
11 installing here are as efficient and as low emitter  
12 as you can. In that perspective, we are basically  
13 BACT. Until -- until the industry comes up with  
14 better technology, we are -- we are at the top.

15 Q. All right. Okay. And then on the noise  
16 modeling, I guess I want to just clarify for the  
17 record. I assumed the model was a model that was  
18 an actual on-site test?

19 A. That is correct. Our --

20 Q. Is that true?

21 A. Yes. The actual -- when we do modeling,  
22 it's a computer modeling, but it's the same model  
23 that was used up at Pioneer. So when we went out  
24 in the field and we actually did monitoring  
25 measurements back in August 2014, that's what

1 verified that the modeling was -- was accurate from  
2 that equipment. So it was the same Burns &  
3 McDonnell noise assessment team, so they had great  
4 confidence in their model that what we're modeling  
5 here at Lonesome Creek is very reflective of what  
6 actually does occur.

7 Q. So have you done the same on Lonesome  
8 Creek where you've modeled and then compared to the  
9 actual on the -- on the Phase I and II?

10 A. No, we did not, because one confirmation  
11 of the model is reflective of the equipment.  
12 Remember, Pioneer Phase I and II was the same  
13 equipment, other than the NO<sub>x</sub> reduction, so we had  
14 great confidence in the model.

15 COMMISSIONER FEDORCHAK: Okay. Fair  
16 enough. I think that's all my questions.

17 JUDGE MANN: Commissioner Christmann.

18 **EXAMINATION**

19 **BY COMMISSIONER CHRISTMANN:**

20 Q. Did you say that the department of health  
21 permit will be in a public comment time period  
22 starting soon?

23 A. Yes. It's going through their final draft  
24 process right now, so we anticipate in the next  
25 week to ten days that it should be out and then

1 that initiates the 30-day public comment period.

2 Q. So that gets you into May --

3 A. That's correct.

4 Q. -- by the end of the public comment  
5 period. And then what's their process after the  
6 public comment period? Do they have a hearing like  
7 this or --

8 A. They --

9 Q. Based on your previous experience, and I'm  
10 assuming that you're not seeing any big obstacles  
11 with that, what would you expect their time frame  
12 to be if they -- in that public comment, say, first  
13 week of May?

14 A. If we assume no significant comments being  
15 received, we think that turnaround would be rather  
16 quick, you know, week to two weeks. Certainly we  
17 don't know what we don't know until we get to the  
18 comment period, but right now we do not  
19 anticipate -- this is a -- like I say, it's a very  
20 efficient combustion turbine. We have an existing  
21 brown field site that we're expanding. All our  
22 modeling efforts that we provided in our  
23 application I believe has been confirmed by the  
24 North Dakota Department of Health, so we don't  
25 believe there's any issues that will be



1 zoning agenda in that second week of April. The  
2 following week is a county commission meeting. So  
3 there will actually be two opportunities for the  
4 county commission to take care of that before May.

5 Q. As I recall, both Phase I and Phase II  
6 kind of started construction around the May time  
7 period of their respective years?

8 A. That's correct.

9 Q. And I don't know, you can pass this off to  
10 Jeff if -- it's not really an environmental  
11 question, but if one or the other or us holds this  
12 up, is there a time of year at which a project like  
13 this would just be delayed until the following year  
14 that you wouldn't want to start so close to winter,  
15 or would this be something that would kick off  
16 whenever the approvals are granted regardless of  
17 season?

18 A. Sure. The actual schedule, I should have  
19 Mr. Rossow answer that. But knowing -- we all know  
20 what North Dakota is like, so starting in May we  
21 have -- we have the true construction season, you  
22 know, May till freeze-up, and then you have to  
23 implement some other additional procedures for  
24 cold-weather construction. Certainly doing the  
25 site grading and doing the foundation work, it's

1 best when it's warm weather, but they can do those  
2 things during -- during the winter months.

3 So if we were delayed some into the May,  
4 June timeline, it would just probably accelerate  
5 their construction schedule for that upfront civil  
6 work. But we don't anticipate that there's that --  
7 any great deal of a delay for our approvals.

