

STATE OF NORTH DAKOTA  
PUBLIC SERVICE COMMISSION

Glacier Ridge Wind Farm, LLC  
Glacier Ridge Wind Farm Project – Barnes County  
Siting Application

Case No. PU-16-539

AFFIDAVIT OF SERVICE REGULAR OR ELECTRONIC MAIL

STATE OF NORTH DAKOTA  
COUNTY OF BURLEIGH

**Geralyn R. Schmaltz** deposes and says that:

she is over the age of 18 years and not a party to this action and, on the **12th** day of **December, 2016**, she deposited in the United States Mail, Bismarck, North Dakota, **16** envelopes by first class mail, fully prepaid and **43** addressees electronically mailed a copy of:

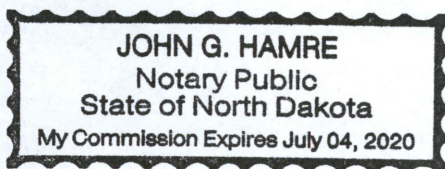
- **Findings of Fact, Conclusions of Law and Order**
- **Dissent – Commissioner Randy Christmann**

The envelopes and electronic mails respectively were addressed as follows:

**See attached list.**

Each post office address shown is the respective addressee's last reasonably ascertainable post office address and each email address is the respective addressee's last reasonably ascertainable electronic mailing address.

Subscribed and sworn to before me  
this **12th** day of **December, 2016**.



SEAL

Notary Public

Barnes County Auditor  
Barnes County Courthouse 230 4th Street  
Valley City ND 58072

Chairperson  
Barnes County Commission  
Barnes County Courthouse 230 4th Street  
Valley City ND 58072-2947

City of Dazey  
Mayor  
PO Box 60  
Dazey ND 58429-0060

City of Fingal  
Mayor  
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City of Kathryn  
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City of Leal  
Mayor  
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Pu-16-539

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**STATE OF NORTH DAKOTA  
PUBLIC SERVICE COMMISSION**

**Glacier Ridge Wind Farm, LLC  
Glacier Ridge Wind Farm Project – Barnes County  
Siting Application**

**Case No. PU-16-539**

**FINDINGS OF FACT, CONCLUSIONS OF LAW AND ORDER**

**December 7, 2016**

**Appearances**

Commissioners Julie Fedorchak, Randy Christmann, and Brian P. Kalk.

Sara E. Bergan and Andrew Pieper, Attorneys at Law, Stoel Rives LLP, 33 South Sixth Street, Suite 4200, Minneapolis, Minnesota 55402, on behalf of Glacier Ridge Wind Farm, LLC.

Zachary E. Pelham, Special Assistant Attorney General Attorney, 314 East Thayer Avenue, Bismarck, North Dakota 58502, on behalf of the North Dakota Public Service Commission.

Patrick J. Ward, Administrative Law Judge, Office of Administrative Hearings, 316 North Fifth Street, Bismarck, North Dakota 58501, as Procedural Hearing Officer.

**Preliminary Statement**

On July 19, 2016, Glacier Ridge Wind Farm, LLC (Glacier Ridge) filed an application (Application) for a certificate of site compatibility concerning a proposed 300.15 megawatt wind energy conversion facility, to be known as the "Glacier Ridge Wind Farm". The Glacier Ridge Wind Farm would be located on 34,450 acres in Barnes County, approximately five miles northeast of Valley City, North Dakota.

On August 24, 2016, the Commission deemed the application complete and issued a Notice of Filing and Public Hearing (Notice), scheduling a public hearing on the application for September 27, 2016, at 9:00 a.m. Central Time, to be held at Vangstad Auditorium, Valley City State University, 101 College Street SW, Valley City, North Dakota 58072.

The Notice identified the following issues to be considered with respect to the application:

1. Will the location and operation of the proposed facilities produce minimal adverse effects on the environment and upon the welfare of the citizens of North Dakota?
2. Are the proposed facilities compatible with the environmental preservation and the efficient use of resources?
3. Will the proposed facility locations 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 September 27, 2016, the public hearing was held as scheduled.

On October 7, 2016, and on October 18, 2016, Glacier Ridge filed late-filed exhibits.

On October 20, 2016, Glacier Ridge filed Proposed Findings of Fact, Conclusions of Law and Order.

On November 2, 2016, the Commission held a Work Session concerning the late-filed exhibits.

On November 3, 2016, Glacier Ridge filed revised late-filed exhibits.

On November 23, 2016, the Commission held a Work Session concerning the revised late-filed exhibits.

