



Public Service Commission
State of North Dakota

APR 28 2017

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28 April 2017

Vonette Richter
Code Revisor
North Dakota Legislative Council
State Capitol
600 East Boulevard, 2nd Floor
Bismarck, ND 58505-0360

Hand delivery

RE: New Rules:
Public Utilities, PSC Case No. PU-16-775
Public Utilities - Wind Decommissioning, PSC Case No. PU-17-23

Dear Ms. Richter:

Enclosed for publication in the North Dakota Administrative Code, please find a copy of amendments to N.D. Admin. Code Sections 69-06-08-01 and 69-09-02-35 relating to Public Utilities, and Chapter 69-09-09 relating to Public Utilities - Wind Decommissioning. In support of this filing, enclosed please find copies of:

- All written comments received and a summary of each oral comment on the rules;
- A fiscal note;
- The Public Service Commission's 21 April 2017 Order Submitting Revised Rules to Attorney General, which includes a summary of all comments and is the written record of the agency's consideration of all comments;
- Letter from the Attorney General dated 26 April 2017 approving the proposed rules as to legality; and
- The Public Service Commission's 28 April 2017 Motion adopting the proposed rules, with rules attached. On 28 April 2017, the Public Service Commission adopted the rules as approved.

Thank you for your attention to this matter. If you have any questions, please call 328-2421, or e-mail to jschuh@nd.gov.

Best regards,

John Schuh
Legal Counsel

attachments

**Public Service Commission
Public Utilities
Rulemaking**

Case No. PU-16-775

**Public Service Commission
Public Utilities - Wind Decommissioning
Rulemaking**

Case No. PU-17-23

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STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION

**Public Service Commission
Public Utilities
Rulemaking**

Case No. PU-16-775

STAFF TESTIMONY

February 27, 2017

My name is Jerry Lein. I am employed as a Public Utility Analyst with the Public Service Commission. The purpose of my testimony is to explain and provide support for changes proposed to the Commission's administrative rules in section 69-09-02-35 of the North Dakota Administrative Code. This section adopts the National Electric Safety Code (NESC) by reference.

The NESC is updated periodically, with a new edition issued every five years. The changes proposed would adopt the latest NESC 2017 Edition instead of the previously adopted 2012 Edition. The purpose of adopting the 2017 Edition is to ensure that North Dakota safety requirements keep pace with industry standards. In practice, the utilities are committed to safety and are already applying the 2017 Edition.

This concludes my testimony. I would be happy to answer any questions at this time. Thank you.

STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION

**Public Service Commission
Public Utilities
Rulemaking**

Case No. PU-16-775

STAFF TESTIMONY
February 27, 2017

My name is Jerry Lein. I am a Public Utility Analyst with the Public Service Commission. The purpose of my testimony is to explain the proposed changes to the Commission's administrative rules pertaining to the siting of energy conversion and transmission facilities, Article 69-06 of the North Dakota Administrative Code promulgated under N.D.C.C. Chapter 49-22.

The purpose for the rule changes are to update and codify the Commission's existing energy conversion facility siting criteria to add the impact on light sensitive land uses to the selection criteria, which must be at an acceptable minimum. The Commission is further proposing to add new policy criteria to allow preference to be given to wind energy projects that commit to installing aircraft detection and lighting systems subject to Federal Aviation Administration approval.

The FAA requires flashing red warning lights on wind turbines to avoid aircraft collisions with turbines. These flashing lights have long been a source of light pollution on the rural night sky. Aircraft detection and lighting systems are a new technology coming available that uses radar to detect when an aircraft is in the vicinity so the flashing lights can be turned on only when needed.

The Commission is already giving consideration to the use of aircraft detection and lighting systems subject to FAA approval when siting wind energy projects. The rule changes proposed here would codify that existing practice.

Please note that Commission counsel has advised that the selection criteria change proposed in subsection 69-06-08-01(5)(c)2) should be in a new subsection and it is likely this edit will be made in drafting a final rule.

This concludes my testimony. I would be happy to answer any questions at this time. Thank you.

STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION

Public Service Commission
Public Utilities - Wind Decommissioning
Rulemaking

Case No. PU-17-23

STAFF TESTIMONY
February 27, 2017

My name is Jerry Lein. I am employed as a Public Utility Analyst with the Public Service Commission. The purpose of my testimony is to explain and provide support for changes proposed to the Commission's administrative rules regarding wind turbine decommissioning in chapter 69-09-09 of the North Dakota Administrative Code.

The Commission initially proposed decommissioning rules in 2007 and they became effective on October 1, 2008. Over the last 8 to 9 years, the State has seen a substantial number of commercial wind energy conversion facilities begin operation. As wind generation continues to expand in sheer numbers across the state and installations grow in size and scale, the costs and consequences of failed or improper decommissioning have grown to be a cause for concern.

The proposed rules are intended to strengthen the method of ensuring that funds will be available for decommissioning and restoration throughout the life of the project, heighten decommissioning requirements for future wind energy conversion facilities, and allow the Commission to more effectively monitor the methods and costs for decommissioning and restoration.

The proposed changes to the definitions under 69-09-09-01 reflect the proposed changes in the subsequent sections under chapter 69-09-09. The proposed changes to section 69-09-09-02 clarify that the owner of the site certificate is responsible for

decommissioning. The proposed rules in section 69-09-09-03 require the owner of a wind project to file annual certifications demonstrating the operation of the facility during the previous year. Subject to rebuttal, a project would be presumed to be 1) at the end of its useful life if its annual capacity factor is less than ten percent, and 2) abandoned if, after commencement and prior to completion of construction, a period of 24 months has passed with no construction. Ten percent was chosen as a conservative minimal capacity factor considering that a modern North Dakota wind project normally operates in a range of around 50 percent capacity factor.