8 COMMISSIONER CHRISTMANN: Okay. I don't  
9 have any other questions. Thanks, Cris.

10 JUDGE MANN: Ms. Lambert, any follow-up?

11 MS. LAMBERT: No, Your Honor.

12 JUDGE MANN: Mr. Schmidt?

13 MR. SCHMIDT: Nothing further.

14 JUDGE MANN: Mr. Schock?

15 MR. SCHOCK: Nothing, Your Honor.

16 JUDGE MANN: Commissioner Kalk?

17 Commissioner Fedorchak? Commissioner Christmann?

18 Thank you, Mr. Miller. Anything further,  
19 Ms. Lambert?

20 MS. LAMBERT: No, Your Honor.

21 JUDGE MANN: Okay.

22 COMMISSIONER CHRISTMANN: I have a  
23 question, Your Honor.

24 JUDGE MANN: Sure.

25 COMMISSIONER CHRISTMANN: And I don't know

1 if it would be for Jeff or Becky, but if I could  
2 just ask it and let Ms. Lambert have someone answer  
3 it. Is that --

4 JUDGE MANN: Sure. And then she can  
5 recall whoever the appropriate witness is.

6 MS. LAMBERT: Yes.

7 COMMISSIONER CHRISTMANN: I'm wondering  
8 whether this project, if you assume that approvals  
9 are granted from government agencies, does  
10 construction of this hinge on approval of the power  
11 line that goes from over by Alexander to east of  
12 Watford City, that section of the North Killdeer  
13 Loop, or is this something completely separate from  
14 that.

15 MS. LAMBERT: I'd like to recall Josh  
16 Rossow, Your Honor.

17 MR. ROSSOW: No. I think Becky would be  
18 better suited.

19 MS. LAMBERT: Excuse me, Your Honor. I'd  
20 like to please call Becky Kern back to the stand.

21 JUDGE MANN: Ms. Kern, I don't know if you  
22 got the question. Commissioner Christmann, did you  
23 want to repeat that?

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**BECKY KERN,**

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

**FURTHER EXAMINATION**

**BY COMMISSIONER CHRISTMANN:**

Q. If all approvals are granted, does construction of this project hinge on the approval of, if I'm appropriately naming it, the North Killdeer Loop, the section that goes from near Alexander to east of Watford City?

A. This project is supposed to interconnect into the McKenzie Electric 115 facilities and then ultimately up to a Basin Electric-owned project. Personally, I haven't been involved exactly with the -- you know, the North Killdeer Loop project to exactly know specifically how that's interconnecting to answer that completely. I know there is some linkage into part -- you know, how it's actually interconnecting into that facility, but I can't completely answer your question.

COMMISSIONER CHRISTMANN: Okay.

JUDGE MANN: Any follow-up, Ms. Lambert?

MS. LAMBERT: No, Your Honor.

JUDGE MANN: Okay. Mr. Schmidt?

Mr. Schock? Commissioner Kalk?

1 COMMISSIONER KALK: No.

2 JUDGE MANN: Thank you. Anything else?

3 MS. LAMBERT: No, Your Honor.

4 JUDGE MANN: Okay. Any members of the  
5 public wish to come forward and offer testimony at  
6 this time?

7 Come on up. And could I have you state  
8 your name.

9 MR. SKURUPEY: John Skurupey,  
10 S-k-u-r-u-p-e-y.

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

16 (Witness sworn.)

17 JUDGE MANN: Okay. Go ahead with your  
18 testimony.

19 **JOHN SKURUPEY,**  
20 being first duly sworn, was examined and testified  
21 as follows:

22 **STATEMENT**

23 **BY MR. SKURUPEY:**

24 MR. SKURUPEY: Commissioner Christmann,  
25 your last question, of does it hinge, my belief is

1     it doesn't. I think the underlying system that we,  
2     McKenzie Electric, is installing is sufficient for  
3     now. The North Killdeer Loop, the Kummer Ridge  
4     facility is very important to us in the long run,  
5     but in the interim I think we have the ability to  
6     get the power where it needs to go.

7             So I was telling Basin people that I  
8     should have just recorded myself and just played it  
9     over for you from last week. But since last week,  
10    interestingly enough, we've had another project  
11    that's come back on to the table, the Oasis gas  
12    plant and oil delivery station. It's another  
13    15 megawatts for us. And the Dakota Access  
14    Pipeline is -- they're now starting to want to  
15    proceed a little bit faster on that. So we're --  
16    that's another potential 20 megawatts.

