

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 IV Project

Case No. PU-22-380

Pre-filed Testimony  
of  
Kevin Solie

1 **I. Introduction**

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

3 A. My name is Kevin Solie. My business address is 1717 East Interstate Avenue,  
4 Bismarck, North Dakota. I am employed by Basin Electric Power Cooperative (**Basin**  
5 **Electric**) as a Senior Environmental Compliance Administrator.

6  
7 **Q. Please describe your educational background and professional experience.**

8 A. I earned a Bachelor's of Science in Geology from the University of North Dakota in  
9 Grand Forks, North Dakota in 1987. In 1995, I earned a Master's of Science degree  
10 from the University of North Dakota with special emphasis on hydrogeology. In 2008,  
11 I earned a degree in Geological Engineering, again from the University of North  
12 Dakota. From 1991 to 2007, I worked as an Environmental Scientist for the North  
13 Dakota State Department of Health, Division of Waste Management.

14  
15 I am a retired commissioned officer of the North Dakota Army National Guard, having  
16 served a one-year tour of duty in Iraq. I was hired by Basin Electric in May 2007 and  
17 have worked on a variety of transmission and energy conversion facility siting  
18 applications. I am a professional engineer, registered in the states of North Dakota  
19 and Wyoming.

20  
21 **Q. What have been your responsibilities in connection with the Pioneer Generation**  
22 **Station Phase IV Project (Project)?**

23 A. I am responsible for the preparation and coordination of the environmental analysis of  
24 the Project within Basin Electric and through our consultant, Burns & McDonnell,  
25 based in Kansas City, Missouri. This involved working with an interdisciplinary  
26 consultant team, contacting and meeting with public officials, coordinating activities  
27 with other Basin Electric departments as well as reviewing and coordinating reports  
28 supporting the siting application to the Public Service Commission (**Commission**).

29  
30 **Q. What is the purpose of your testimony in this proceeding?**

31 A. I will describe the environmental practices used to demonstrate that the Project  
32 complies with the North Dakota Energy Conversion and Transmission Facility Siting  
33 Act and the Commission's rules and regulations.

34

1 Q. **Have there been any changes to the application since Basin Electric submitted**  
2 **it?**

3 A. As mentioned by Mr. Lund, the overall cost estimate for the Project has been updated  
4 to \$788 MM to include costs such as labor and financing and the relocation of the  
5 stormwater ponds within the Project footprint.

6

7 Q. **Please provide a general description of the land use for the Project site.**

8 A. The existing Pioneer Generating Station (**PGS**) is located on a 120-acre parcel that  
9 Basin Electric zoned as heavy industrial in 2012. The 160 acres acquired for the  
10 Project was originally zoned as agricultural. Basin Electric submitted a zoning  
11 amendment request to Williams County on November 3rd, 2022 requesting a change  
12 from agricultural zoning to heavy industrial zoning for the 160-acre expansion area.  
13 The Planning and Zoning Committee approved the amendment on December 15,  
14 2022. The amendment is expected to be before the Williams County Commission in  
15 early January, 2023.

16

17 The ONEOK Stateline gas processing plant is located adjacent to PGS in Section 21,  
18 Township 155N, Range 103W. The facilities are separated by Williams County Road  
19 5 which runs north and south between these two facilities. There are also scattered oil  
20 and gas pads surrounding PGS.

21

22 Q. **Please describe the site compatibility permitting history for Pioneer Generating**  
23 **Station.**

24 A. PGS Phase I did not require a Certificate of Site Compatibility because the original  
25 build fell below the Commission's siting thresholds. PGS Phase II exceeded the 50  
26 MW siting threshold and received a Certificate of Site Compatibility in Case No. PU-  
27 12-509 in March, 2013. For Phase III, Basin Electric added 12 gas-based  
28 reciprocating engines that were authorized in case PU-14-829 and began commercial  
29 operation in 2017.

30 **II. Exclusion and Avoidance Areas**

31 Q. **Please describe what an "Exclusion Area" is.**

32 A. An Exclusion Area is a geographical area that must be excluded in the consideration  
33 of a site for an energy conversion facility. Exclusion areas include a variety of areas

1 such as designated national or state parks, historic sites, grasslands, and wildlife  
2 refuges as well as areas proximal to intercontinental ballistic missile (ICBM) sites.

3 Q. **Does the Project contain any Exclusion Areas?**

4 A. No.

5  
6 Q. **Please describe what an Avoidance Area is.**

7 A. An Avoidance Area is a geographical area that may not be approved as a site for an  
8 energy conversion facility unless the applicant shows that under the circumstances  
9 there is no reasonable alternative.