Absent Commission approval of a plan to return the facility to operation, the proposed change to section 69-09-09-04 increases the decommissioning period allowed to complete decommissioning from 18 to 24 months. The purposes of these changes in sections 69-09-09-03 and 04 are to better define and recognize when decommissioning is required and to allow a longer decommissioning period in recognition that longer winters can sometimes hinder decommissioning.

Section 69-09-09-05 is proposed to be amended to increase the foundation, building and ancillary equipment removal depth requirements for new facilities from 3 feet to 4 feet. A review of decommissioning requirements of states, counties, and site permits indicates removal of facilities are often required to a depth of four feet.¹ The purpose is to provide further protections against possible conflicts with future surface usage.

¹ Wyo. Admin. Code § ENV IS Ch. 1 s 9; New Hampshire ADC SITE 301.08; and a sited wind facility permit in Minnesota, Minnesota Public Utility Commission Docket No. IP-6684-WS-08-1448.

Removal of foundations, buildings, and ancillary equipment for existing facilities constructed before July 1, 2017 will not be affected. Language is added to require Commission approval of an owner request to allow landowners to retain surface features such as roads, etc. The purpose is to guard against possible short-term cash windfalls at the expense of long-term productivity of the property.

Proposed changes to section 69-09-09-06 require decommissioning plans with cost estimates to be filed for Commission approval prior to construction, whereas the existing rule requires decommissioning plans to be filed for Commission review prior to operation. The Commission would have up to six months to make a determination on the decommissioning plan. This mirrors the time period for designating a site or corridor under North Dakota Century Code section 49-22-08 and while not required, it is anticipated that applicants will make the filings at the same time to have the time periods run concurrently.

With the proposed changes, decommissioning cost estimates will need to be made by a professional engineer and may include salvage value in addition to an estimate excluding salvage value. Cost estimates must be updated ten years after initial approval then every five years after that until fully decommissioned. These changes are intended to accommodate the proposed requirement for decommissioning financial assurance to be in place prior to construction.

Under existing rules, the Commission may require financial assurance for decommissioning after ten years of operation. Proposed changes to section 69-09-09-07 require a facility with a certificate of site compatibility issued prior to July 1, 2017 to provide financial assurance after the tenth year of operation. The proposed changes to

section 69-09-09-08 require financial assurance for a facility sited after July 1, 2017 to be provided prior to construction.

Changes to section 69-09-09-08 clarify and heighten the financial assurance requirements, and allow the commission to require additional financial assurance upon a finding that current financial assurance for a facility is insufficient. The proposed changes allow financial assurance to be in the form of an incremental bond schedule with an initial bond increment prior to construction. Minimum bond ratings for a self or parent guarantee to be considered is proposed to be increased to "A" as issued by Moody's Investors Service, Standard and Poor's or an equivalent rating organization. Language is added to restrict total outstanding self-guarantee to 25% of the owner's net worth in the US and to allow the Commission to accept a self or parent guarantee from the electric utilities it regulates. These self-bonding limitations would mirror those of the Office of Surface Mining (OSM) for coal mine reclamation. The purpose of these proposed changes is to ensure that only the most-sound owners are allowed to self-guarantee.

This concludes my testimony. I would be happy to answer any questions at this time. Thank you.

**Public Service Commission
Public Utilities
Rulemaking**

Case No. PU-16-775

**Public Service Commission
Public Utilities - Wind Decommissioning
Rulemaking**

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Summary of Oral Comments Received

The following is a summary of oral testimony received during the February 27, 2017 public hearing:

Jerry Lein, Commission Staff

- Jerry Lein testified in favor of the rule changes. He commented that 69-06-08-01(5)(c) has edits to move the Light-sensitive light uses to its own subsection as (c)(3). The rest of Mr. Lein's comments are all submitted as written.

David Shepard – Drake Lighting

- Mr. Shepard testified that there are other better technologies that are on their way for mitigating light pollution. His technology Light Intensity Dimming Solutions (LIDS) can be used across all systems while ADLS systems are impacted by terrain so that it can be seen, as well as have multiple radar systems. ADLS may result in lights being on nearly all the time because any object in near vicinity will turn on the lights at full intensity. This is more obtrusive than if they were always on. Mr. Shepard requested to have it open to new technologies.

Andy Buntrock

- Supports aircraft detection lighting systems and strengthening decommissioning rules. Mr. Buntrock comments that the state should be leveling the playing field with coal and setbacks should be further back during siting. Wind farms have natural, physical, and human impacts. They may cause epileptic seizures and noise. They can be seen from 50 miles away and can throw ice. Mr. Buntrock supports changes to ensure decommissioning and preventing light pollution.

Jean Schaffer – Basin Electric

- Section 04 changes: Requested decommissioning beginning at 8 months to be changed to 12 months to allow for bad weather.
- Section 09 changes: Bonding rating category should allow for A- rating. In the case of a split rating, that the commission should accept the higher of the two.

Frank Costanza – Tradewind Energy

- A 10% capacity factor is arbitrary. Catastrophic events could put a project out of operation for a year due to a long lead time to place the order with a manufacturer. Mr. Costanza realizes there is opportunity for rebuttal, but failure to operate for a continuous 24 months is a more common practice and suggests that that existing language be maintained.
- 69-09-09-06 and 08: Filing of decommissioning plan – The rules provide that decommissioning plans would be filed coincident with the siting process, but siting has to happen substantially earlier. A licensed engineer is a good rule change. The decommissioning plan should be submitted once construction is done and they have a final layout.
- Mr. Costanza requested a bifurcated process. There company should place a security at the beginning of construction equaling 10% of construction costs. That equates approximately to the cost of decommissioning of the project. After construction, a new bond is submitted to the commission. Mr. Costanza also requested that security be increased incrementally over time starting with filing 25% at start of commercial operation, 25% at year 5, and the remaining to be placed at year 10.
- Agrees updates every five years and adjusting the financial assurances accordingly.

