

STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION

Badger Wind, LLC
251.6 MW Badger Wind Project – Logan & McIntosh
Siting Application

Case No. PU-22-86

AFFIDAVIT OF SERVICE BY CERTIFIED MAIL

STATE OF NORTH DAKOTA
COUNTY OF BURLEIGH

Amy Haugen deposes and says that:

she is over the age of 18 years and not a party to this action and, on the **5th day of December 2022**, she deposited in the United States Mail, at Bismarck, North Dakota, **one** envelope with certified postage, return receipt requested, fully prepaid, securely sealed and containing a photocopy of:

- **Findings of Fact, Conclusions of Law and Order (With Concurring Opinion and Dissent Opinion)**

And Original Of:

- **Certificate of Site Compatibility Number 64**

The envelope was addressed as follows:

Mollie M. Smith
Fredrikson & Byron, P. A.
200 South Sixth St. Suite 4000
Minneapolis, MN 55402-1425
Cert. No. 7019 1120 0002 3204 4695

Amy Haugen further deposes that on the **5th day of December 2022**, she deposited in the United States Mail, at Bismarck, North Dakota, **one** envelope with certified postage, return receipt requested, fully prepaid, securely sealed and containing a photocopy of the same.

The envelope was addressed as follows:

Kevin Pranis, Marketing Manager
LIUNA Minnesota & North Dakota
81 East Little Canada Road
St. Paul, MN 55117
Cert. No. 7019 1120 0002 3204 4701

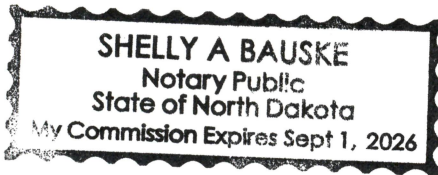
Each address shown is the respective addressee's last reasonably ascertainable post office address.

Subscribed and sworn to before me
this **5th day of December 2022**.

Amy Haugen

Shelly a Bauske

Notary Public



SEAL

STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION

Badger Wind, LLC
251.6 MW Badger Wind Project – Logan & McIntosh
Siting Application

Case No. PU-22-86

FINDINGS OF FACT, CONCLUSIONS OF LAW AND ORDER

November 30, 2022

Appearances

Commissioners Julie Fedorchak, Randy Christmann, and Sheri Haugen-Hoffart.

Mollie M. Smith and Bridget A. Duffus, Fredrikson & Byron, P.A., 200 South 6th Street, Suite 4000, Minneapolis, MN 55402 on behalf of the Applicant, Badger Wind, LLC.

Mitchell D. Armstrong, Special Assistant Attorney General, 122 East Broadway Ave., Bismarck, North Dakota 58501, North Dakota Public Service Commission.

Kevin Pranis, 81 East Little Canada Road, St. Paul, Minnesota 55117, representative of Intervenor Laborers District Council of Minnesota and North Dakota.

Hope L. Hogan, Administrative Law Judge, Office of Administrative Hearings, 2911 North 14th Street, Suite 303, Bismarck, North Dakota 58502, as Procedural Hearing Officer.

Preliminary Statement

On February 25, 2022, Badger Wind, LLC (Badger Wind) filed an Application for a Certificate of Site Compatibility (Application) for an approximately 251.6-megawatt (MW) wind energy conversion facility known as the Badger Wind Project, to be located in Logan and McIntosh Counties, North Dakota (Project).

On May 17, 2022, the North Dakota Public Service Commission (Commission) issued a Notice of Filing and Notice of Hearing (Notice). The Commission scheduled a public hearing for June 28, 2022, at 9:30 a.m., at Wishek Civic Center, 715 1st Avenue South, Wishek, North Dakota 58495. The Notice identified the following issues to be considered:

1. Will the location and operation of the proposed facility produce minimal adverse effects on the environment and upon the welfare of the citizens of North Dakota?

2. Is the proposed facility compatible with the environmental preservation and the efficient use of resources?
3. Will the proposed facility location minimize adverse human and environmental impact while ensuring continuing system reliability and integrity and ensuring that energy needs are met and fulfilled in an orderly and timely fashion?

On May 24, 2022, Badger Wind filed a letter agreeing to waive the requirement in North Dakota Century Code (NDCC) section 49-22-16(4) that state agencies must submit comments on an application at least 30 days prior to the public hearing, and stating that Badger Wind agrees to accept comments from agencies regarding the Project up until the date of the public hearing.

On May 25, 2022, the Commission deemed the Application complete. The Commission's written motion conditioned completeness on receipt, at least 30 days prior to the hearing, of the final site layout plan, including Figures 1 through 11 of the Application with the associated GIS shapefiles and all updated studies, including updated sound, shadow flicker, and telecommunications studies. However, per discussion at the May 25, 2022, regular Commission meeting, the motion was modified to limit the 30-day filing requirement to the final site layout plan and updated figures/GIS, since Badger Wind had waived the requirement in Section 49-22-16(4) of the NDCC that state agencies must submit comments on an application at least 30 days prior to the public hearing.

On May 26, 2022, Badger Wind filed updated Figures 1 through 11, which included the final site layout plan, and associated GIS data in support of the Application.

On June 14, 2022, the Laborers District Council of Minnesota and North Dakota (LIUNA) filed a Petition to Intervene.

On June 15, 2022, ALJ Hogan issued an Order granting LIUNA's Petition to Intervene.

On June 23, 2022, LIUNA filed prefiled testimony of Steve Cortina and Kevin Pranis and a case study of the Badger Wind Project.

On June 28, 2022, the public hearing was held as scheduled.

Having allowed all interested persons an opportunity to be heard, and having heard, reviewed, and considered all testimony, filings, and evidence presented, the Commission makes the following:

FINDINGS OF FACT

1. Applicant, Badger Wind, LLC, is a Delaware limited liability company and is a wholly owned, indirect subsidiary of Ørsted Onshore North America, LLC (Ørsted).

2. Badger Wind is authorized to do business in the State of North Dakota, as evidenced by the Certificate of Good Standing issued by the North Dakota Secretary of State on January 13, 2022 (Case No. PU-22-085).

3. The Project will be owned and operated by Badger Wind.

Size, Type and Preferred Location of Proposed Wind Project

4. Badger Wind proposes to construct the Project within approximately 31,467 acres in Logan and McIntosh Counties, North Dakota (Project Area) as depicted in Figure 2 in Hearing Exhibit # 2. The Project consists of up to 79 wind turbines and will have a nameplate capacity of up to 251.6 MW.

5. Badger Wind has not yet selected a specific turbine model for the Project. For all 79 proposed turbine locations, Badger Wind sited the locations to comply with applicable setbacks for a turbine up to 322.5 feet in hub height, with an up to 459.3 foot rotor diameter, and with a total tip height of 551.2 feet.

6. The number of turbines constructed is dependent upon the final turbine model or models selected by Badger Wind; however, the turbine locations will not change. The turbine model or models will use all or a subset of the 79 proposed turbine locations.