10  
11 Q. **Does the Project contain any Avoidance Areas?**

12 A. No.

13  
14 Q. **Would you please provide some additional detail on this issue?**

15 A. The Project area contains several wetlands that are identified on National Wetland  
16 Inventory (NWI) maps. Basin Electric noted two NWI-mapped wetlands on original the  
17 120-acre parcel during initial site selection. The U.S. Army Corps of Engineers  
18 (USACE) determined those wetlands to be non-jurisdictional before construction of  
19 PGS began in 2012. For the Project, Basin Electric's consultant prepared a biological  
20 report that noted several NWI wetlands. During field studies, however, the consultant  
21 noted eight of the nine wetlands were not present. One was identified and delineated;  
22 Basin Electric will avoid construction and parking near the single wetland. A  
23 jurisdictional determination request was submitted to the USACE for the eight NWI-  
24 mapped wetlands on September 14, 2022. On October 27, 2022, USACE concurred  
25 with a finding that no wetlands or waters of the United States exist in the areas to be  
26 affected by construction and no permit is required from the USACE to complete the  
27 Project. As such, no wetland avoidance areas are affected.

28  
29 **III. Site Selection Criteria**

30 Q. **What do the applicable state laws provide regarding site Selection Criteria?**

31 A. The Code provides that a site may be approved in an area only when it is  
32 demonstrated to the Commission by the applicant that any significant adverse effects  
33 resulting from the location, construction, and operation of the facility that relate to  
34 certain areas will be at an acceptable minimum, or that those effects will be managed

1 and maintained at an acceptable minimum.

2  
3 **Q. How does Basin Electric’s selection of the proposed site demonstrate that**  
4 **significant adverse effects upon agricultural production and family farms and**  
5 **ranches will be kept to an acceptable minimum?**

6 A. The new combustion turbines, 345-kv substation, and the blowdown and stormwater  
7 ponds would occupy approximately 72 acres of the recently acquired 160-acre parcel  
8 north of the existing PGS site. Approximately 66 acres of the newly acquired parcel  
9 would be undisturbed by the Project. About 35 acres of farmland will be temporarily  
10 disturbed during Project construction and would return to agricultural use as  
11 practicable. The farmland is not currently irrigated. Given the vast amount of  
12 agricultural activity and lands in Williams County, the amount of land permanently  
13 removed for the Project would be negligible. Because the agricultural land is cropland  
14 and not pasture, there is no anticipated impact to ranching or animal health and  
15 safety.

16  
17 **Q. Is there any anticipated impact on the surface drainage patterns or ground**  
18 **water flow patterns (including aquifers)?**

19 A. No. There are no surface waters on the Project properties and there are no major  
20 streams near PGS. Construction would not affect groundwater resources, which are  
21 found only at great depths in the Project area.

22  
23 **Q. Do you expect any impact upon the availability and adequacy of law**  
24 **enforcement, schools or educational programs, governmental services and**  
25 **facilities, or medical facilities?**

26 A. No. Due to the Project’s location and the industrial development of the area, there are  
27 no expected impacts to municipal facilities or programs.

28  
29 **Q. Will there be any impacts to recreation?**

30 A. A few individuals may have previously used the newly acquired parcel for hunting and  
31 observation of nature. No adverse effects to recreational resources are anticipated by  
32 the Project as there are abundant hunting opportunities in the area and the visual  
33 character of the Project area is not anticipated to have a significant impact on the  
34 adjacent areas used for recreation.

1 Q. **Do you expect there will be an impact to retail service or transportation**  
2 **facilities?**

3 A. Williston and other communities of the vicinity of the Project may experience  
4 temporary and minimal increases in business during construction but no significant  
5 impacts to transportation or traffic are expected.

6

7 Q. **Are there any anticipated impacts to utility services?**

8 A. There are no anticipated impacts to utility services beyond the impacts mentioned in  
9 Mr. Lund's testimony.

10

11 Q. **Do you anticipate any significant adverse effects to noise-sensitive lands?**

12 A. No. Noise levels due to operation of the Project are expected to have minimal impact  
13 on the nine nearby properties (nine residences and a church) and are not expected to  
14 exceed the sound level limit of 55 dBA at any given time throughout construction and  
15 operation. Basin Electric will incorporate standard design sound-mitigating technology  
16 at the Project.

17

18 Q. **Do you anticipate any significant adverse visual impacts?**

19 A. No. Although the Project would contrast with the historical surrounding land use, the  
20 area has already been visually impacted by the existing PGS, the transmission  
21 infrastructure that connects PGS to the Stateline I Substation, the existing ONEOK  
22 Stateline I Gas Process facility, and various oil and gas facilities in the area.