Chris Kunkle – Wind on the Wires:

- The state needs to maintain a critical edge for wind development. There is growth due to ND's reputation as an energy powerhouse. The state should seek to be competitive with neighboring states.
- There is concern for the timing. The commission evaluation of decommissioning plans should be in line with the siting process. Requiring a plan prior to construction gives wind companies concern that there might be a delay. It is difficult to estimate specifics and all costs of decommissioning early in the process. It is important to make sure the processes are lined up. The capacity factor should be reconsidered, but Mr. Kunkle does recognize the rebuttable presumption.
- Salvage value should be considered with cost estimates.
- The rules should be written to allow for new technologies. The FAA approval process can be fluid up to construction and can be modified in early stages of construction.

Julie Voeck – NextEra

- Allow landowners to retain choose to keep changes to their property if they choose.
- Investment grade is acceptable instead of the "A" rating.
- Believes capacity factor is not the correct measure for end of useful life.

Jay Doan

- It is important that everything is removed. Three feet is not deep enough for water lines and fences. Complete removal would be appropriate for proper utilization of the land
- Bonds should be required for decommissioning.

- In favor of proposals, but suggests that complete removal of facilities is appropriate.

Jerry Doan

- "A" rated bonds are needed like other sources of energy.
- Bonds need to be up front to protect landowners.
- A thorough decommissioning plan is important.
- Remove all concrete to ensure usage of the land value for the next generation.
- Three to four feet depths are not enough for removal. He needs to drop water lines 8 feet deep.
- The only right thing to do is take it back the way it was before the facility began.
- Strong language to determine when the wind farm is abandoned. It is too easy to make it appear the wind farm is in operation and avoid any wind decommissioning plan.
- Improve setbacks or land values will fall.

Wade mills

- The right to build windfarms is important.
- Setback rules should not be cumbersome.
- The commission should exercise common sense.
- Ultimately, Mr. Mills stated he was in favor of the rule changes.

Tom Carlson of EDF Renewable Energy

- Commented that EDF would be filing comments.
- Mr. Carlson had general comments and stated that he would be available for questions.

February 21, 2017

VIA E-MAIL AND FEDERAL EXPRESS

Mr. Darrell Nitschke
Executive Secretary
North Dakota Public Service Commission
600 E. Boulevard, Dept. 408
Bismarck, ND 58505-0480

**RE: Public Service Commission
Public Utilities
Rulemaking
Case No. PU-16-775
and
Public Service Commission
Public Utilities – Wind Decommissioning
Rulemaking
Case No. PU-17-23**

Dear Mr. Nitschke:

Enel Green Power North America, Inc. ("EGPNA") and Tradewind Energy, Inc. ("Tradewind") respectfully provide the enclosed proposed revisions and supporting comments regarding the rules proposed in the above-referenced rulemaking cases. Please note that EGPNA's and Tradewind's proposed revisions to the rules are shown in blue and in track changes format.

Electronic copies of this letter and the enclosures were filed today via e-mail. If you have any questions regarding the proposed revisions or comments, please let me know.

Sincerely,


MOLLIE M. SMITH

MMS/ms/60817145
Enclosures

cc: John Schuh (via e-mail – w/ encl.)
Jerry Lein (via e-mail – w/ encl.)
Rob Stupar (via e-mail – w/ encl.)
Frank Costanza (via e-mail – w/ encl.)

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15 PU-17-23 Filed: 2/21/2017 Pages: 24
Proposed revisions and comments

Enel Green Power North America, Inc. & Tradewind Energy, Inc.
Mollie Smith, Fredrikson & Byron PA.

15 PU-16-775 Filed: 2/21/2017 Pages: 24
Proposed revisions and comments

Enel Green Power North America, Inc. & Tradewind Energy, Inc.
Mollie Smith, Fredrikson & Byron PA.

STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION

**Public Service Commission
Public Utilities
Rulemaking**

Case No. PU-16-775

**Public Service Commission
Public Utilities – Wind Decommissioning
Rulemaking**

Case No. PU-17-23

**COMMENTS OF ENEL GREEN POWER NORTH AMERICA, INC.
AND TRADEWIND ENERGY, INC.**

The North Dakota Public Service Commission (“Commission”) has proposed changes to N.D.A.C. § 69-06-08-01 and N.D.A.C. Ch. 69-09-09. Enel Green Power North America, Inc. (“EGPNA”) and Tradewind Energy, Inc. (“Tradewind”) respectfully provide the attached proposed revisions and the supporting comments set forth below.

EGPNA is a subsidiary of the Enel Group (“Enel”). Enel is a global power business with more than 61 million customers and a net installed capacity of 87.4 gigawatts (“GW”). In the United States, EGPNA is a leading owner and operator of renewable energy plants, with over 100 projects operating and under development in 23 states. EGPNA’s current operating capacity exceeds 2.8 GW. These facilities span the breadth of renewable energy generation, from renewable hydropower, to wind, geothermal, and solar energy. EGPNA is constructing and will operate the 150 megawatt (“MW”) Lindahl Wind Project in Williams County, North Dakota, which will provide electricity to Basin Electric Power Cooperative pursuant to a Power Purchase Agreement.