7. Additional facilities associated with the Project will include access roads, improvements to existing roads as needed, underground electrical collection and communication systems with aboveground junction boxes, a collection substation, an operation and maintenance facility, up to three permanent meteorological evaluation towers (MET), light-mitigating technology components, a temporary three acre batch plant, a fifteen acre laydown area for construction offices, a seven acre multi-purpose laydown area, a ten acre marshaling yard to assist with logistics, crane paths, staging areas, and temporary road/intersection improvements.

8. Foundation size and design will be finalized based on the results of the geotechnical analyses conducted once the turbine model(s) is selected.

9. The Project will have a Supervisory Control and Data Acquisition (SCADA) system for remote monitoring, reporting, troubleshooting, and control of turbine equipment and performance.

10. Construction of the Project is anticipated to begin as soon as September 2022 and be completed as soon as the Fourth Quarter of 2023. Commercial testing is anticipated to take place after construction is complete, with commercial operations expected in the Fourth Quarter of 2023.

11. The Project will interconnect to the grid at the Montana-Dakota Utilities Co. Wishek Junction 230-kV substation located in McIntosh County, North Dakota. To interconnect the Project to the grid, Badger Wind will construct an approximately 0.75-mile

transmission line between the Project substation and the Wishek Junction 230-kV substation.

12. The Project will be constructed pursuant to National Electrical Safety Code (NESC) and National Electric Code (NEC) requirements.

13. Badger Wind testified all easement agreements and options necessary for the siting and construction of the Project and associated facilities have been obtained.

14. The estimated total cost to construct the Project is approximately \$390 million.

Study of Preferred Location for the Wind Project

15. Badger Wind performed a desktop evaluation of the Project Area for soils, land use, wetlands and waterbodies, woodlands, and protected species and critical habitats.

16. Woodlands comprise less than one percent of the total Project Area. If trees or shrubs are impacted by the Project, Badger Wind will coordinate with landowners regarding tree removal and replacement and comply with the Commission's tree and shrub mitigation specifications.

17. Wetland delineations were completed for the Project with the exception of the one collection line that has been re-routed to avoid an archaeological site. Badger Wind will conduct wetland delineations of the collection line re-route described above and will file the results with the Commission prior to beginning construction in that area. In the event the Project layout changes from what is depicted in Hearing Exhibit No. 2, Badger Wind will complete a wetland delineation of any previously unsurveyed areas.

18. Badger Wind has designed the Project to minimize temporary wetland impacts. Where collection lines intersect a wetland, impacts will be avoided by boring beneath the wetlands. Wetland impacts are anticipated to be less than the threshold for a U.S. Army Corps of Engineers (USACE) Clean Water Act Nationwide Permit.

19. The Project avoids permanent impacts to delineated wetlands with the exception of one access road that will cross a field-delineated drainage wetland that parallels an existing road, resulting in a permanent impact to this wetland of less than 0.01 acre. This wetland extends across the property. Badger Wind has sited this access road in the location of an existing farm road to minimize impacts to this wetland. Additionally, a culvert will be installed where the road crosses the drainage to facilitate continued wetland function and local hydrology. This impact will be self-certified under the USACE Clean Water Act Nationwide Permit program. Badger Wind has demonstrated that there is no reasonable alternative to impacting this wetland.

20. United States Fish and Wildlife Service (USFWS) wetland easements are present in the northeastern portion of the Project Area. Impacts are anticipated to occur within USFWS wetland easements. Badger testified the Project obtained leases for these

parcels prior to the USFWS obtaining the easements. Nevertheless, Badger Wind has been coordinating with the USFWS Kulm office to determine best approaches for construction to avoid permanent and minimize temporary impacts to the USFWS wetland basins.

21. Underground collection lines are sited on USFWS grassland easements in two areas. Badger Wind has consulted with the USFWS Kulm office and will bore collection lines under the USFWS grassland easements to avoid impacts.

22. Badger Wind conducted environmental studies of the Project Area, and impacts to wildlife are anticipated to be minimal. Among the studies conducted were:

A. Avian Surveys. Badger Wind conducted baseline general avian use surveys, fixed-point avian use surveys, and aerial and ground-based eagle and raptor nest surveys. The surveys identified avian species and raptor and eagle nests within and/or near the Project Area. No known, active golden eagle nests were identified within the Project Area or within ten miles of it. One active bald eagle nest and one alternate nest were identified within the Project Area but are located more than two miles from Project turbine locations.

B. Whooping Crane Stopover Habitat Analysis. Based on the potential use of the Project Area by whooping cranes, Badger Wind conducted a whooping crane habitat assessment to understand what potential stopover habitat exists within the Project Area and how that habitat compares to the habitat present in surrounding areas. The assessment indicated that potential whooping crane stopover habitat is present in the Project Area, but the habitat is of relatively lower quality and quantity compared to the nearby reference areas analyzed.

C. Sharp-Tailed Grouse Lek Surveys. The surveys found two confirmed lek locations within the current Project Area boundary, four confirmed and one possible lek locations within one mile of the Project Area boundary, and seven confirmed and one possible lek locations more than one mile from the Project Area boundary. Badger Wind retained Western EcoSystems Technology, Inc. (WEST) to develop a Plains Sharp-Tailed Grouse Conservation Strategy to minimize potential impacts to sharp-tailed grouse. The majority of turbines are sited in areas that are not suitable for sharp-tailed grouse, and all turbines located in identified suitable habitat are sited in previously fragmented areas, which helps minimize impacts to the local sharp-tailed grouse population.

D. Acoustic Bat Monitoring and Bat Habitat Assessment. Bat activity in the Project Area is relatively low. No northern long-eared bat (NLEB) calls were confirmed, although there were two unconfirmed calls from the *Myotis* species group, which includes the NLEB. The desktop Bat Habitat Assessment found that potentially suitable habitat for NLEB is limited within the Project Area. The results of the acoustic monitoring and habitat assessment indicate the potential for NLEB to occur in the Project Area is low.

E. Grassland Assessment. Badger Wind conducted desktop and field verifications of unbroken grassland within the Project Area. No turbines are located on unbroken grasslands. Additionally, Badger Wind sited turbines in already fragmented areas to minimize potential impacts to grassland species.

23. Badger Wind has prepared a Bird and Bat Conservation Strategy (BBCS) (Hearing Exhibit No. 28), which outlines specific avoidance, minimization, and mitigation measures.

24. Badger Wind completed a Class I Archeological Literature Review of a larger potential Project Area plus a one-mile buffer, and Class III Cultural Resources Inventories of all areas that might be impacted by construction of the Project.

25. The Class III Inventories identified one Site Lead and seven archaeological sites that are unevaluated for listing in the National Register of Historic Places (NRHP), and these sites will be avoided. Badger Wind incorporated the State Historical Society of North Dakota's (SHSND) comments and recommendations into the Class III reports. With the exception of the Class III report for a recently re-routed collection line area, Badger Wind has received concurrences from the SHSND for the Class III reports. Badger Wind will obtain and file a copy of SHSND's concurrence for the re-routed collection line Class III report with the Commission prior to beginning construction in the area.

