



Before the Public Service Commission of  
The State of North Dakota

In the Matter of the Application of  
**BASIN ELECTRIC POWER COOPERATIVE**  
For a Certificate of Site Compatibility for the  
Lonesome Creek Generation Station Phase III Project

Case No. PU-14-852

Pre-filed Testimony  
of  
Cris Miller

**23**    **PU-14-852**    Filed: 3/26/2015    Pages: 9  
**Exhibit 3**

Basin Electric Power Cooperative

1 Q. **Please state your name, address and occupation.**

2

3 A. My name is Cris Miller. My business address is 1717 East Interstate Avenue,  
4 Bismarck, North Dakota. I am employed by Basin Electric Power Cooperative as a  
5 Senior Environmental Project Administrator. I am responsible for the preparation of  
6 environmental studies and permit applications for transmission and generation  
7 projects Basin Electric is currently planning.

8

9 Q. **Please describe your educational background and professional experience.**

10

11 A. I earned a Bachelor of Science degree from the North Dakota State University, Fargo,  
12 North Dakota in 1982 with a major in Civil Engineering. I have been employed with  
13 Basin Electric since 1991. I am a Professional Engineer, Registered in the State of  
14 North Dakota.

15

16 Q. **What are your responsibilities in connection with the proposed Lonesome  
17 Creek Generation Station Phase III Project?**

18

19 A. I am responsible for the overall coordination of the environmental analysis of the  
20 proposed Project. This involves working with an interdisciplinary consultant team,  
21 contacting and meeting with public officials, coordinating activities with other Basin  
22 Electric departments and reviewing and coordinating the various reports that have  
23 been submitted to the North Dakota Public Service Commission and other interested  
24 agencies.

25

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

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28 A. I will describe the practices used to demonstrate that with respect to environmental  
29 considerations. The proposed site is in accordance with the North Dakota Energy  
30 Conversion Facility Siting Act and the North Dakota Public Service Commission Siting  
31 rules.

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1 Q. **Please provide a general description of the land use of the proposed site.**

2

3 A. The existing Lonesome Creek Station, which I will refer to as LCS in my testimony,  
4 includes the three generating units and associated infrastructure that is surrounded by  
5 a security fence and is approximately seven acres in size. The LCS Phase III Project  
6 consists of three additional generating units within an additional five acre fenced  
7 parcel and a 2.8 acre switchyard site as shown on Figure 3.3 of the Application. The  
8 Commission approved the northern 48.4 acre parcel for use as an energy conversion  
9 facility in 2012, identified as LCS Phase II (PU-12-790). With the additional area  
10 required to support the switchyard, Basin Electric has identified the northern 66.7 acre  
11 parcel for consideration here today for siting. This extension represents an additional  
12 300 feet southward across the parcel from the previous southern boundary of the  
13 Energy Conversion Site that is required to accommodate the switchyard area. The  
14 entire 160 acre parcel that Basin Electric purchased is zoned industrial. The land use  
15 around the site area is predominately agricultural and commercial. There are also  
16 scattered oil and gas pads and commercial enterprises surrounding LCS. There are  
17 commercial areas, workforce housing, asphalt batch plant, aggregate stockpile and oil  
18 infrastructure located near the proposed Project.

19

20 Q. **Was there any Federal Nexus for the proposed Project that required compliance**  
21 **with the National Environmental Policy Act?**

22

23 A. There were no federal nexuses for the proposed LCS Phase III Project.

24

25 Q. **Will the proposed Project impact any threatened or endangered species?**

26

27 A. There will be no effects to any federally listed species or candidate species.

28

29 Q. **In addition to the siting permit from the PSC, what other permits are necessary**  
30 **for Basin Electric to obtain for the proposed Project? Please provide the status**  
31 **of these permits.**

32

33 A. The proposed Project was required to obtain an Air Pollution Control Prevention of  
34 Significant Deterioration Permit to Construct from the North Dakota Department of