Tradewind, based in Lenexa, Kansas, is one of the largest independent wind and solar project development companies in the United States. Founded in 2003, the company has grown from its three co-founders to more than 100 employees specializing in a variety of areas, including meteorology, geographic information systems, environmental permitting, real estate, and engineering. Tradewind has 3 GW of contracted and operating projects, totaling more than \$5 billion in project capital investment, and is actively developing over 6 GW of wind assets and 3 GW of solar assets across the country. Tradewind is financially partnered with EGPNA and, in coordination with EGPNA, developed the Lindahl Wind Project.

I. Comments Regarding Proposed N.D.A.C. § 69-06-08-01 (Case No. PU-16-775).

Proposed N.D.A.C. § 69-06-08-01(6)(n) would make a commitment to install a Federal Aviation Administration (“FAA”) approved aircraft detection and lighting system a policy criteria for wind energy conversion facilities. To our knowledge, there are only two suppliers of FAA-approved aviation detection and lighting systems, which is likely to affect the availability

of the systems if their use becomes widespread. As a result, until the systems are more readily available, it may be difficult to secure an FAA-approved system – including qualified personnel to install, maintain, and monitor the system – or it may be financially untenable to do so.

Our proposed revisions are intended to address these concerns. Adding the phrase “to use commercially reasonable efforts” after “commitment” aligns with provisions in recent Commission orders addressing aviation detection and lighting system commitments made by wind developers (*see* Finding of Fact No. 46 in the June 22, 2016 Findings of Fact, Conclusions of Law and Order (Case No. PU-16-123); Finding of Fact No. 46 in the July 6, 2016 Findings of Fact, Conclusions of Law and Order (Case No. PU-16-42); Order Paragraph No. 13 in the December 7, 2016 Findings of Fact, Conclusions of Law and Order (Case No. PU-16-539)). In addition, we propose making the commitment “subject to the availability of a FAA-approved system” to account for the potential limited supply of approved systems.

II. Comments Regarding Proposed N.D.A.C. Ch. 69-09-09 (Case No. PU-17-23).

A. EGPNA/Tradewind Proposed N.D.A.C. § 69-09-09-01(5).

Proposed N.D.A.C. § 69-09-09-08 would require financial assurance for decommissioning to be provided prior to the commencement of construction, but the term “construction” is not defined. We propose adding a definition of construction as N.D.A.C. § 69-09-09-01(5). The proposed definition is based on the relevant portion of the definition of construction in N.D.C.C. § 49-22-03.

B. N.D.A.C. § 69-09-09-01(5)(b).

In proposed N.D.A.C. § 69-09-09-01(5)(b), the definition of “Decommissioning Plan” includes “a decommissioning cost excluding salvage value of the turbines and equipment.” We propose omitting the phrase “excluding salvage value of the turbines and equipment.” Doing so aligns the provision with proposed N.D.A.C. § 69-09-09-06(3)(b), which states that “a decommissioning cost estimate for a facility” may include a decommissioning cost estimate with salvage value and a decommissioning cost estimate without salvage value. As is, the proposed limitation of the decommissioning cost estimate in N.D.A.C. § 69-09-09-01(5)(b) seems to take away the ability the Commission currently has to consider decommissioning costs both with and without salvage value when determining decommissioning financial assurance for a wind energy conversion facility. We request that the Commission retain the flexibility it currently has to consider both types of decommissioning cost estimates when setting decommissioning financial assurance.

C. N.D.A.C. § 69-09-09-01(8).

In proposed N.D.A.C. § 69-09-09-01(8), the definition of “Owner” is “a person who has acquired a certificate of site compatibility . . .” Since a certificate of site compatibility may be transferred from one entity to another (*see* N.D.C.C. § 49-22-07(1)), we propose changing “has acquired” to “holds” to ensure the definition is broad enough to cover both initial permittees and those that acquire a certificate of site compatibility through transfer.

D. N.D.A.C. § 69-09-09-03(1).

Proposed N.D.A.C. § 69-09-09-03(1) requires wind energy conversion facility owners to file a certificate of operation by February fifteenth of each year. Many large utilities and wind development companies have facilities and associated filing requirements in multiple jurisdictions, as well as other federal and state reporting requirements, early each year. Therefore, we propose changing the annual certificate of operation filing deadline to March thirtieth (end of the First Quarter) to allow more time to prepare and submit the filing.

E. N.D.A.C. § 69-09-09-03(3).

Proposed N.D.A.C. § 69-09-09-03(3) presumes a facility is at the end of its useful life if its annual capacity factor is less than ten percent. Instead, we propose retaining the language in the current N.D.A.C. § 69-09-09-03, which presumes a facility is at the end of its useful life if it "generates no electricity for a continuing period of twenty-four months." Based on comments made during the Commission's working sessions on the proposed rules, we understand that the ten percent annual capacity factor is an arbitrary number. In addition, utilizing a ten percent annual capacity factor does not account for changing market conditions or catastrophic events, which may result in a facility falling below the ten percent annual capacity threshold. For example, replacing a main transformer at the point where a facility connects to the substation could result in a facility-wide outage of more than a year. For these reasons, we believe the current end of useful life presumption should be retained.

F. N.D.A.C. § 69-09-09-04.

We propose minor revisions to proposed N.D.A.C. § 69-09-09-04. The most notable revision is to tie the triggers for decommissioning – i.e., when a facility is abandoned or reaches the end of its useful life – to N.D.A.C. § 69-09-09-03, which is in the current rule.

G. N.D.A.C. §§ 69-09-09-06 and 69-09-09-08.

Our proposed revisions to N.D.A.C. §§ 69-09-09-06 and 69-09-09-08 are interconnected, so we will discuss the revisions together. Summaries of our revisions and supporting rationale are provided below.