26. In the event any element of the Project layout changes from the layout provided in Hearing Exhibit No. 2, Badger Wind will do the following: complete Class III cultural resource survey work for any previously unsurveyed areas, per SHSND's guidance; submit the findings to SHSND for review; and obtain and file with the Commission a copy of SHSND's concurrence prior to beginning construction in those areas.

27. Badger Wind completed a Class I Literature Review and Class II Architectural Reconnaissance Inventory Survey for structures 45 years of age or older within a two-mile visual area of potential effect of potential turbine locations. The Class II Survey identified five architectural resources and one contributing resource that are recommended as potentially eligible for listing in the NRHP, but the Project is not anticipated to have an adverse direct or indirect impact on them. SHSND concurred with the Class II survey report.

28. Project facilities will avoid identified cultural resource sites; thus, cultural resources are not expected to be impacted by the Project.

29. NDCC Section 49-22-16(4) provides that a site shall not be designated that violates the rules of any state agency, and that compliance with an agency's rules shall be presumed if the agency fails to present its position with respect to the proposed facility at the public hearing. The federal, state and local departments, agencies and entities that were consulted and provided comment are as follows:

A. Federal – U.S. Department of Defense (DOD); U.S. Army Corps of Engineers (USACE), North Dakota Regulatory Office; Federal Aviation

Administration (FAA); United States Department of Commerce – National Telecommunications and Information Administration (NTIA); USFWS; U.S. Department of the Interior, Bureau of Land Management (BLM); and U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS).

B. State – North Dakota Aeronautics Commission (NDAC); North Dakota Department of Environmental Quality; North Dakota Department of Trust Lands; North Dakota Game and Fish Department (NDGF); North Dakota Department of Water Resources; North Dakota Parks & Recreation; North Dakota Department of Transportation (NDDOT); North Dakota Geological Survey; and SHSND.

C. Local – Wishek Municipal Airport; Logan County Zoning Commission and Board of County Commissioners; Logan County Weed Board; McIntosh County Board of Commissioners; McIntosh County Weed Board; and Red Lake Township Board of Supervisors.

30. Agency consultations and comments are noted in Appendix D of the Application and in the exhibits and the testimony presented at the public hearing.

31. NDCC Section 49-22-16(2) provides that no energy conversion facility site shall be designated that violates any local land use, zoning or building rules, regulations or ordinances. Badger Wind obtained a wind energy facility siting permit/conditional use permit for the Project from Logan County on May 11, 2022. McIntosh County does not have zoning regulations. Badger Wind will comply with applicable county zoning ordinance requirements.

Siting Criteria

32. North Dakota Administrative Code (NDAC) Section 69-06-08 sets forth certain criteria to guide the Commission in evaluating the suitability of granting an application for a certificate of site compatibility. The criteria, as set forth in NDAC Section 69-06-08-01 are classified as Exclusion Areas, Avoidance Areas, Selection Criteria and Policy Criteria.

33. Five Exclusion Areas specific to wind energy conversion facilities are present within the Project Area: (a) areas less than 1.1 times the height of the turbine from the nearest edge of an interstate or state roadway right-of-way; (b) areas less than 1.1 times the height of the turbine plus 75 feet from the centerline of any county or maintained township roadway; (c) areas less than 1.1 times the height of the turbine from the nearest edge of any railroad right-of-way; (d) areas less than 1.1 times the turbine height from the nearest edge of a 115 kV or higher transmission line right-of-way; and (e) areas less than 1.1 times the turbine height from the property line of a non-participating landowner and three times the height of the turbine from an inhabited rural residence of a non-participating landowner, unless a variance has been granted. No turbines will be located within these Exclusion Areas.

34. All setbacks are measured from the closest edge of the turbine tower base to the closest edge of the applicable feature.

35. No other exclusion areas as defined by NDAC Section 69-06-08-01(1) are identified with respect to the Project.

36. NDAC Section 69-06-08-01(3) identifies various avoidance areas. An energy conversion facility must not be sited within an Avoidance Area unless the applicant shows that under the circumstances there is no reasonable alternative. In determining whether an Avoidance Area should be designated for a facility, the Commission may consider, among other things, the proposed management of adverse impacts; the orderly siting of facilities; system reliability and integrity; the efficient use of resources; and alternative sites.

37. Cultural resources are present within the Project Area, but the Project has been sited to avoid cultural resource sites. An Unanticipated Discovery Plan has been developed and was reviewed by SHSND.

38. Wetlands are present within the Project Area, but the Project has been sited to avoid and/or minimize permanent and temporary impacts to delineated wetlands. Where collection lines intersect a wetland, temporary impacts will be avoided by boring beneath the wetland. One access road will cross a field-delineated drainage wetland that parallels an existing road, resulting in less than 0.01 acres of permanent impacts to wetlands. Badger Wind has sited this access road in the location of an existing farm road to minimize impacts to this wetland, and a culvert will be installed where this access road crosses a drainage to facilitate continued wetland function and local hydrology. The wetland functionality will continue, and the access road placement minimizes overall environmental impacts. Wetland impacts will be covered by one or more USACE Nationwide Permits.

39. Minimal trees and shrubs are located within the Project Area. The Project has been designed to minimize tree removal to the extent possible. Badger Wind will minimize temporary impacts to trees. Any tree and shrub removal and replacement will be conducted in accordance with the Commission's tree and shrub mitigation specifications. Badger Wind may need to clear up to 100 feet in limited areas in order to collocate collection lines, access roads, and/or crane walks adjacent to one another. Badger Wind requested Commission approval to remove trees and/or shrubs from an area wider than 50 feet in these locations.

40. No other avoidance areas identified in NDAC Section 69-06-08-01(3) are identified with respect to the Project.

41. In accordance with the Commission's Selection Criteria, a site may be approved if it is demonstrated that any significant adverse effects resulting from the location, construction, and operation of the energy conversion facility will be at an acceptable

minimum or that the effects will be managed and maintained at an acceptable minimum. In accordance with the Commission's Policy Criteria, preference may be given to an applicant demonstrating certain benefits of the proposed energy conversion facility in accordance with NDAC Section 69-06-08-01(6).

42. With all 79 proposed turbine locations and associated facilities, the Project would occupy up to approximately 78 acres of land, or approximately 0.25 percent of the total Project Area, during the life of the Project. Badger Wind will continue to work with landowners to minimize land use disruptions from the siting of the facilities. No impacts to the quality of the agricultural land are anticipated.

43. Badger Wind submitted evidence demonstrating any significant adverse effects resulting from the location, construction, and operation of the Project as they relate to the Selection Criteria set forth in NDAC Section 69-06-08-01(5) will be at an acceptable minimum or managed and maintained at an acceptable minimum.