On December 2, 2016, Glacier Ridge filed a motion to amend the Application to bifurcate the proposed Glacier Ridge Wind Farm into two separate phases, to be known as "Phase I" and "Phase II". The motion further requests that the Commission approve Phase I and hold in abeyance a decision concerning Phase II.

On December 5, 2016, the Commission held a Work Session concerning the requested amendment to the Application.

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

### **Findings of Fact**

1. Glacier Ridge Wind Farm, LLC is a Delaware limited liability company authorized to do business in the State of North Dakota, as evidenced by corporate papers filed with the Commission on July 27, 2016, in Case No. PU-16-555.

## Size, Type and Preferred Location of Facility

2. Phase I of the Glacier Ridge Wind Farm will consist of a wind energy facility with a nameplate generating capacity of up to 179.4 megawatts (MW) to be constructed on approximately 13,325 acres in Barnes County.
3. Phase I will consist of up to 52 wind turbines. Glacier expects to use Vestas V126 3.45 MW turbine generators for Phase I.
4. Associated facilities to be located within Phase I will include access roads, underground electrical collection and communications cables, and a combined substation/operations and maintenance building.
5. Turbines will be conical tubular steel with a hub height of 285 feet and a rotor diameter of 413 feet. Turbines will operate in wind speeds between 6.7 and 50.3 miles per hour, and will be grounded and shielded for lightning protection. Turbines will be lit for nighttime visibility.
6. Each turbine will be secured by anchor bolts to a concrete foundation, which will be designed by a registered professional engineer licensed to practice in the State of North Dakota. The above-ground portion of each turbine foundation will be approximately 15 to 16 feet in width.
7. Permanent aggregate-surfaced roads approximately 20 feet in width will connect each turbine to the public road system.
8. Electrical collector lines will connect each turbine to the substation, where voltage will be stepped up to stepped up from 34.5 kilovolts to 345 kilovolts.
9. The total anticipated cost of Phase I is \$202 Million.

## Study of Preferred Location

10. Glacier Ridge evaluated the Phase I footprint for natural resources, including wildlife, protected species and critical habitats, wetlands and waterbodies, vegetation, and soil types.
11. Glacier Ridge conducted a Class I cultural resources desktop study on the Phase I footprint and on a one-mile area surrounding the Phase I footprint for archaeological resources.
12. Glacier Ridge conducted a Class I cultural resources desktop study on a two-mile area surrounding the turbine layout for architectural resources.

13. Glacier Ridge conducted a Class III cultural resources field inventory for archaeological and architectural resources on areas to be disturbed by construction within the Phase I footprint as indicated in Table 1-3 of Hearing Exhibit 1 (Survey Area).
14. Glacier Ridge conducted eagle and avian use studies, raptor nest surveys, and bat acoustic modeling for Phase I.
15. Glacier Ridge conducted a shadow flicker analysis for Phase I. Predicted shadow flicker exceeds a total of 30 hours per year at two occupied residences impacted by Phase I. Waivers have been obtained from the owners of both residences.
16. Glacier Ridge conducted acoustic modeling for Phase I. Predicted sound levels are less than 50 decibels within 100 feet of occupied residences impacted by Phase I.
17. The following agencies were contacted by Glacier Wind and provided comments regarding Phase I: the United States Fish and Wildlife Service (USFWS); the United States Army Corps of Engineers; the National Weather Service; the United States Department of Commerce; the State Historical Society of North Dakota (SHSND); the North Dakota Geological Survey; the North Dakota Department of Health; the North Dakota State Water Commission; the North Dakota Game and Fish Department (NDGFD), and the North Dakota Department of Transportation.
18. No objections to Phase I were raised by any federal or state agencies.
19. The Barnes County Commission issued a Conditional Use Permit for the Glacier Ridge Wind Farm on October 5, 2016.

#### Siting Criteria

20. The Commission has adopted criteria under North Dakota Administrative Code Chapter 69-06-08 to evaluate the suitability of a proposed energy conversion facility site. The criteria set forth in North Dakota Administrative Code section 69-06-08-01 are classified as Exclusion Areas, Avoidance Areas, Selection Criteria, and Policy Criteria.
21. An Exclusion Area is a geographical area that shall be excluded in the consideration of a site for an energy conversion facility. Prime and unique farmland is an Exclusion Area. However, if the Commission finds that the prime farmland and unique farmland that will be removed from use for the life of the facility is of such small acreage as to have a negligible impact on agricultural production, the exclusion does not apply.
22. Approximately 41 acres or 0.3 percent of the Phase I footprint is anticipated to be removed from use for the life of Phase I. The Commission finds that the prime farmland expected to be removed from use by Phase I is of such small acreage as to have a negligible impact on agricultural production.