1. Summary of Proposed Revisions.

In Section 69-09-09-03, two types of decommissioning triggers are identified: (1) abandonment of a facility (where construction is started but not completed); and (2) end of useful life (where the facility ceases operations). In Section 69-09-09-08, the Commission proposes requiring that financial assurance be posted prior to construction and remain in place throughout the life of the facility so the Commission has funds available to complete decommissioning in either instance. The amount of the financial assurance would be based on a Commission-approved decommissioning plan, which must also be submitted and approved prior to construction.

Our proposed revisions to Sections 69-09-09-06 and 69-09-09-08 would require owners to provide two types of financial assurance. First, we propose that, upon construction of a facility, an owner provide financial assurance equal to ten percent of the estimated cost of construction of the facility, which could be used to decommission the facility if it is abandoned (*see* revised Section 69-09-09-08(1)). With Commission approval, local bonding requirements could be considered part of the required financial assurance. Following completion of construction, the financial assurance would be returned or released.

Second, we propose that, upon commencement of commercial operation, an owner would provide financial assurance, to be used if needed to decommission the facility once it reaches the end of its useful life, in the following manner: twenty-five percent of the total decommissioning cost upon commencement of operation; an additional twenty-five percent of the total decommissioning cost five years after the date of commencement of commercial operation; and the remaining fifty percent ten years after the date of commencement of commercial operation (*see* revised Section 69-09-09-08(2)). The total amount of the financial assurance would be based on the owner's Commission-approved decommissioning cost estimate and detailed plan of financial assurance (*see* revised Sections 69-09-09-06(2) and 69-09-09-08(2)). Following completion of decommissioning of the facility by the owner, the financial assurance would be returned or released to the owner (*see* revised Section 69-09-09-08(2)).

With respect to the decommissioning plan, we propose that it continue to be filed prior to operation of the facility, and updated at year ten of operation and every five years thereafter (*see* revised Section 69-09-09-06(1) and (4)). The Commission would have sixty days from the date the initial decommissioning plan is deemed complete to make a determination regarding the owner's decommissioning cost estimate and detailed plan of financial assurance, and that determination would set the amount and form of financial assurance required for end of useful life decommissioning (*see* revised Sections 69-09-09-06(2) and 69-09-09-08(2)). Within sixty days of the filing of an updated decommissioning plan, the Commission could order additional financial assurance to be provided if the existing financial assurance is no longer sufficient to cover decommissioning (*see* revised Sections 69-09-09-06(4) and 69-09-09-08(6)).

2. Rationale for Proposed Revisions.

Requiring financial assurance during construction will ensure that sufficient funds are available to restore a site if construction is never completed. Setting the amount at ten percent of the cost of construction equates to just over \$100,000 per turbine, which exceeds our estimate of the cost of full facility decommissioning, without considering salvage value. *See, e.g.,* Lindahl Wind Project's Decommissioning Plan (Case No. PU-17-021) (per turbine decommissioning cost, without salvage value, estimated to be \$94,000). In addition, establishing a set formula for the pre-construction financial assurance, rather than basing the amount on a Commission-approved decommissioning plan, addresses our concerns with preparing a decommissioning plan (which is dependent upon final turbine selection) and obtaining Commission approval prior to construction. Returning or releasing the financial assurance once the facility is operational allows the funds to be used for other investments.

Once the facility is operational, it has a life expectancy of at least 25-30. Therefore, requiring decommissioning cost financial assurance to be provided on an incremental schedule beginning at the commencement of operation, with full financial assurance provided ten years after commencing operation, ensures that full decommissioning funding is available at least 15-20 years before the end of the facility's useful life. Further, the Commission's ability to review and require additional financial assurance at year ten and every five years thereafter ensures that adjustments to the financial assurance can be made, as necessary.

We understand there may be concerns that a facility will begin commercial operations, but stop operating before year ten. We have discussed this concern with the American Wind Energy Association, Wind on the Wires, commercial institutions that finance wind projects, and others in the wind energy industry. In all of our discussions, as well as our own research, we have not identified any utility scale wind facilities (i.e., 50 MW or greater in size) that have been permanently retired and not been decommissioned. Additionally, we have not identified any instances where a facility stopped operating because the owner went bankrupt. Rather, since operating wind facilities – which typically have long-term power contracts – are valuable assets, such facilities have been acquired and operated by others.

Further, requiring wind companies to provide the full amount of decommissioning financial assurance prior to construction and to maintain it throughout the life of the project would place an unnecessary economic burden on the companies and consumers. The requirement adds to the cost of developing a wind project in North Dakota, particularly when compared to other states that do not require financial assurance until several years after the facility is operational. Moreover, the added cost will be passed on to off-takers, which are typically utilities and their members or ratepayers.

We believe our proposal sufficiently and reasonably addresses the risk that the Commission may need to complete decommissioning if a wind energy conversion facility is abandoned or reaches the end of its useful life, without imposing unnecessary costs on wind companies, utilities, and consumers.

Proposed Revisions to Rules

CHAPTER 69-06-08

CRITERIA

Section

69-06-08-01 Energy Conversion Facility Siting Criteria

69-06-08-02 Transmission Facility Corridor and Route Criteria

69-06-08-01. Energy conversion facility siting criteria.

The following criteria must guide and govern the preparation of the inventory of exclusion and avoidance areas, and the site suitability evaluation process.