44. During construction, the Project will likely result in a temporary increase in traffic on county and township roads. The increase in traffic during construction is not expected to be at a volume that will significantly disrupt residents or travel in the Project Area. Haul road permits will be obtained from applicable townships, McIntosh and Logan Counties, and NDDOT, if needed. Badger Wind has entered into road use and maintenance agreements with Logan County and McIntosh County. County and township roads will be restored in accordance with the Signed Certification Relating to Order Provisions Wind Energy Conversion Facility Siting (dated June 7, 2022). During operation, no adverse effects to transportation facilities or networks are anticipated.

45. The Project will not have significant adverse impacts on the ability of the affected area to provide community services, such as housing, health care, educational services, police and fire protection, water and sewer, or solid waste management.

46. Badger Wind coordinated with USFWS and NDGF with respect to the Project. From early 2020 through to the present, Badger Wind has engaged in coordination with USFWS and NDGF on surveys and protocols, Project site selection, turbine placement, avoidance and minimization measures, and voluntary offsets. Both agencies recommended avoidance of unbroken grassland to minimize potential impacts to grassland species, and both agencies acknowledged the changes Badger Wind made to reduce potential Project impacts to unbroken grasslands. Although there was some inconsistency regarding the location of turbines and unbroken grasslands on certain maps entered into evidence, a Grassland Habitat Assessment (Hearing Exhibit 9) was completed and Badger Wind testified no turbines are sited within unbroken grasslands. Additionally, the majority of turbine locations are in areas that are not suitable for grassland species habitat, and all turbines in suitable habitat are sited in already fragmented areas.

47. In its May 27, 2022 letter, NDGF requested Badger Wind update the BBCS to address direct and indirect impacts to waterfowl and grassland breeding birds. In its June

27, 2022 letter, USFWS similarly requested Badger Wind update the BBCS. Badger Wind has updated its BBCS and will continue to coordinate with NDGF and USFWS throughout Project development, construction, and operation.

48. Based on the totality of the evidence presented, the Commission finds Badger Wind has sited the Project to minimize potential impacts to wildlife.

49. Badger Wind conducted sound analyses for the Project. Seven inhabited residences were modeled above 45 dBA within 100 feet of the receptor. However, Badger Wind has secured wind energy lease agreements and easements, which include waivers of the sound requirement, from the owners of six of these residences. Badger Wind has also secured a good neighbor agreement, which includes a waiver of the sound requirement, from the owner of the remaining inhabited residence. All other receptors, both participating and non-participating, are modeled below 45 dBA within 100 feet of the receptor. Accordingly, sound levels within 100 feet of an inhabited residence or community building will not exceed 45 dBA, unless waived in writing by the owner of such residence or building.

50. Badger Wind conducted shadow flicker analyses for the Project. Based on the shadow flicker analysis, one inhabited residence is modeled at 38 hours per year of shadow flicker. However, Badger Wind has secured a wind energy lease agreement and easement, which include a shadow flicker waiver, from the owner of that residence. All other inhabited residences, both participating and non-participating, are modeled below 30 hours per year or less of shadow flicker. Accordingly, the Project will comply with Badger Wind's voluntary commitment of 30 hours per year or less of shadow flicker at all residences, absent a waiver.

Measures to Minimize Impacts

51. Badger Wind has agreed to the measures to mitigate Project impacts, as indicated by the attached Certification Relating to Order Provisions Wind Energy Conversion Facility Siting, with accompanying Tree and Shrub Mitigation Specifications (dated June 7, 2022). Unless additional Commission approval is obtained, Badger Wind is authorized to clear trees and shrubs in the Project Area up to 100 feet in limited areas only where it is necessary to collocate collection lines, access roads, and/or crane walks.

52. Based on the current Project layout, as depicted in Hearing Exhibit No. 2, all Project turbines are located at least 1,653.6 feet (three times maximum turbine tip height) from currently occupied residences of nonparticipating landowners.

53. Subject to FAA approval, Badger Wind will install and operate an ADLS or other technology suitable to the Commission on the Project in accordance with NDCC Section 49-22-16.4.

54. Badger Wind will use best management practices (BMPs) to minimize impacts on ground and surface water, and to prevent soil erosion. Badger Wind will implement

appropriate erosion control measures. Badger Wind will obtain coverage under the North Dakota Pollutant Discharge Elimination System (NDPDES) General Construction Permit and develop a Storm Water Pollution Prevention Plan. Construction of the Project is not anticipated to have a significant adverse impact on surface or ground water resources or soils.

55. Badger Wind will participate in the North Dakota One-Call Excavation Notice System.

56. Badger Wind will coordinate with local authorities and emergency service providers to determine appropriate safety precautions and standards. Badger Wind has developed an initial Emergency Response Plan (Hearing Exhibit No. 16), which will be finalized in coordination with emergency service providers to implement these precautions and standards.

57. Lightning and grounding protection for all wind farm equipment is designed and constructed to be compliant with all applicable NESC and NEC requirements.

58. Badger Wind will comply with the Commission's decommissioning rules, including filing a decommissioning plan with the Commission prior to the commencement of operation of the Project, and performing decommissioning in accordance with all applicable rules and regulations.

Additional Issues

59. LIUNA intervened in this proceeding and submitted testimony relating to the benefits of hiring a local labor force for energy conversion and transmission projects. Badger Wind's application indicated approximately 400 temporary personnel, both skilled and unskilled, would be required for project construction and up to ten full-time workers will be required during operations. Badger Wind indicated that prior to construction, it will host an event to procure local workers and will encourage its contractor to source materials and the construction labor force from within North Dakota and/or areas near the Project to the extent commercially reasonable.

60. Jessica Bell (on behalf of North American Coal Corporation (NAC)) provided public testimony and exhibits in opposition to the Project. NAC expressed concerns about the national energy policy trending away from the use of fossil fuels such as coal and the impacts on the citizens of North Dakota. It expressed concerns about whether the market was demanding this power or whether the Project is being driven by Production Tax Credits and other subsidies. NAC also expressed concerns about displacement and destabilization that may occur with injecting power from the Project into the electric grid. NAC questioned what effect the Project would have on the welfare of the citizens of North Dakota and continued system reliability and ensuring energy needs are met and fulfilled in an orderly and timely fashion. NAC emphasized Badger Wind has no purchaser for the power generated by the Project at this time and asserted using existing coal facilities instead of building this Project minimizes adverse effects. NAC contends operation of

this facility “potentially” puts coal plants and coal mines in this state in further economic jeopardy. It also asserted renewable energy sources increase reliability risks in the MISO grid and change the risk profile of the grid.

61. Dave Nehring testified regarding the importance of the lignite industry to the State. He testified the lignite industry creates more jobs per megawatt than intermittent energy. Additionally, he testified labor income and state and local revenues were far greater from coal than intermittent energy. He expressed concern about the reliability of the electric grid by continuing to add intermittent energy sources.