17            So that's the nature of the beast out  
18    here. It just speaks to the need for both  
19    transmission and generation infrastructure so that  
20    we can have reliable electricity for the high-load  
21    factor loads that we serve. And anything the  
22    Commission can do to facilitate that, we --  
23    McKenzie Electric's members greatly appreciate it.

24            JUDGE MANN: Ms. Lambert, any questions?

25            MS. LAMBERT: No, Your Honor.

1 JUDGE MANN: Mr. Schmidt?

2 MR. SCHMIDT: No.

3 JUDGE MANN: Mr. Schock?

4 MR. SCHOCK: No.

5 JUDGE MANN: Commissioner Kalk.

6 COMMISSIONER KALK: No. Just thank you.

7 JUDGE MANN: Commissioner Fedorchak.

8 COMMISSIONER FEDORCHAK: Thanks for being  
9 here. Appreciate it.

10 JUDGE MANN: Commissioner --

11 COMMISSIONER FEDORCHAK: I remember what  
12 you said last week, too, so I'll refresh those  
13 notes.

14 THE WITNESS: Thank you. Not everybody  
15 listens.

16 JUDGE MANN: Commissioner Christmann?

17 COMMISSIONER CHRISTMANN: Appreciate the  
18 clarification. Thanks, John.

19 THE WITNESS: Sure.

20 JUDGE MANN: Thank you.

21 MR. MAHOWALD: I have written comments  
22 here.

23 JUDGE MANN: Okay. And could I just get  
24 you to state your name.

25 MR. MAHOWALD: Jerry Mahowald.



1 electricity from Basin and Western Area Power  
2 Administration to its ten co-ops in western North  
3 Dakota and eastern Montana. There are five  
4 cooperatives in North Dakota and five in Montana.

5 Our load forecasts have been adjusted to  
6 reflect our currently lower oil prices, as Becky  
7 went through, and still we expect significant  
8 growth in electrical demand in northwestern North  
9 Dakota and northeastern Montana.

10 In February 2015, Upper Missouri achieved  
11 a new peak of 1,011 megawatts. Our new forecast  
12 projects growth of an additional 1,231 megawatts in  
13 the next 20 years. To meet this demand, we must  
14 continue to efficiently develop our transmission  
15 system and our power production. The addition of  
16 Phase III of the Lonesome Creek Station and the  
17 construction of the additional natural gas turbines  
18 associated with this project are an important piece  
19 of Basin's commitment to reliability in our region.

20 We carefully and continuously plan and  
21 assess our generation and transmission needs. It  
22 is important infrastructure additions and  
23 improvements are made to meet the demands of  
24 growth, as well as maintaining continued  
25 reliability to the residents, ranchers and all of

1 the industry already developed in our region.

2 The incremental addition of generation,  
3 such as the addition of Phase III of the Lonesome  
4 Creek Station, protects the reliability of the  
5 electric system while avoiding potential overbuild  
6 of assets.

7 Upper Missouri strongly supports  
8 development and expeditious construction of Phase  
9 III at Lonesome Creek Station.

10 JUDGE MANN: Before we do any questions,  
11 Ms. Lambert, did you have an opportunity to look at  
12 the prepared testimony?

13 MS. LAMBERT: I have, Your Honor.

14 JUDGE MANN: Okay. Do you have any  
15 objection to its admission?

16 MS. LAMBERT: No, Your Honor.

17 JUDGE MANN: Mr. Schmidt?

18 MR. SCHMIDT: I have no objection.

19 JUDGE MANN: I'll mark that as Exhibit 10  
20 and Exhibit 10 will be admitted.

21 Ms. Lambert, do you have any questions for  
22 the witness?

23 MS. LAMBERT: No, Your Honor.

24 JUDGE MANN: Okay. Mr. Schmidt?

25 MR. SCHMIDT: No questions, Your Honor.

1 JUDGE MANN: Mr. Schock?

2 MR. SCHOCK: No.

3 JUDGE MANN: Commissioner Kalk?

4 COMMISSIONER KALK: No, Your Honor.

5 JUDGE MANN: Commissioner Fedorchak?

6 COMMISSIONER FEDORCHAK: Thanks for being  
7 here, Jeremy. Mahowald, I hesitate to do this, but  
8 are you related to Doug Mahowald in Bismarck?

9 THE WITNESS: I've been asked that before.  
10 I don't believe so.

11 COMMISSIONER FEDORCHAK: Okay. It's not a  
12 very common last name, so I had to ask. Thank you  
13 for coming. Appreciate it.