23. Glacier Ridge's Class III cultural resource inventories identified two archaeological resources and one architectural resource within the Survey Area. Both archaeological resources have been determined by Glacier Ridge's Class III consultant to be not eligible for listing on the National Register of Historic Places. The architectural resource will be avoided.

24. In responses dated August 23, 2016, and October 17, 2016, the SHSND indicated that they found the Class III cultural resource inventory reports submitted by Glacier Ridge to be acceptable.

25. No other Exclusion Areas are located within the Phase I footprint.

26. An Avoidance Area is a geographical area that may not be approved as a site for an energy conversion facility unless the applicant shows that under the circumstances there is no reasonable alternative. In determining whether an Avoidance Area should be designated for the construction and operation of an energy conversion 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. Economic considerations alone will not justify approval of these areas. A buffer zone of a reasonable width to protect the integrity of the area shall be included. Natural screening may be considered in determining the width of the buffer zone.

27. Wetlands are present within the Phase I footprint. Glacier Ridge testified that wetlands under easement to the USFWS will be avoided. Impacts to other wetlands will be avoided or minimized as practicable.

28. Trees and shrubs are located within the Phase I footprint. Phase I will be constructed to minimize impacts to trees and shrubs to the extent practicable. All trees and shrubs removed during construction will be replaced in accordance with the Commission's tree and shrub mitigation specifications.

29. No other Avoidance Areas are present within the Phase I footprint.

30. In accordance with the Commission's Selection Criteria, an energy conversion facility site shall be designated only if it is demonstrated that any significant adverse effects resulting from the location, construction, and maintenance of the facility will be at an acceptable minimum or managed and maintained at an acceptable minimum.

31. Glacier Ridge submitted evidence to demonstrate that any significant adverse effects resulting from the location, construction, and maintenance of the facility will be at an acceptable minimum or managed and maintained at an acceptable minimum.

## Measures to Minimize Impact

32. Glacier Ridge has agreed to a number of steps to mitigate the impact of Phase I as contained in the Certification Relating to Order Provisions – Wind Energy Conversion Facility Siting with accompanying Tree and Shrub Mitigation Specifications filed in this proceeding, which is incorporated by reference and attached to this Order.
33. All parcels within Phase I are owned by participants in the Glacier Ridge Wind Farm.
34. Glacier Ridge indicated that a supervisory control and data acquisition system will be installed for Phase I, which will allow turbines to be continuously monitored and controlled at a control center located in Broomfield, Colorado.
35. Glacier Ridge has committed to implementing a cleaning process for construction equipment in an effort to limit the spread of noxious weeds.
36. Glacier Ridge has committed to continued coordination with the USFWS and the NDGFD concerning eagles in order to mitigate impacts to eagles for the life of Phase I.
37. Glacier Ridge's has committed to burying the electrical collection system in accordance with Avian Power Line Interaction Committee-suggested practices.
38. Glacier Ridge has committed to limiting vehicle speeds to 25 miles per hour on access roads.
39. Glacier Ridge will conduct bird and bat mortality surveys for one year post-construction.
40. Glacier Ridge has obtained all land rights necessary to construct Phase I.
41. Glacier Ridge will file a decommissioning plan with the Commission prior to the operation of Phase I.

From the foregoing Findings of Fact, the Commission now makes its:

### Conclusions of Law

1. The Commission has jurisdiction over Glacier Ridge Wind Farm, LLC and the subject matter of this application under North Dakota Century Code chapter 49-22.
2. The Project is an energy conversion facility as defined in North Dakota Century Code section 49-22-03(5).

3. The location, construction, and operation of the Project will produce minimal adverse effects on the environment and upon the welfare of the citizens of North Dakota.
4. The Project 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.
5. The location, construction, and operation of the Project are compatible with environmental preservation and the efficient use of resources.
6. The Commission has jurisdiction to ensure compliance with National Electric Safety Code standards in the construction and operation of the Project.
7. In the event that no turbines are installed as a part of Phase I on or before December 31, 2020, Glacier Ridge will: remove all towers; remove all other above-grade facilities to not less than three feet below grade or such deeper level as otherwise required by any governmental authority with jurisdiction; remove all road materials from roads constructed by Glacier Wind and plow such roads at least one time for restoration to agricultural purposes; fill in and compact all pad sites, roadways, holes, trenches and excavations with no less than eight inches of the fill consisting of good quality, weed free topsoil reserved from Phase I and segregated while not in use; remove debris; and reseed disturbed areas with a seed mixture and density as reasonably requested by landowner.