62. Mark Pierce is a coal miner and testified on behalf of Faces of North Dakota Coal, which he described as a grassroots advocacy group. He testified that the Project and others like it threaten the stability of the electric grid due to displacing baseload electrons with subsidized intermittent energy. He provided information regarding MISO notifications/alerts since May 13, 2022. These included a Max Gen Alert on May 13, 2021, for the Central Region; a Max Gen Alert on May 18, 2022, for the South Region; a Max Gen Alert on June 15, 2022, for the Market footprint; and a Capacity Advisory on June 21, 2022, for the Market footprint. He also provided information that this area had negative locational marginal pricing the day prior to the hearing and at the time of the hearing there remained negative locational marginal pricing. He expressed concern about the location of the Project because it is in an area of high congestion, binding restraints, and negative pricing without sufficient transmission infrastructure. He testified his position was not “anti-wind” development as he supports wind development that is a comprehensive energy solution for North Dakota, such as wind development that will not displace baseload electrons.

63. The Commission understands and appreciates the concerns expressed by NAC, Mr. Nehring, and Mr. Pierce. In fact, the Commission shares many of those concerns. However, the evidence presented by them is, in large part, not specific to this Project. Instead, as admitted, their concerns primarily involve policy decisions at the federal or multi-state level creating an unfair marketplace. There was no evidence indicating what effect this particular Project will have on the areas of concern, such as how or even if this Project will have an impact on the electric rates of North Dakota ratepayers. Further, it is questionable whether costs to ratepayers is an appropriate criteria under the Siting Act. Regardless, there is no evidence in this record to determine what impact, if any, this Project may have on rates or reliability in North Dakota. Overall, the areas of concern involve broad policy issues, which are not part of the Commission’s siting criteria. There is no evidence what impact this Project has on the areas of concern separate from any other wind farm project. Similarly, no legal authority was provided to convince the Commission that it has the power to deny siting this Project for the reasons asserted.

From the foregoing Findings of Fact, the Commission makes the following:

CONCLUSIONS OF LAW

1. The Commission has jurisdiction over this proceeding under NDCC Chapter 49-22.
2. The electric wind energy conversion facility proposed by Badger Wind is an electric energy conversion facility as defined in NDCC Section 49-22-03(5).
3. The Application submitted by Badger Wind meets the site evaluation criteria as required by NDCC Chapter 49-22.
4. The location, construction, and operation of the proposed electric energy conversion facility will produce minimal adverse effects on the environment and upon the welfare of the citizens of North Dakota.
5. The proposed electric energy conversion facility is compatible with environmental preservation and the efficient use of resources.
6. The proposed electric energy conversion facility location will minimize adverse human and environmental impact while ensuring continuing system reliability and integrity and ensuring that energy needs are met and fulfilled in an orderly and timely fashion.
7. The Commission has jurisdiction to ensure compliance with NESC standards in the construction and operation of the Project.

From the foregoing Findings of Fact and Conclusions of Law, the Commission issues the following:

ORDER

The Commission orders:

1. Certificate of Site Compatibility No. 64 for an Energy Conversion Facility is issued to Badger Wind, LLC for the construction, operation, and maintenance of a wind energy conversion facility known as the Badger Wind Project corresponding to the Project Area depicted in Hearing Exhibit Number 2.
2. Within the designated site, as depicted in Hearing Exhibit No. 2, Badger Wind is authorized to site, construct, operate, and maintain wind turbines and associated equipment, access roads and improvements to existing roads, an O&M facility, a substation, up to three permanent meteorological towers, light-mitigating technology components, and an underground electrical collection and communication system with aboveground junction boxes and/or underground splices, as well as any other associated

facilities identified in the Application, at the hearing and in any supplemental filings. No turbines are to be sited in unbroken grasslands. If field conditions reflect all or part of a turbine will be located in unbroken grasslands, Badger Wind must adjust the location of the turbine to avoid unbroken grasslands.

3. Badger Wind will complete a wetland delineation on the collection line re-route and will file the results with the Commission prior to beginning construction in the area (see Finding No. 17). Badger Wind will obtain and file a copy of SHSND's concurrence on its Class III cultural resource survey report for the collection line re-route prior to beginning construction in said area (see Finding No. 25).

4. If modifications are made to the Project layout, Badger Wind will complete a Class III cultural resource survey for any previously unsurveyed portions of the designated site affected by Project-related construction activities; will submit cultural resource findings to SHSND for review; and will obtain and file a copy of SHSND's response with the Commission prior to beginning construction in those areas.

5. If modifications are made to the Project layout, Badger Wind will complete a wetland delineation of any previously unsurveyed areas affected by Project-related activities, as necessary.

6. Badger Wind shall comply with the Commission's Avoidance Area sound requirement. In the event Project modifications occur that are not covered by its current sound analysis, Badger Wind will conduct a sound analysis to ensure that the Project complies with the Commission's Avoidance Area sound requirement.

7. Badger Wind shall site Project turbines so as to meet a shadow flicker goal of 30 hours per year or less at each currently inhabited residence, considering site-specific conditions, unless otherwise agreed to by the landowner. When final turbine selections are completed, or in the event Project modifications occur that are not covered by its current shadow flicker analysis, Badger Wind shall conduct further shadow flicker analysis to ensure this requirement is met.

8. The June 7, 2022, Certification Relating to Order Provisions Wind Energy Conversion Facility Siting, with accompanying Tree and Shrub Mitigation Specifications (Hearing Exhibit No. 27) is incorporated by reference and attached to this Order. To the extent there are any conflicts or inconsistencies between the Wind Project application and the Certification, the Certification provisions control. Unless additional Commission approval is obtained, Badger Wind is authorized to clear trees and shrubs in the Project Area up to 100 feet in limited areas only where it is necessary to collocate collection lines, access roads, and/or crane walks.

9. Prior to commencing construction of any portion of the Project, Badger Wind shall obtain all other necessary licenses and permits for the construction of such portion and provide copies to the Commission.

PUBLIC SERVICE COMMISSION

"Nay"

Randy Christmann
Commissioner

Julie Fedorchak

Julie Fedorchak
Chair

Sheri Haugen-Hoffart

Sheri Haugen-Hoffart
Commissioner

PUBLIC SERVICE COMMISSION

STATE OF NORTH DAKOTA

Certificate of Site Compatibility Number 64

This is to certify that the Commission has designated an energy conversion facility site for Badger Wind, LLC, for the construction and operation of a wind energy conversion facility and associated facilities in Logan & McIntosh Counties, North Dakota.

The facility may be sited in this designated location in compliance with the energy conversion facility siting criteria. This certificate is issued in accordance with the Findings of Fact, Conclusions of Law and Order of the Commission in Case No. PU-22-86 dated November 30, 2022, and is subject to the conditions and limitations noted in the order.

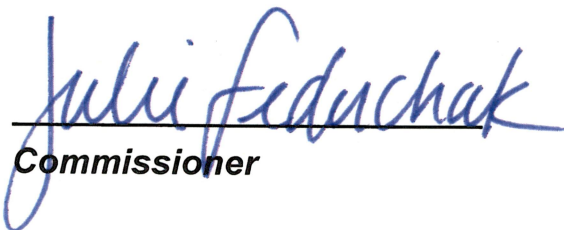
Bismarck, North Dakota, November 30, 2022.