14 JUDGE MANN: Commissioner Christmann?

15 COMMISSIONER CHRISTMANN: No questions,  
16 but thanks for being here.

17 JUDGE MANN: Thank you. You can step  
18 down.

19 Anybody else? Doesn't look like it.

20 So that concludes the public testimony.

21 Ms. Lambert, anything else? Would you  
22 like to make a closing statement or do you have any  
23 other issues?

24 MS. LAMBERT: No, Your Honor.

25 JUDGE MANN: Okay. Mr. Schmidt, anything

1 else?

2 MR. SCHMIDT: I have no closing statement.  
3 Just wondering if you'll be supplying us with the  
4 proposed findings?

5 MS. LAMBERT: Yes. You can expect those  
6 in the next week or so.

7 JUDGE MANN: Okay. Mr. Schock, anything?

8 MR. SCHOCK: No.

9 JUDGE MANN: Okay. Commissioner Kalk.

10 COMMISSIONER KALK: Just thank everyone  
11 for coming out today. A very thorough hearing and  
12 prepared very well.

13 The -- I really have no concerns from what  
14 I heard today. We have no late-filed exhibits.  
15 Pretty clean hearing. So speaking for myself,  
16 we'll get this scheduled pretty quick for a work  
17 session, and the sooner you get the proposed order,  
18 I think the sooner you'll get a decision out of us.

19 Victor asked a question about filing fees  
20 and I appreciate the question, but I can't see us  
21 going back and asking for more filing fees. But  
22 we've had a lot of discussion on the Commission  
23 actually about when to refund the filing fees,  
24 because you -- you fund the amount of money, we  
25 take our costs out of it and then a lot of it gets

1 held until the final tree and shrub plan. So we're  
2 really looking at that right now, and we're going  
3 to make the decision here I think pretty soon on  
4 how to get much of that money back to the companies  
5 quicker and hold a smaller amount, because I think  
6 the last couple years -- well, I know the last  
7 couple years we were holding some of this kind of  
8 waiting to see how this would all play out. So  
9 it's not related to this hearing, but a little  
10 discussion with Basin, you have a lot of money tied  
11 up in filing fees that -- we'd like to get it back  
12 to you but making sure there is some there as we go  
13 through the final oversight of the construction  
14 phase.

15 So thank you all for the hearing, and I  
16 look forward to a quick decision.

17 JUDGE MANN: Commissioner Fedorchak.

18 COMMISSIONER FEDORCHAK: I don't have any  
19 big issues with this, either. I think a good,  
20 thorough discussion of all the environmental,  
21 cultural impacts, residences, noise, cost gamut. I  
22 appreciate the company's good discussion on your  
23 plans, your outlook, all the information on your  
24 forecasts, et cetera.

25 It gets important for all of us to be

1 engaged on those kinds of discussions to support  
2 the long-term reliability of the electric grid that  
3 so many people are counting on.

4 So thanks very much.

5 JUDGE MANN: Commissioner Christmann.

6 COMMISSIONER CHRISTMANN: Well, once  
7 again, I've said it before in a number of Basin's  
8 applications, but I appreciate the thoroughness of  
9 the applications. It kind of makes it hard  
10 sometimes to come up with questions when you get  
11 most of your answers in preparing for the case.

12 But I just always like to emphasize  
13 that -- I guess it's easy to say since we're using  
14 Basin's money to cover our costs, but I do think  
15 that the investment of resources and our time to  
16 come out and hold these kinds of hearings is well  
17 worth it even when there isn't a bunch of public  
18 testimony.

19 I think oftentimes the lack of anyone  
20 locally coming out to a local meeting to say  
21 anything speaks just as loudly as other instances  
22 when we have a strong contingent of people who come  
23 out and articulate their thoughts. So I think we  
24 do learn a lot from this process, whether it's from  
25 words or from no one showing up to testify.

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So I appreciate all the information we got today, and I expect that we'll have a decision relatively soon.

JUDGE MANN: Thank you.

And that concludes the public hearing in this matter.

(Concluded at 11:39 a.m., the same day.)

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CERTIFICATE OF COURT REPORTER

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

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

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

Dated at Bismarck, North Dakota, this 14th day of April, 2015.

-----  
Stephanie A. Smith  
Registered Professional Reporter

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