1. **Exclusion areas.** The following geographical areas must be excluded in the consideration of a site for an energy conversion facility.
 - a. Designated or registered national: parks; memorial parks; historic sites and landmarks; natural landmarks; historic districts; monuments; wilderness areas; wildlife areas; wild, scenic, or recreational rivers; wildlife refuges; and grasslands.
 - b. Designated or registered state: parks; forests; forest management lands; historic sites; monuments; historical markers; archaeological sites; grasslands; wild, scenic, or recreational rivers; game refuges; game management areas; management areas; and nature preserves.
 - c. County parks and recreational areas; municipal parks; parks owned or administered by other governmental subdivisions; hardwood draws; and enrolled woodlands.
 - d. Prime farmland and unique farmland, as defined by the land inventory and monitoring division of the soil conservation service, United States department of agriculture, in 7 C.F.R. part 657; provided, however, that 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 be of negligible impact on agricultural productions, this exclusion does not apply.

- e. Irrigated land.
- f. Areas critical to the life stages of threatened or endangered animal or plant species.
- g. Areas where animal or plant species that are unique or rare to this state would be irreversibly damaged.
- h. Areas within one thousand two hundred feet of the geographic center of an intercontinental ballistic missile (ICBM) launch or launch control facility.

2. **Additional exclusion areas for wind energy conversion facilities.** The following geographical areas must be excluded in the consideration of a site for a wind energy conversion facility:

- a. Areas less than:
 - (1) One and one-tenth times the height of the turbine from interstate or state roadway right of way;
 - (2) One and one-tenth times the height of the turbine plus seventy-five feet from the centerline of any county or maintained township roadway;
 - (3) One and one-tenth times the height of the turbine from any railroad right of way;
 - (4) One and one-tenth times the height of the turbine from a one hundred fifteen kilovolt or higher transmission line; and
 - (5) One and one-tenth times the height of the turbine from the property line of a nonparticipating landowner, unless a

variance is granted. A variance may be granted if an authorized representative or agent of the permittee and affected parties with associated wind rights file a written agreement expressing all parties' support for a variance to reduce the setback requirement in this subsection. A nonparticipating landowner is a landowner that has not signed a wind option or an easement agreement with the permittee of the wind energy conversion facility as defined in North Dakota Century Code chapter 17-04.

3. **Avoidance areas.** The following geographical areas 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 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. Economic considerations alone will not justify approval of these areas. A buffer zone of a reasonable width to protect the integrity of the area must be included. Natural screening may be considered in determining the width of the buffer zone.
 - a. Historical resources which are not designated as exclusion areas.
 - b. Areas within the city limits of a city or the boundaries of a military installation.
 - c. Areas within known floodplains as defined by the geographical boundaries of the hundred-year flood.
 - d. Areas that are geologically unstable.
 - e. Woodlands and wetlands.

- f. Areas of recreational significance which are not designated as exclusion areas.
4. **Additional avoidance areas for wind energy conversion facilities.** A wind energy conversion facility site must not include a geographic area where, due to operation of the facility, the sound levels within one hundred feet of an inhabited residence or a community building will exceed fifty dBA. The sound level avoidance area criteria may be waived in writing by the owner of the occupied residence or the community building.
5. **Selection criteria.** A site may be approved in an area only when it is demonstrated to the commission by the applicant that any significant adverse effects resulting from the location, construction, and operation of the facility in that area as they relate to the following, will be at an acceptable minimum, or that those effects will be managed and maintained at an acceptable minimum. The effects to be considered include:
- a. The impact upon agriculture:
 - (1) Agricultural production.
 - (2) Family farms and ranches.
 - (3) Land which the owner demonstrates has soil, topography, drainage, and an available water supply that cause the land to be economically suitable for irrigation.
 - (4) Surface drainage patterns and ground water flow patterns.
 - (5) The agricultural quality of the cropland.
 - b. The impact upon the availability and adequacy of:
 - (1) Law enforcement.

- (2) School systems and education programs.
- (3) Governmental services and facilities.
- (4) General and mental health care facilities.
- (5) Recreational programs and facilities.
- (6) Transportation facilities and networks.
- (7) Retail service facilities.
- (8) Utility services.

c. The impact upon:

- (1) Local institutions.
- (2) Noise or light-sensitive land uses.
- (3) Rural residences and businesses.
- (4) Aquifers.
- (5) Human health and safety.
- (6) Animal health and safety.
- (7) Plant life.
- (8) Temporary and permanent housing.
- (9) Temporary and permanent skilled and unskilled labor.

d. The cumulative effects of the location of the facility in relation to existing and planned facilities and other industrial development.

6. **Policy criteria.** The commission may give preference to an applicant that will maximize benefits that result from the adoption of the following policies

and practices, and in a proper case may require the adoption of such policies and practices. The commission may also give preference to an applicant that will maximize interstate benefits. The benefits to be considered include:

- a. Recycling of the conversion byproducts and effluents.
- b. Energy conservation through location, process, and design.
- c. Training and utilization of available labor in this state for the general and specialized skills required.
- d. Use of a primary energy source or raw material located within the state.
- e. Not relocating residents.
- f. The dedication of an area adjacent to the facility to land uses such as recreation, agriculture, or wildlife management.
- g. Economies of construction and operation.
- h. Secondary uses of appropriate associated facilities for recreation and the enhancement of wildlife.
- i. Use of citizen coordinating committees.
- j. A commitment of a portion of the energy produced for use in this state.
- k. Labor relations.
- l. The coordination of facilities.
- m. Monitoring of impacts.

- n. For wind energy conversion facilities, aA commitment to use commercially reasonable efforts to install an aircraft detection and lighting system s for wind energy conversion facilities subject to the availability of a Federal Aviation Administration--approved system for the facilitya.