ATTEST:

PUBLIC SERVICE COMMISSION



Executive Secretary



Commissioner

**STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION**

**Badger Wind, LLC
251.6 MW Badger Wind Project – Logan & McIntosh
Siting Application**

Case No. PU-22-86

**CERTIFICATION RELATING TO ORDER PROVISIONS
WIND ENERGY CONVERSION FACILITY SITING**

I am Philip C. Moore, Senior Vice President of Badger Wind, LLC (“Company”) with authority to bind Company to requirements to be set forth by the Commission in its Order and I certify the following:

1. Company understands and agrees that the Certificate of Site Compatibility will be issued by the Commission subject to the conditions and criteria set forth in Chapter 49-22 of the North Dakota Century Code and Chapter 69-06-08 of the North Dakota Administrative Code, and that Company shall be responsible for compliance with this order and conditions and criteria set forth in the applicable laws and rules.
2. Company agrees to comply with the rules and regulations of all other agencies having jurisdiction over any phase of the proposed energy conversion facility including all city, township, and county zoning regulations.
3. Company understands and agrees that it shall obtain all other necessary licenses and permits, and shall provide copies of all licenses and permits to the Commission prior to construction activity associated with the energy conversion facility that requires said license or permit.
4. Company understands and agrees that the Certificate of Site Compatibility is subject to suspension or revocation and may, in an appropriate and proper case, be suspended or revoked for failure to comply with the Commission’s order, the conditions and criteria of the certificate or subsequent modification, or failure to comply with the applicable statutes, rules, regulations, standards, and permits of other state or federal agencies.
5. Company agrees to maintain records that will demonstrate that it has complied with the requirements of the Commission’s order and the Certificate of Site Compatibility, and that it will preserve these records for Commission inspection at any reasonable time upon reasonable notice.
6. Company understands and agrees that the authorizations granted by the Certificate of Site Compatibility for the energy conversion facility are subject to modification by

order of the Commission if deemed necessary to protect further the public or the environment.

7. Company is aware that under North Dakota Century Code section 49-02-27 the Commission has rules for decommissioning of wind energy conversion facilities. Company agrees to comply with all decommissioning rules adopted by the Commission.

Construction:

8. Company agrees to hold a preconstruction conference prior to commencement of any construction, which must include a Company representative, its construction supervisor, and a representative of Commission Staff, to ensure that Company fully understands the conditions set forth in the Commission's order.
9. Company understands and agrees that all cultural resource mitigation plans must be approved by the North Dakota State Historic Preservation Office prior to the start of any fieldwork and construction activity in the affected area.
10. Company understands and agrees that topsoil removal will begin when the Commission's third party construction inspector is present at the Project site to observe that topsoil is properly removed and kept segregated from subsoil until replacement occurs. Company shall establish the date and time for the Commission's third-party construction inspector's topsoil removal oversight in the preconstruction conference.
11. Company agrees to inform the Commission and the Commission's third-party construction inspector of its intent to start construction on the energy conversion facility prior to the commencement of construction. Once construction has started, Company shall keep the Commission and the Commission's third-party construction inspector updated of construction activities on a monthly basis.
12. Company is aware that North Dakota law requires that all companies that own or operate electric generation of any size for the primary purpose of resale must comply with the standards of the National Electrical Safety Code in effect at the time of construction of the generation facility, and agrees to comply with that requirement.
13. Company agrees to construct and operate the energy conversion facility in accordance with all applicable safety requirements.
14. Company understands and agrees that it shall bury all underground collection and feeder lines to a depth of at least 48 inches to the top of the lines.
15. Company understands and agrees that topsoil, up to 12 inches, or topsoil to the depth of cultivation, whichever is greater, over and along trench areas, roadways, tower

locations, and locations of associated facilities must be carefully stripped and segregated from the subsoil. Any area on which excavated subsoil will be placed must first be stripped of topsoil. The stripped topsoil must not be stockpiled in natural drainages, and must be protected from water erosion. Care must be taken to protect topsoil from unnecessary compaction by heavy machinery. Unless otherwise approved by the Commission, topsoil must be removed before topsoil freezes in the late fall/early winter to the point that frost inhibits proper soil segregation. After backfilling with subsoil is completed, any excess subsoil must be placed over the excavation area, blending the grade into existing topography. Topsoil must be replaced over areas from which it was stripped only after the subsoil is replaced.

16. Company understands and agrees that all buried facility crossings of graded roads shall be bored unless the responsible governing agency specifically permits Company to open cut the road.
17. Company understands and agrees that staging areas or equipment shall not be located on land owned by a person other than Company unless otherwise negotiated with landowners.
18. Company understands and agrees that if any cultural resource, paleontological site, archeological site, historical site, or grave site is discovered during construction, it must be marked, preserved and protected from further disturbances until a professional examination can be made by the State Historical Society, and a report of such examination is filed with the Commission.
19. Company understands and agrees that construction must be suspended when weather conditions are such that construction activities will cause irreparable damage to roads or land, unless adequate protection measures are taken by Company.
20. Company understands and agrees that the Commission's third party construction inspector will be allowed ~~has authority~~ to stop Project construction activities to prevent an imminent hazard from occurring before the Commission could take formal action with respect to said activities. For purposes of this provision, "imminent hazard" means a condition that presents a substantial likelihood of death, serious illness, severe personal injury, or a substantial endangerment to health, property, or the environment. Other Project construction activities would be allowed to continue in the event of a probable violation of the siting laws, siting rules, or applicable Commission Orders if, in the opinion of the Commission, construction activities are likely to result in irreparable or significant harm.

Restoration and Maintenance:

21. Company agrees that it shall, as soon as practicable upon the completion of the construction of the energy conversion facility, restore the area affected by the activities to as near as is practicable to the condition as it existed prior to the

beginning of construction.

22. Company understands and agrees that all pre-existing township and county roads and lanes used during construction must be repaired or restored to a condition that is equal to or better than the condition prior to the construction of the energy conversion facility and that will accommodate their previous use, and that areas used as temporary roads or working areas during construction must be restored to their original condition.
23. Company understands and agrees that reclamation, fertilization, and reseeding is to be done according to the Natural Resources Conservation Service recommendations, unless otherwise specified by the landowner and approved by the Commission.
24. Company will fulfil its obligation for reclamation and maintenance of the approved site continuing throughout the life of the energy conversion facility.
25. Company will repair all fences and gates removed or damaged during all phases of construction and operation of the proposed energy conversion facility.
26. Company will repair or replace all drainage tile broken or damaged as a result of construction and operation of the proposed energy conversion facility.
27. Company agrees to comply with the Tree and Shrub Mitigation Specifications, attached.
28. Company understands and agrees that it shall work with landowners and residents to mitigate any increase in television and residential radio interference that results from the construction of the energy conversion facility.
29. Company understands and agrees that it shall remove all waste that is a product of construction and operation, restoration, and maintenance of the site, and properly dispose of it on a regular basis.
30. Company understands and agrees that it shall provide any necessary safety measures for traffic control or to restrict public access to the energy conversion facility.