1 Health. That Permit application was submitted in October of 2014. It is currently  
2 under review and consideration from the North Dakota Department of Health. The  
3 Alex Township approved the proposed Project at their February 19, 2015 Planning  
4 and Zoning Meeting. A Conditional Use Permit application was submitted to McKenzie  
5 County in March 2015 and is currently under review and consideration. Basin Electric  
6 anticipates the proposed Project will be on the agenda at the April 13, 2015 meeting  
7 of the McKenzie County Planning and Zoning Board. Basin Electric acquired a  
8 National Discharge Pollutant Discharge Elimination System Permit from the North  
9 Dakota Department of Health for the LCS site. The Permit will be revised to  
10 incorporate the expansion of the storage stormwater volume necessary for the  
11 additional contributing eight acres of surface area from the generation units and the  
12 switchyard.  
13

14 **Q. The North Dakota Public Service Commission Rules at North Dakota**  
15 **Administrative Code, Chapter 69-06-01 discusses avoidance and exclusion**  
16 **areas. Does the plant site contain any avoidance or exclusion areas?**  
17

18 **A. No.**  
19

20 **Q. Did Basin Electric incorporate public input in the site selection process of the**  
21 **LCS Phase III Project?**  
22

23 **A. Yes.** Basin Electric notified Federal and State Agencies through a Project mailing.  
24 Responses were received from the U.S. Fish and Wildlife Service, North Dakota  
25 Department of Health, National Resource Conservation Service, Department of  
26 Defense and the U.S. Army Corps of Engineers, North Dakota Game and Fish  
27 Department, North Dakota State Water Commission North Dakota State Historical  
28 Society, North Dakota Department of Transportation and McKenzie County Board of  
29 Commissioners.  
30

31 **Q. Did any of these agencies express concerns about the proposed Project that**  
32 **Basin Electric had not already addressed?**  
33

1 A. No, all concerns about the proposed Project were addressed by Basin Electric. All the  
2 agency responses are listed in Appendix G of the Application.

3

4 Q. **The following questions refer to the PSC Site Selection Criteria.**  
5 **How does the proposed site demonstrate that significant adverse effects, if any,**  
6 **upon agriculture will be kept to an acceptable minimum? Please address this**  
7 **issue in terms of farmsteads, crop land, and interference with irrigation.**

8

9 A. There are no farmsteads on the 66.7 acre Energy Conversion Site nor within the  
10 approximately 160 acre parcel of cropland that Basin Electric purchased.

11

12 ➤ There is no irrigation within the 66.7 acre parcel.

13

14 ➤ Farmsteads are scattered throughout the proposed Project Area. The  
15 area to the northwest of the proposed Project holds multiple  
16 commercial, industrial and oil-related support facilities including a man-  
17 camp facility.

18

19 ➤ Agriculture and oil development related infrastructure dominate the land  
20 use in the proposed Project's vicinity. The existing seven acres of LCS  
21 is currently a developed industrial facility. The addition of five additional  
22 acres for the fenced LCS Phase III site and the 2.8 acre fenced  
23 switchyard sites incorporates approximately 15 acres in total. The  
24 remaining 145 acres of the area owned by Basin Electric will remain in  
25 predominately agricultural use.

26

27 Q. **Is there any anticipated impact on the surface drainage patterns or ground**  
28 **water flow patterns on the LCS plant site?**

29

30 A. Precipitation that falls within the plant and switchyard areas, as well as the air-cooling  
31 reject water, will be directed to the water retention pond. These waters will be  
32 released when they meet the criteria of the Plants Discharge Permit. The precipitation  
33 that falls outside of the Plant site will follow the natural flow patterns that currently  
34 exist. No impacts are anticipated to occur to either surface or groundwater flow  
35 patterns.

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**Q. Do you anticipate any significant adverse effect on noise sensitive land uses resulting from the location, construction, and maintenance of the proposed Project?**

A. No significant adverse effect is anticipated; sensitive noise receptors within the area include farmsteads and commercial businesses located along U.S. Hwy. 85 and on lands located to the northwest of the proposed Project. There would be a short term increase in noise during construction of the proposed Project. The nearest residences are located approximately 3/4 mile from the proposed Project.

**Q. Were any studies done to assess the noise levels that can be expected from the operation of the proposed Project?**

A. An Operational Noise Assessment Study was performed by Basin Electric's consultant Burns and McDonnell, included as Appendix C of the Application. The maximum noise level modeled at a commercial receptor due to the operation of the LCS with all six units operating was determined to be L<sub>dn</sub> of 48.6 dBA. The highest noise level modeled at a rural residence was an L<sub>dn</sub> of 44.6 dBA. Both of these maximums are below the EPA guideline of 55 dBA.