23

24 Q. **Are there any anticipated impacts to rural residences and businesses?**

25 A. Beyond what has already been described, no significant impacts are expected.

26

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

29 A. No.

30

31 Q. **Does Basin anticipate there will be temporary or permanent skilled or unskilled**  
32 **labor for the Project? What about housing for the construction workers?**

33 A. Construction of the Project will require a small but specialized workforce to temporarily  
34 relocate to the area. Basin Electric anticipates that there would be an adequate supply

1 of temporary housing in Williams County or the surrounding area. The small  
2 permanent workforce of 15 people that will be required for the Project would be  
3 accommodated by current housing and would not generate additional demand for  
4 housing in the area.

5  
6 **Q. Do you anticipate any impacts to existing plans of industrial development or  
7 municipal development?**

8 **A.** No. The Project is not expected to interfere with any planned development or oil and  
9 gas activity.

10  
11 **Q. Will the Project have any impact upon military operations?**

12 **A.** No. No military installation, assets, or operations occur in the vicinity of the Project  
13 site.

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

18 **A.** No.

19  
20 **IV. Factors to be Considered in Evaluating Applications and Designation of Sites**

21 **Q. How did Basin Electric evaluate the irreversible and irretrievable commitment of  
22 natural resources?**

23 **A.** There are few commitments of resources associated with construction of the  
24 proposed Project that are irreversible and irretrievable. Resources that would be used  
25 to construct the Project include aggregate resources, concrete, steel, paint and  
26 solvents, and hydrocarbon fuel. Aside from paints, solvents, and fuels, most  
27 construction materials could be recycled or reused.

28  
29 **Q. Has Basin considered the direct and indirect economic impacts of the Project?**

30 **A.** Yes. The Project is not anticipated to require any additional government expenditures.  
31 To the contrary, expenditures made for equipment, fuel, operating supplies, and other  
32 products and services would benefit businesses in Williams County and State of North  
33 Dakota. Local governments could also experience short and long-term benefits from  
34 tax revenue collected during construction and operation of the Project. Once the

- 1 Project is completed, property taxes collected could benefit local and state  
2 governments and local projects.  
3
- 4 Q. **Would the Project encroach on any scenic areas, historic sites and structures,  
5 and paleontological or archaeological sites?**
- 6 A. No.  
7
- 8 Q. **Is the Project location habitat to any rare or endangered species?**
- 9 A. No.  
10
- 11 Q. **Was there any federal nexus for the Project that required compliance with the  
12 National Environmental Policy Act (NEPA)?**
- 13 A. No. Basin Electric financed the infrastructure through the Rural Utilities Service  
14 (RUS) and thus that construction required review and authorization under NEPA. As  
15 Basin Electric is no longer a RUS borrower, there is no federal nexus and there will  
16 not be an environmental impact statement or environmental assessment prepared for  
17 the Project.  
18
- 19 Q. **Did Basin Electric incorporate public input during the site selection process?**
- 20 A. Yes. Basin Electric solicited comments from federal and state agencies as part of the  
21 Commission's permitting process. Comments were received from thirteen state,  
22 federal, and local entities.  
23
- 24 Q. **Has the Basin Electric addressed issues raised by agencies regarding the  
25 Project?**
- 26 A. Yes. The agencies' comments varied according to function and jurisdiction, but  
27 generally emphasized a desire to minimize impacts to environmental resources, which  
28 Basin Electric has done by incorporating the mitigation measures into the Project. No  
29 agency raised any specific problems with the Project.  
30
- 31 Q. **Did any of these agencies express concerns about the Project that have not  
32 already been addressed?**
- 33 A. No. All the Agency responses are listed in Appendix D of the Application. Table 5-1 in  
34 the application contains a summary of the comments.

1 Q. **Are there any additional permits needed to begin construction of the Project?**

2 A. Yes. The application to amend the zoning for the 160-acre expansion parcel was  
3 submitted to the Williams County Planning and Zoning Commission on November 3,  
4 2022 and approved on December 15, 2022. Final zoning approval by the Williams  
5 County Commission is anticipated in early January of 2023.

6  
7 An updated stormwater management plan will be required for the Williams County  
8 Water Resource District Board. The updated plan is expected to be submitted for  
9 approval in January of 2023.

10  
11 Basin Electric will be required to obtain the appropriate air permit(s) from the North  
12 Dakota Department of Environmental Quality (**NDDEQ**). New facilities are required to  
13 obtain a Permit to Construct prior to initiating construction activities. Basin Electric is  
14 in the process of applying for a Permit to Construct from the NDDEQ for the Project  
15 emission sources. The Project would not be considered a major facility or project per  
16 federal Prevention of Significant Deterioration (**PSD**) regulations.

17  
18 Other minor permits include a construction general stormwater permit, approach  
19 permits, overweight/oversize load permits, and building permits. These permits will be  
20 secured by the contractor.

21  
22 Q. **In your professional opinion, are the environmental affects of the Project kept to  
23 an acceptable minimum?**

24 A. Yes.

25

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

27 A. Yes.