Communication with Landowners and PSC:

31. Company agrees to provide the Commission with engineering design drawings showing surveyed structure and collection substation locations prior to construction.
32. Company understands and agrees that it shall advise the Commission as soon as reasonably possible of any extraordinary events which take place at the site of the energy conversion facility, including injuries to any person, a tower collapse, or a catastrophic turbine failure.

33. Company agrees to report to the Commission, as soon as reasonably possible, the presence in or near the approved site of any critical habitat of threatened or endangered species that Company becomes aware of and which were not previously reported to the Commission.
34. Company agrees to provide the Commission with both an electronic and a paper copy of the site approved by the Commission and the facility design specifications for the construction of the energy conversion facility showing the location of the energy conversion facility as built, and will provide this information within 3 months of the completion of the construction. Company also agrees to provide an electronic version of the site approved by the Commission and the facility design specifications for the construction of the energy conversion facility showing the location of the energy conversion facility as built that can be imported into ESRI GIS mapping software within 3 months of the completion of the construction. This electronic map data must be referenced to the North Dakota coordinate system of 1983, North and/or South zones US Survey feet (NAD 83) UTM Zone 13N or 14N feet (NAD 83), or geographic coordinate system (WGS 84) feet. The vertical data must be in the appropriate vertical datum for the coordinate system used. All submissions must specify the datum in which the data was developed.
35. Company shall notify the Commission, as soon as reasonably possible, if any damage, as defined by North Dakota Century Code Chapter 49-23, occurs to underground facilities during construction conducted under the certificate or permit issued in this proceeding. In the event of any damage to underground facilities, Company shall suspend construction in the vicinity of the damage until compliance with One-Call Excavation Notice System requirements under North Dakota Century Code Chapter 49-23 has been determined.
36. Company agrees that it shall provide, if requested, educational material for landowners within the site boundaries about the proposed energy conversion facility and any restriction or danger concerning the proposed energy conversion facility.
37. Company understands and agrees that it shall implement a procedure for how complaints concerning the proposed energy conversion facility will be handled by Company

Modification of Energy Conversion Facility or Energy Conversion Site Plan:

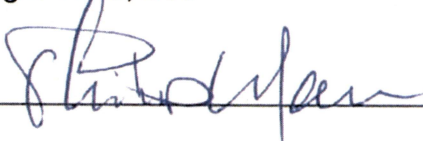
38. Before conducting any construction activities for any modification within the designated site, the Company will file the name and contact information for a key contact person for the purposes of notice and communication during the site modification application and will use the following procedures:
 - A. Before conducting any construction activities for any modification within the designated site, and such **construction activities will not affect any known exclusion or avoidance areas** within the designated site, the Company will file certification and supporting documentation:

1. Affirming that construction activities will not affect any known exclusion or avoidance areas within the designated site;
 2. Including a map meeting the requirements of N.D. Admin. Code § 69-06-04-01(2)(n) identifying the designated site and site modification(s); and
 3. Affirming that Company will comply with the Commission's order, law and rules designating the site.
- B. Before conducting any construction activities for any modification within the designated site, and such construction activities will not affect any known exclusion but **may affect an avoidance area** within the designated site, the Company will file:
1. A specific description of the avoidance area expected to be impacted, including a map meeting the requirements of N.D. Admin. Code § 69-06-04-01(2)(n) identifying:
 - a. the designated site and the site modification;
 - b. all exclusion and avoidance areas within the portion of the designated site containing the site modification.
 2. Certification and supporting documentation affirming that construction activities will not affect any known exclusion area.
 3. All field studies performed on the portion of the designated site containing the site modification;
 4. Specific information about any mitigation measures Company will take within the modification area;
 5. Certification that each owner of real property on which the modification is to be located and any applicable governmental entity with an interest in the same modification area do not oppose the modification;
 6. Certification that unless the Commission previously authorized the impact to the same avoidance area, that the utility has good cause and a specific reason to impact the avoidance area and a reasonable alternative does not exist;
 7. Certification that Company will comply with the Commission's order, law and rules designating the site.

39. Company acknowledges and agrees that written authorization from the Commission for impacting the avoidance area is necessary prior to commencement of construction activity.

Dated this 7th day of June, 2022.

Badger Wind, LLC

By 

Its Senior Vice President

**STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION**

**Badger Wind, LLC
251.6 MW Badger Wind Project – Logan & McIntosh
Siting Application**

Case No. PU-22-86

Tree and Shrub Mitigation Specifications

Inventory

Prior to cutting or clearing trees or shrubs for construction:

- All trees one-inch or greater in diameter at breast height must be inventoried to record the location, number, and species.
- All shrubs and all coniferous trees of any diameter must be inventoried to record the location, number, and species.

Clearing

The maximum width of tree and shrub removal is 50 feet, unless otherwise approved by the Commission.

Replacement

1. Landowners must be given the option to have trees and shrubs that are removed from their property replaced on their property. The landowner may waive this option in writing. If the landowner waives this option, the company shall plant replacement trees and shrubs in an alternate location in the same region, if practical.
2. Trees and shrubs must be replaced on a minimum two-to-one basis. The company shall develop a Tree and Shrub Mitigation Plan (Plan) in consultation with landowners who are seeking replacement trees and shrubs and in accordance with USDA-NRCS-North Dakota Field Office Technical Guide: Windbreak and Woodland Tree Care and Management. The guidelines outlined in the Technical Guide shall be followed until filing of the Plan summary outlined in number 5 below.
3. The purpose of the company's Tree and Shrub Mitigation Plan is to create sustainable plantings, appropriate for the local soil and growing conditions that will provide long-term benefit to landowners, farmers and ranchers, the community, wildlife and the environment.
4. The Plan, including the proposed number, variety, type, location, and approximate date for plantings, shall be filed with and approved by the Commission.
5. Two years after completion of the plan, the company must file a summary documenting how the plan achieved the purpose outlined in number 3 above. The summary must also report the number of surviving replacement trees and shrubs.
6. The Commission will consider, on a limited basis as conditions warrant, mitigation plans that provide long-term wildlife habitat and conservation benefits but do not involve the replanting of trees and shrubs.

Concurring Opinion
Commissioner Julie Fedorchak, Chair

Badger Wind, LLC
251.6 MW Badger Wind Project – Logan & McIntosh
Siting Application

Case No. PU-22-86

One fellow Commissioner voted against the permit for the Badger Wind generation facility citing concerns expressed by three advocates of the state's coal industry who attended the siting hearing. They requested that the Commission reject the application claiming the facility would exacerbate congestion on the grid, threaten reliability and negatively impact the economics of the North Dakota coal industry, thereby negatively impacting the welfare of North Dakota citizens. Commissioner Christmann further predicted that the project will increase costs to North Dakota ratepayers, also negatively impacting the welfare of our citizens.

While I have great respect for my colleague, I disagree with him on this case and reject these arguments for two reasons. I provide this concurring opinion to memorialize the rationale expressed in the order because I have serious concerns about the impact this case and decision could have on future permitting of energy infrastructure in North Dakota.

