



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
Pioneer Generation Station Phase III Project

Case No. PU-14-829

Pre-filed Testimony
of
Cris Miller

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 Specialist. I am responsible for the preparation of
6 environmental studies and permit applications for various transmission and generation
7 projects Basin Electric is currently planning.

8

9 Q. **Would you please state your educational background and professional
10 experience?**

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

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17 Q. **Mr. Miller, what have been your responsibilities in connection with the Pioneer
18 Generation Station Phase III Project?**

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

26

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

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

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33 Q. **Mr. Miller, would you please give the Commission a general description of the
34 land use of the proposed site?**

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A. PGS, which currently includes the three generating units and associated infrastructure is surrounded by a security fence and is approximately 7 acres in size. The entire 120 acre parcel that Basin Electric purchased is zoned industrial. The land use around the site area is predominately agricultural. The ONEOK Stateline gas processing plant is located adjacent to PGS in Township 155N, Range 103W, Section 21. These two facilities are separated by Williams County Road 5 which runs north and south between these two facilities. There are also scattered oil and gas pads surrounding PGS.

Q. Can you describe why historical background of the Permitting of the Pioneer Generating Station?

A. PGS Phase I was not required to undergo State Siting because the project fell below these permitting thresholds. PGS Phase II exceeded the 50 MW Siting threshold. Subsequently, the Phase II Project received a Certificate of Site Compatibility in Case No. PU-12-509 in March, 2013. The addition of PGS Phase III also exceeds the 50 MW Siting threshold and is the subject for this application.

Q. Was there a Federal Nexus for the Project that required compliance with the National Environmental Policy Act?

A. No

Q. So there will not be an environmental impact statement prepared for this Project?

A. No, however, most, if not all of the resource areas that would have been studied under the environmental impact statement process were evaluated in the preparation of this application, including impacts to plants, animals and the environment, cultural resources and air quality.

1 Q. **In addition to the siting permit from the PSC, what other permits are necessary**
2 **for Basin Electric to obtain for this Project? Please give the status of these**
3 **permits.**

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5 A. The proposed Project will be required to obtain an Air Pollution Control Prevention of
6 Significant Deterioration Permit to Construct from the North Dakota Department of
7 Health. The Permit application was submitted to the Department in November of 2014
8 and is currently under review. The Permit to construct is expected to be issued early
9 in the second quarter 2015. Further, a Conditional Use Permit application was
10 submitted to Williams County in February 2015 and is still under their consideration.

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12 Q. **Please describe what an “Exclusion criteria” means?**

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14 A. The North Dakota Public Service Commission Rules at North Dakota Administrative
15 Code, Chapter 69-06-01 states, “Exclusion criteria means criteria that remove areas
16 from consideration for energy conversion facility sites and transmission facility routes.”

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18 Q. **Does the Plant site contain any exclusion areas?**

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20 A. No

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22 Q. **Please describe what an “Avoidance criteria” means?**

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24 A. The North Dakota Public Service Commission Rules at North Dakota Administrative
25 Code, Chapter 69-06-01 states, “Avoidance criteria means criteria that remove areas
26 from consideration for energy conversation facility sites and transmission facility
27 routes unless it is shown that under the circumstances there are no reasonable
28 alternatives.”

29
30 Q. **Does the Plant site contain any avoidance areas?**

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32 A. No

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1 Q. **Mr. Miller, did Basin Electric incorporate public input in the site selection**
2 **process of the Pioneer Generation Station Phase III Project?**

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4 A. Yes. Basin Electric notified Federal and State Agencies through a Project mailing.
5 Agency responses were received from the U.S. Fish and Wildlife Service, ND
6 Department of Health, National Resource Conservation Service, Department of
7 Defense and the U.S. Army Corps of Engineers.

8
9 Q. **Mr. Miller, did any of these agencies express concerns that the Project had not**
10 **already addressed?**

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12 A. All the Agency responses are listed in Appendix B of the Application. All responses
13 were addressed by the Project.

14
15 Q. **Mr. Miller, I am going to ask you a series of questions regarding the PSC Site**
16 **Selection Criteria.**

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18 How does the proposed site demonstrate that significant adverse effects, if any, upon
19 agriculture will be kept to an acceptable minimum? Please address this issue in terms
20 of farmsteads, crop land, and interference with irrigation.

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22 There are no farmsteads on the Project site. Basin Electric purchased approximately
23 120 acres of land that was crop land. The existing Pioneer Generating Station
24 occupies approximately seven acres. There is no irrigation within the 120 acre parcel.
25 Farmsteads are scattered throughout the proposed Project Area. The highest density
26 of residences and businesses are located in and around the City of Williston, which is
27 located southeast of the Project. Agriculture and livestock production dominate the
28 land use in the Project's vicinity. PGS is currently a developed industrial facility. The
29 existing PGS site incorporates approximately 7 acres of land, of which 100 percent
30 was originally classified as cropland. PGS Phase III will develop 8.2 acres for the
31 generation facility and 3.7 acres for the switchyard, for a total of 11.9 acres that will be
32 permanently disturbed. The remaining 101 acres of the property owned by Basin
33 Electric will remain in agricultural use.