History: Amended effective August 1, 1979; July 1, 2006; April 1, 2013; _____

General Authority: NDCC 49-22-18

Law Implemented: NDCC 49-22-05.1

69-09-02-35. Installation and maintenance – Conformance to National Electrical Safety Code.

The installation and maintenance of electric supply and communication lines shall conform to rules and regulations established in the ~~2012~~ 2017 edition of the National Electrical Safety Code which is adopted by reference. Copies of these regulations may be obtained from the public service commission, state capitol, Bismarck, North Dakota 58505-0480.

History: Amended effective September 1, 1984; January 1, 1988; December 1, 1990; August 1, 1993; July 1, 1997; March 1, 2003; July 1, 2008; April 1, 2013; _____

General Authority: NDCC 49-02-04

Law Implemented: NDCC 49-02-04, 49-20-02

CHAPTER 69-09-09

WIND TURBINE FACILITY DECOMMISSIONING

Section

69-09-09-01 Definitions

69-09-09-02 Decommissioning Responsibility

69-09-09-03 Abandonment and Useful Life – Certificate of Operation

06-09-09-04 Decommissioning Period

69-09-09-05 Decommissioning Requirements

06-09-09-06 Decommissioning Plan

06-09-09-07 Existing Facilities

69-09-09-08 Financial Assurance

06-09-09-09 Failure to Decommission

69-09-09-01. Definitions.

1. “Capacity Factor” means the ratio of the actual output generated by a facility for a period of time, to the output that could be produced at the nameplate generating capacity of that facility.
2. “Certificate of Operation” means an affidavit executed by the Owner certifying to the commission a facility’s:
 - a. Nameplate generating capacity;
 - b. Annual capacity factor;
 - c. Annual MWh output; and
 - d. Monthly MWh output.
3. “Commercial wind energy conversion facility” means a wind energy conversion facility of with one or more wind turbines that has a total

nameplate generating capacity equal to or greater than five hundred kilowatts in total nameplate generating capacity.

4. "Commission" means the public service commission.

4.5. "Construction" means any clearing of land, excavation, or other action that would affect the environment of the site of a facility, but does not include activities incident to preliminary engineering or environmental studies.

5-6. "Decommissioning Plan" means a plan filed with the commission that includes:

- a. The anticipated life of the facility;
- b. A decommissioning cost estimate excluding salvage value of the turbines and equipment;
- c. A description of the method used for determining the decommissioning cost estimate;
- d. The anticipated manner in which the project will be decommissioned;
- e. A description of any expected effects on present and future natural resource development; and
- f. A detailed plan of financial assurance sufficient to ensure decommissioning.

6-7. "Existing facility" means a facility for which a certificate of site compatibility has been issued prior to July 1, 2017.

7-8. "Facility" means a commercial wind energy conversion facility including wind turbines, turbine towers, tower bases, blades, pad transformers, collector lines, substations, facility access roads, meteorology towers, and

all areas disturbed by the construction, operation, maintenance or decommissioning activities.

8.9. "Owner" means a person who has acquired holds a certificate of site compatibility pursuant to North Dakota Century Code chapter 49-22 for a facility.

3. ~~"Wind turbine" means a wind turbine of equal to or greater than five hundred kilowatts in total nameplate generating capacity~~

History: Effective October 1, 2008; _____
General Authority: NDCC 28-32-02, 49-02-27
Law Implemented: NDCC 49-02-27

69-09-09-02. Decommissioning responsibility.

The owner ~~or operator of a commercial wind energy conversion facility~~ is responsible for decommissioning ~~that~~ the facility and for all costs associated with decommissioning ~~that facility and associated facilities.~~

History: Effective October 1, 2008; _____
General Authority: NDCC 28-32-02, 49-02-27
Law Implemented: NDCC 49-02-27

69-09-09-03. Abandonment and useful life – certificate of operation.

~~A commercial wind energy conversion facility or individual wind turbine is presumed to be at the end of its useful life if the facility or turbine generates no electricity for a continuing period of twenty four months. The presumption may be rebutted by submitting to the commission for approval a plan outlining the steps and schedule for returning the commercial wind energy conversion facility or wind turbine to service.~~

1. After construction of a facility is complete, the owner shall annually file a certificate of operation with the commission for that facility by February March thirtieth fifteenth of each year.

2. If no energy is generated by one or more wind turbines for the time period specified in the certificate of operation, a written explanation for the non-generating wind turbines must accompany the certificate of operation.
3. A facility is presumed to be at the end of its useful life if its annual capacity factor is less than ten percent it generates no electricity for a period of twenty-four consecutive months.
4. A facility is presumed to be abandoned if after commencement of construction and prior to completion, a period of twenty-four consecutive months has passed with no construction.
5. A presumption under this section may be rebutted by filing a plan for commission approval outlining the steps and schedule for continuing construction or operation of the facility or wind turbine.

History: Effective October 1, 2008; _____
General Authority: NDCC 28-32-02, 49-02-27
Law Implemented: NDCC 49-02-27

69-09-09-04. Decommissioning period.

The facility owner or operator shall begin decommissioning a commercial wind energy conversion facility or wind turbine within eight months after a facility is the time the facility abandoned or turbine reaches reaches the end of its its useful life, as determined by section 69-09-09-03 as determined in section 69-09-09-03. Decommissioning must be completed within eighteen twenty-four months after the facility abandonment or turbine reaches the end of its useful life unless the commission approves a plan specifying the steps and schedules to return the facility to operation.

History: Effective October 1, 2008; _____
General Authority: NDCC 28-32-02, 49-02-27
Law Implemented: NDCC 49-02-27

69-09-09-05. ~~Decommissioning~~Decommissioning requirements.