First, opponents did not provide factual evidence to substantiate their claims that this project would exacerbate congestion, threaten reliability, increase rates or decrease the run time of coal fired power plants in North Dakota. In fact, MISO, the entity responsible for operating the bulk power system, evaluated the impact of the project on the grid, identified the problems, and assigned the company \$18 million worth of grid improvements needed prior to receiving an interconnection agreement. Finding that this project jeopardizes grid reliability would require the Commission to substitute its judgement, based on a heat map and a few quotes from MISO documents, for MISO's multi-year interconnection study. This would be imprudent and likely indefensible in court.

Using customer bill impacts as a consideration for a siting permit is also riddled with problems. The Commission doesn't have authority over or insight into ratepayer impacts for many of the projects that come before us for a permit. In fact, projects are not required to have buyers prior to applying for a permit, and many don't. Therefore, identifying and examining rate impacts of potential energy infrastructure would be impossible. In this case, opponents didn't provide evidence that quantified in any way that this project would increase rates for North Dakota customers. Again, this Commission cannot reject a permit for a \$390 million investment based on unsubstantiated predictions.

Second, the issues expressed by opponents of this project stretch the interpretation of the siting act into areas not previously considered and in ways that will create significant complications and uncertainty long term. The siting act was initiated in the 1970s to provide a thoughtful, orderly and stable path for development of our state's abundant energy resources in a way that minimizes impact to the environment and the people living closest to the energy infrastructure. The law outlines 11 factors for the Commission to evaluate. Nine of the 11 factors call for minimizing impacts to the environment, cultural resources, and a litany of local resources. One factor requires the Commission to consider concerns of federal, state and local agencies. The remaining factor directs the PSC to consider direct or indirect economic impacts of the project. Traditionally, this factor has focused on job creation, property taxes and other economic benefits of proposed projects, as well as locational impacts to county roads, emergency personnel, water and sewer, power infrastructure, etc.

This Commission has a 45-year tradition of interpreting the siting law strictly. This has allowed North Dakota to maintain a fair, predictable, and open siting process that provides certainty to those investing in our state and results in projects that minimize environmental impact and are largely supported by their local communities. This regulatory certainty is a key part of North Dakota's successful energy industry.

Rejecting this project on the grounds proposed by opponents would represent a significant deviation from the way this Commission has traditionally considered permitting energy infrastructure. My colleague's rationale for rejecting this permit rests entirely on language included in the broad policy statement at the introduction of the siting act regarding the welfare of North Dakota citizens. That language is intended to describe the philosophy of the siting act, but it is not a factor or standard in and of itself. The criteria are defined within the many subsections of the act including the 11 specific factors policy makers outlined for us to consider.

Using a vague standard such as "welfare of the citizens of North Dakota," especially without a weighty record of facts to back it up, would throw 45 years of restrained, fact-based siting decisions out the window, significantly upending the long history of regulatory certainty this Commission has maintained and exposing future siting applications to any number of factors that opponents may claim negatively impact the welfare of North Dakota citizens.

I understand and appreciate the challenges the coal industry is experiencing as generating technology changes, renewable technologies flood the grid and electricity markets fail to properly compensate thermal generators for the full value they provide to maintaining reliability. Our nation's power grid was built around coal-fired power and the challenges facing coal-fired generation create a real threat to the reliability and stability of the grid.

I spend a significant amount of time working on solutions to these problems as the Commission's liaison to MISO and immediate past president of the Organization of MISO states. Meaningful market changes have recently been made and more are underway to appropriately compensate thermal resources such as coal fired power to ensure that it is fairly treated by the market and available to maintain a plentiful supply of reliable and affordable power to citizens in our state and region.

These challenges are real and urgent and do have consequences for North Dakota ratepayers. But they are not caused by or even exacerbated by the North Dakota siting process. Attempting to solve them by rejecting this project will not improve reliability, lower rates or solve the economic challenges facing our state's coal industry. Rather it will jeopardize our state's proven and reasonable siting process that is a source of strength for our citizens, communities, the environment, the energy industry and the broader business community. And in doing so we would threaten our state's ability to generate and export North Dakota's diverse and abundant energy resources to help power our nation and world.


Julie Fedorchak, Chair

DISSENT

Commissioner Randy Christmann

November 30, 2022

**Badger Wind, LLC
251.1 MW Badger Wind Project –Logan & McIntosh
Siting Application**

Case No. PU-22-86

Badger Wind's application for a Certificate of Site Compatibility should be denied. It will bring obvious and significant adverse effects upon the welfare of the citizens of this state.

During the public input portion of the Hearing we heard multiple people come forward to express opposition based primarily on concerns about the impact to electric reliability and to consumer prices. Among other things, they emphasized the fact that this project is to be constructed in an area of high congestion due to insufficient electric transmission infrastructure. (These congestion issues are well known by this Commission. MISO, the Regional Transmission Organization, is working on a solution)

Badger responded with Late Filed Exhibit #35. Among other things they addressed reliability by pointing out that if the growth in wind places financial pressure on coal, MISO can provide the coal plant with a guaranteed rate of return when needed for reliability. But this Commission knows that MISO will not pay for a guaranteed rate. That bill trickles back to the ratepayers. Furthermore, evidence was submitted by the opposition showing that MISO's Response to the Reliability Imperative, which was updated in January of 2022, states that MISO expects reliability risks to increase going forward as the region's resource mix continues to evolve.

Badger's Late Filed Exhibit #35 also addressed costs by pointing out that MISO provided them with an interconnection agreement that requires Badger to pay for upgrades necessary to facilitate interconnection. But the cost of the upgrades to facilitate interconnection are minimal compared to the costs to solve the

congestion problem which already haunts this area and which will be compounded by this addition of another 250 MW of generation. Estimates for solving the current congestion problem in this area are in the hundreds of millions of dollars, and this project exacerbates the problem. Those costs will also come back to the ratepayers.

This Commission has sited energy infrastructure for decades and the discussion has mostly been about environmental issues. But throughout most of that time we were dealing with a situation where much of our electric transmission system had been built decades ago in anticipation of additional coal generation being developed. Many of those coal projects never materialized, so we have been able to add thousands of MW of wind generation without adversely impacting the electric transmission system. The system had enough excess capacity. (We also absorbed some of the additional generation with the expansion of our oil industry)

But now this unbridled buildout of new generation facilities and the associated retirement of existing facilities is threatening both the reliability and the affordability of electricity. Our electric transmission system, built to export energy to higher population areas outside of North Dakota, has now been saturated in many areas.

The Siting Act guides us to ensure that new energy facilities will produce minimal adverse effects on the environment and upon the welfare of the citizens of North Dakota. Historically our siting cases had minimal impact on the welfare of the citizens because the electric transmission system had plenty of capacity. That is no longer the case in some areas of the state, so we must start focusing more of our attention on the second half of that directive. The addition of Badger Wind in this area of extreme electric transmission congestion will undoubtedly produce significant adverse effects upon the welfare of the citizens of North Dakota.


Randy Christmann, Commissioner