From the foregoing Findings of Fact and Conclusions of Law the Commission now makes its:

### Order

The Commission orders:

1. Glacier Ridge Wind Farm, LLC's Motion to Amend the Application to Bifurcate the Project Area and Stay Decision on Phase II is granted.
2. Certificate of Site Compatibility Number 51 is issued to Glacier Ridge Wind Farm, LLC, designating a site for the construction, operation, and maintenance of an energy conversion facility in Barnes County, North Dakota, to be known as Phase I of the Glacier Ridge Wind Farm. The designated site is depicted as "Proposed Project Area – Phase I" in Attachment 1 of Glacier Ridge Wind Farm, LLC's Motion to Amend the Application to Bifurcate the Project Area and Stay Decision on Phase II.
3. Glacier Ridge is authorized to construct up to 52 wind turbines producing a total nameplate capacity of 179.4 within the designated site, along with associated access

roads, underground electrical collection systems and communications cables, and a combined substation/operations and maintenance building.

4. In the event Phase I is modified, Glacier Ridge shall complete a Class III cultural resource survey for any previously unsurveyed areas affected by Phase I-related activities, in accordance with SHSND guidance, and shall submit cultural resource findings to the SHSND for review and obtain and file a copy of the SHSND's response with the Commission prior to beginning construction in affected areas.

5. In the event the Phase I layout is modified, Glacier Ridge shall complete a wetland determination of any previously unsurveyed areas affected by Phase I-related activities, and file the report with the Commission.

6. In the event Phase I modifications occur that are not covered by its existing acoustic analysis, Glacier Ridge shall conduct a revised acoustic analysis and file the results of that analysis with the Commission.

7. In the event Phase I modifications occur that are not covered by its existing shadow flicker analysis, Glacier Ridge shall conduct a revised shadow flicker analysis and file the results of the analysis with the Commission.

8. Glacier Ridge shall locate turbines such that shadow flicker at any currently inhabited residence is less than 30 hours per year, unless otherwise agreed to by the landowner in writing.

9. Glacier Ridge shall file with the Commission copies of its Bird and Bat Conservation Strategy upon development of the Strategy.

10. Glacier Ridge shall file with the Commission copies of its avian monitoring study upon completion of the study.

11. Glacier Ridge shall file with the Commission the results of the one year post-construction bird and bat fatality monitoring upon completion of the monitoring.

12. In the event that no turbines are installed as a part of Phase I on or before December 31, 2020, Glacier Ridge shall remove all towers, remove all other above-grade facilities to not less than three feet below grade or such deeper level as otherwise required by any governmental authority with jurisdiction, remove all roads constructed by Glacier Wind and plow such roads at least one time for restoration to agricultural purposes, fill in and compact all pad sites, roadways, holes, trenches and excavations with no less than eight inches of the fill consisting of good quality, weed free topsoil, remove debris, and reseed disturbed areas with a seed mixture and density as reasonably requested by the landowner.

13. Subject to approval by the Federal Aviation Administration approval, Glacier Ridge shall use commercially reasonable efforts to install an Aircraft Detection and Lighting System or other technology suitable to the Commission on Phase I as soon as practicable after commercial operation. Glacier Ridge shall provide updates to the Commission as to the proposed lighting system and associated federal approval status on a quarterly basis, to begin three months after the date of this Order.

14. The Certification Relating to Order Provisions – Wind Energy Conversion Facility Siting with accompanying Tree and Shrub Mitigation Specifications executed by Glacier Ridge on October 4, 2106 is incorporated by reference and attached to this Order.

15. Provision No. 15 of the Certification is modified to allow fall/winter topsoil removal after topsoil has frozen to the point that frost inhibits proper soil segregation. Glacier Ridge shall thaw the soil in locations where topsoil shall be segregated.

16. To the extent that there are any conflicts or inconsistencies between Glacier Ridge's application in this proceeding and the Certification, the Certification provisions control.