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1 A new road approach would be required on County Road 5, also referred to as 151st
2 Ave to accommodate the Project. Additionally, the an access to the electric switchyard
3 will be off of 56th St as shown on the General Arrangement drawing.
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5 **Q. Mr. Miller, is there any anticipated impact on the surface drainage patterns or**
6 **ground water flow patterns on the Plant site?**

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8 A. Precipitation that falls within the PGS Phase III Plant site and Switchyard will be
9 directed to the storm water retention pond. These waters will be released when they
10 meet the criteria of the Plants Storm Water Management Plan. The precipitation that
11 falls outside of the Plant site will follow the natural flow patterns that currently exist.
12 No impacts are anticipated to occur to either surface or groundwater flow patterns.
13

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

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18 A. No significant adverse effect is anticipated; sensitive noise receptors within the area
19 include rural residents living in scattered locations on farmsteads, a local rural church
20 and former farmsteads that are currently used for farm storage. ONEOK's Stalene
21 gas processing facility is located to the east on adjacent property. There would be a
22 short term increase in noise during construction of the Project. The nearest
23 residences are located greater than one mile from the Project. A rural church is
24 located approximately ¾ of a mile north of the Project.
25

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

28
29 A. An Operational Noise Assessment Study for PGS Phase II Project was performed by
30 Basin Electric's consultant Burns and McDonnell in August 2014. The Noise
31 Assessment Study was included as Appendix A of the Application. The maximum
32 noise level at an occupied residence due to the operation of the PGS with all three
33 units operating was determined to be L_{dn} of 41.6 dBA, which is lower than the EPA
34 guideline of 55 dBA. The closest receptor that was incorporated within the original

1 noise modeling study, the August Monitoring Study and the predictive modeling for the
2 Phase III project is Sensitive receptor SR-1. SR-1 is the neighboring churchyard
3 located approximately 3/4 miles north of PGS. The as-found L_{dn} conditions was 48.4
4 db, which was an increase of 0.2 db from the predicted model for Phase II. For Phase
5 III Project, an additional Sound Assessment Study was undertaken by Burns and
6 McDonnell in September 2014. The predictive modeling indicates an L_{dn} of 49.4 db at
7 this location for the 12 reciprocating engines and the three existing combustion
8 turbines in operation. In conclusion, the predicted noise level of the operation of the
9 Project is significantly below the 55 db EPA noise guidelines.

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

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13 **A.** Visual resources surrounding the Project consist of broad expanses of cultivated
14 fields, rangeland, and grasslands. The landscape has been altered due to previous
15 development; oil and gas exploration and production infrastructure, a large gas
16 processing facility, roads, and utility lines are all present in the area. Because of the
17 gently rolling terrain in the immediate vicinity, the Project will be visible in the general
18 area; however, the overall character of the landscape would not be significantly
19 changed.

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

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

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

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

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

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34 **A.** No

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

A. No

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

A. No.

Q. **Mr. Miller, will it be possible to locate the site so as not to violate any local or county zoning ordinance?**

A. Yes. Basin Electric secured zoning approvals for PGS Phase II and associated facilities from the Williams County Commission and Hebron Township in 2015 and for PGS Phase I in 2012. Hebron Township has been informed of the Phase III Project and we are awaiting approval from the Hebron Township Board. As a matter of transparency with the Commission, the Hebron Township Board brought concerns of the operation of the existing Stormwater Pond to Basin Electric's attention in December 2014. Basin Electric staff investigated the issue and have made commitments to address and correct once the pond and discharge facilities are ice free in the spring of this year. Further, in early January 2015, Basin Electric staff met with an adjacent landowner and Township Board members to discuss the operation of Pioneer Generation Station and specifically the Phase III component of the Project. A Conditional Use application has been submitted to Williams County and is currently under review and analysis and will be filed with the Commission when it is received.

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

A. No.

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

A. The Project is within an area that a previous Class III cultural resource survey was performed. No prehistoric and historic sites were identified during the Class III surveys. No paleontological resources have been identified within the Project boundaries.

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

A. No

Q. **What is the extent of the Energy Conversion Facility boundary for PGS?**

A. PGS's Phase II current Energy Conversion boundary is limited to the extent of within the 7 acre fenced parcel. For this application we have an additional 8.3 acres within a perimeter fence. Further there is a 3.7 acre fenced 115-kV switchyard and an interconnecting access road off of 56th Street. In order to be thorough, Basin Electric is requesting that the entire 120-acre parcel owned by Basin Electric, which has been zoned Industrial from Williams County be identified as the Energy Conversion Facility for the Project subject to the provisions of ND PSC Chapter 69-06.

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

A. Yes.