**Q. Will the proposed Project have any visual impacts to the adjacent areas?**

A. Visual resources surrounding the proposed Project site consist of broad expanses of cultivated fields, rangeland, and grasslands. The landscape has been altered due to recent commercial and industrial development including oil and gas exploration and production infrastructure. Because of the gently rolling terrain in the immediate vicinity, the proposed Project will be visible in the general area but the overall character of the landscape would not be significantly changed.

**Q. Do you anticipate any significant impacts on areas of extractive or storage resources?**

1 A. No. While there is significant oil and gas activity in the area, it would not conflict with  
2 the proposed Project.

3

4 Q. **Are there any impacts on wetlands, woodlands or wood areas?**

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6 A. There are no wetlands, woodlands, and wooded areas on the Project site.

7

8 Q. **Does the construction, operation and maintenance of the proposed Project  
9 require Basin Electric to remove any trees or shrubs?**

10

11 A. No.

12

13 Q. **Will there be any impacts on radio and television reception, or other  
14 communication or electronically controlled devices by the operation,  
15 construction and maintenance of the proposed Project?**

16

17 A. No.

18

19 Q. **Do you expect any significant adverse effect on human and animal health and  
20 safety or plant life?**

21

22 A. No significant adverse effects are anticipated for the Project. No additional  
23 anhydrous ammonia storage is required for LCS Phase III beyond what is currently  
24 provided for. Anhydrous ammonia is used as a reagent for the control of oxides of  
25 nitrogen for the Project. Anhydrous ammonia is stored in two 10,000 pound capacity  
26 storage tanks. The actual volume stored in each tank is equivalent to 1,700 gallons of  
27 liquid. To understand and minimize the risk to human, animal and plant health and  
28 safety, a Risk Management Plan specific to anhydrous ammonia was developed. To  
29 aide in the perspective of the quantity of 10,000 pounds of anhydrous ammonia, I will  
30 point out that the anhydrous ammonia tanks that are utilized in typical farming  
31 operations have trailers with 1,000 to 1,450 gallon tanks installed. The Federal  
32 Department of Transportation has a specific limit of 3,000 gallons per individual trailer  
33 that can be utilized on a public roadway. The North Dakota Department of Agriculture  
34 regulates Anhydrous Ammonia Facilities and the Department's threshold for

1 regulation for bulk storage tanks of anhydrous ammonia are tanks in excess of 6,000  
2 gallons. Therefore, LCS is not a regulated bulk storage facility. Mr. Rossow, the  
3 Project Manager, previously testified as to the efforts undertaken to coordinate  
4 operational activities of LCS with the Local Emergency Planning Committee.  
5

6 **Q. Will it be possible to locate the site so as not to violate any local or county**  
7 **zoning ordinance?**  
8

9 A. Yes. Basin Electric secured zoning approvals for LCS and associated facilities from  
10 the Alexander Township in 2012. At that time, McKenzie County did not have  
11 Planning and Zoning Regulations in place. A Conditional Use Permit for LCS Phase II  
12 was received from the McKenzie County Planning and Zoning Board and McKenzie  
13 County Commission January, 2014. As for LCS Phase III Project, the Alex Township  
14 Planning and Zoning board approved the LCS Phase III Project in February 2015. A  
15 Conditional Use Permit was submitted to McKenzie County for the LCS Phase III  
16 Project and is currently under review and consideration.  
17

18 **Q. Does the proposed Project encroach on any designated or registered state wild,**  
19 **scenic, or recreational rivers, game refuges, game management areas, forests,**  
20 **forest management lands, or grasslands?**  
21

22 A. No.  
23

24 **Q. Does the proposed Project encroach on any areas of historical, archaeological**  
25 **or paleontological significance not designated as exclusion or avoidance**  
26 **areas?**  
27

28 A. The proposed Project is within an area that a previous Class III cultural resource  
29 survey was performed. No prehistoric and historic sites were identified during the  
30 Class III surveys. It is unlikely paleontological resources would be affected by the  
31 proposed Project, since there is little or no bedrock exposed on the plant site. No  
32 paleontological resources have been identified within the proposed Project  
33 boundaries.  
34

1 Q. **Are there any geologically unstable areas within the Project Site?**

2

3 A. No.

4

5 Q. **Does this conclude your testimony?**

6

7 A. Yes.

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