**PUBLIC SERVICE COMMISSION**

  
\_\_\_\_\_  
**Randy Christmann**  
Commissioner

  
\_\_\_\_\_  
**Julie Fedorchak**  
Chairman

  
\_\_\_\_\_  
**Brian P. Kalk**  
Commissioner

# **PUBLIC SERVICE COMMISSION**

## **STATE OF NORTH DAKOTA**

### **Certificate of Site Compatibility Number 51**

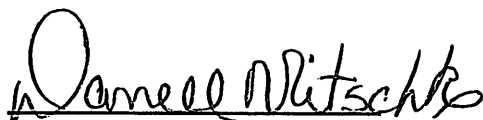
*This is to certify that the Commission has designated a site for Glacier Wind Farm, LLC for the construction, operation and maintenance of a wind energy conversion facility and associated facilities in Barnes County, North Dakota.*

*This certificate is issued in accordance with the Findings of Fact, Conclusion of Law and Order of the Commission in Case No. PU-16-539 dated December 7, 2016 and is subject to the conditions and limitations noted in the Order.*

*Bismarck, North Dakota, December 7, 2016.*

**ATTEST:**

**PUBLIC SERVICE COMMISSION**



**Executive Secretary**



**Commissioner**

STATE OF NORTH DAKOTA

PUBLIC SERVICE COMMISSION

Glacier Ridge Wind Farm, LLC  
Glacier Ridge Wind Farm Project – Barnes County  
Siting Application

Case No. PU-16-539

CERTIFICATION RELATING TO ORDER PROVISIONS  
WIND ENERGY CONVERSION FACILITY SITING

I am Paul Walker, a representative of Glacier Ridge Wind Farm, 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, 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 has authority to stop Project construction activities 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 4 day of October, 2016.

Glacier Ridge Wind Farm, LLC

By: RES America Developments Inc.  
its Manager

By   
Paul Walker, Chief Financial Officer

## **DISSENT**

**Commissioner Randy Christmann**

**December 9, 2016**

**Glacier Ridge Wind Farm, LLC  
Glacier Ridge Wind Farm Project - Barnes County  
Siting Application**

**Case No. PU-16-539**

The application of Glacier Ridge Wind Farm for siting of a wind farm in Barnes County should not be approved at this time.

Glacier Ridge's application tends to satisfy the 11 requirements (N.D.C.C. § 49-22-09) traditionally used by the PSC when making siting decisions. However, this section of law expressly points out that the PSC is not limited in its deliberations to these 11 requirements.

Glacier Ridge appears primarily focused on gaining local support in the Barnes County area for obvious and substantial economic development reasons and on hurrying along a starting date in order to qualify for federal subsidies. While additional economic activity in this rural area of the state is an important and worthy undertaking, it is not a compelling reason for this Commission to allow imposition of this significant additional generation cost on the rate payers or the tax payers. Since Glacier Ridge's application is silent regarding where the electricity will be marketed, the Commission must entertain the possibility that it will be marketed to North Dakota consumers.

There has been a sort of mad dash to begin just enough construction on the project to meet the qualification requirements for the Production Tax Credits that are available in 2016. Glacier Ridge's application was for a wind farm capable of generating 300.14 MW of power. However, after many years of planning, Glacier Ridge did not even have all of the easements for turbine locations until just recently, and it still does not have all of the easements necessary for collection lines and access roads. This lack of land rights necessitated the drastic step of splitting the project into Phase I and Phase II. Without a power purchase agreement or

interconnection agreement, it is questionable whether either Phase will ever be completed.

Glacier Ridge's plan to suspend construction activity until at least 2018, after the initial flurry of activity in 2016, causes significant concern about future reclamation. Under current rules, the original work would never trigger the requirement for reclamation assurances.

Glacier Ridge has failed to provide documentation of a transmission interconnection agreement. Instead, the Commission is expected to rely on a future filing from Glacier Ridge to determine where the transmission line would interconnect. This lack of clarity causes uncertainty about the availability of transmission access for this project and about the availability of transmission access for other potential developments.

Glacier Ridge cannot show there is a willing and able buyer for any power that would be produced from this project. While Glacier Ridge has produced evidence of interest in the purchase of the power proposed to be created from this Project, nothing has been executed.

North Dakota Century Code section 49-22-02 declares it to be the policy of the state to site energy conversion facilities in an orderly manner compatible with environmental preservation and the efficient use of resources. It also requires that sites be chosen to 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.

Glacier Ridge's mad dash to begin construction without a plan for completion is anything but orderly development. While Glacier Ridge's application meets many specific individual requirements for siting approval, the cumulative uncertainty involved with this application cause it to not satisfy the more comprehensive demands of this statute.

  
Randy Christmann, Commissioner