~~Decommissioning and site restoration includes: removal of surface road material and restoration of the roads and turbine sites to substantially the same physical condition that existed immediately before construction of the commercial wind energy conversion facility or wind turbine. The site must be restored and reclaimed to the same general topography that existed just prior to the beginning of the construction of the commercial wind energy conversion facility or wind turbine and with topsoil respread over the disturbed areas at a depth similar to that in existence prior to the disturbance. Areas disturbed by the construction of the facility and decommissioning activities must be graded, topsoiled, and reseeded according to natural resource conservation service technical guide recommendations and other agency recommendations, unless the landowner requests in writing that the access roads or other land surface areas be retained.~~

1. ~~dismantling~~ Dismantling and removal of all towers, turbine generators, transformers, and overhead cables;
2. ~~removal~~ Removal of underground cables to a depth of twenty-four [60.96 centimeters] inches;
3. ~~removal~~ Removal of foundations, buildings, and ancillary equipment to a depth of:
 - a. ~~three~~ Three feet [91.44 centimeters] for facilities constructed before July 1, 2017; and
 - b. Four feet [121.92 centimeters] for facilities constructed on or after July 1, 2017;
4. Site restoration and reclamation to the approximate original topography that existed prior to construction of the facility with topsoil respread over the disturbed areas at a depth similar to that in existence prior to the disturbance; and

5. Grading and topsoiling of areas disturbed by the facility, and reseeding according to natural resource conservation service recommendations, unless the commission approves an owner request signed by the applicable landowner, identifying the surface features the landowner prefers to remain in place, and the reason the landowner prefers those features to remain.

History: Effective October 1, 2008;
General Authority: NDCC 28-32-02, 49-02-27
Law Implemented: NDCC 49-02-27

69-09-09-06. Decommissioning plan.

1. ~~Prior to the commencement of operation construction operation of a commercial wind energy conversion facility or wind turbine, the facility or turbine owner or operator shall file a decommissioning plan with the for commission review the estimated decommissioning cost per turbine, in current dollars at the time of filing, for the proposed facility or turbine and a comprehensive that describes any expected effect on present and future natural resource development, and how the facility or turbine owner or operator plans to pay for decommissioning the facility or turbine as required by section 69-09-10-05 at the appropriate time financial assurance. The commission may at any time require the owner or operator of a commercial wind energy conversion facility or wind turbine to file a report with the commission describing how the facility or turbine owner or operator is fulfilling this obligation.~~
2. When the decommissioning plan is filed with the commission pursuant to section 69-09-09-06(1), the decommissioning cost estimate and the detailed plan of financial assurance sufficient to ensure decommissioning are subject to commission approval. The cCommission shall take-make a determination on the decommissioning cost estimate and the detailed plan of financial assurance decommissioning plan no later than sixty days six

months after the decommissioning plan is deemed complete by the commission.

3. A decommissioning cost estimate for a facility:
 - a. Must be made by a professional engineer licensed by the State of North Dakota and at the owner's expense;
 - b. May include a decommissioning cost estimate including salvage value in addition to the decommissioning cost estimate excluding salvage value;
 - c. ~~Must be updated and filed with the commission ten years after initial approval of the decommissioning plan, and then continue to be updated and filed with the commission every five years until decommissioning is complete.~~
4. ~~The commission may at any time require the owner to file an updated decommissioning plan.~~
4. The decommissioning plan must be updated and filed with the commission ten years after the date of commencement of commercial operation of the facility, and then continue to be updated and filed with the commission every five years thereafter until decommissioning is complete.

History: Effective October 1, 2008; amended effective October 1, 2010; _____

General Authority: NDCC 28-32-02, 49-02-27

Law Implemented: NDCC 49-02-27

69-09-09-07. Existing facilities.

~~Owners~~ The owner and operators of an existing commercial wind energy conversion facilities facility shall file with the commission the information required in section 69-09-09-06 within one year after July 1, 2008 provide financial assurance after the tenth year of operation sufficient to complete decommissioning.

History: Effective October 1, 2008; _____
General Authority: NDCC 28-32-02, 49-02-27
Law Implemented: NDCC 49-02-27

69-09-09-08. Financial assurance.

~~After the tenth year of operation of a commercial wind energy conversion facility or wind turbine, the commission by order may require the owner or operator to secure a performance bond, surety bond, letter of credit, corporate guarantee, or other form of financial assurance that is acceptable to the commission to cover the anticipated costs of decommissioning the commercial wind energy conversion facility or turbine. The commission may accept a corporate guarantee if the corporation has a tangible net worth of at least ten million dollars, a ratio of total liabilities to net worth of 2.5 or less, and a ratio of current assets to current liabilities of 1.2 or greater; or if it has an investment grade current rating for its most recent bond issuance of "Baa" or higher as issued by Moody's Investors Service "BBB" or higher as issued by Standard and Poor's Corporation, or an equivalent rating by any other nationally recognized statistical rating organization, as defined and approved by the United States securities and exchange commission.~~

1. Prior to theUpon commencement of construction of a facility, the owner shall provide financial assurance equal to ten percent of the estimated cost of construction of the facility that may be used to decommission the facility in the event it is abandoned. With commission approval, bonding requirements at the county or township level may be considered part of the required financial assurance. Within sixty days of receipt of written notice from the owner that the facility is commercially operational, the commission shall return or release said financial assurance provided to the commission.

- 1.2. Following commission approval of the decommissioning cost and detailed plan of financial assurance in the decommissioning plan pursuant to section 69-09-09-06(2), the owner shall provide financial assurance that is acceptable to the commission to ensure complete decommissioning of the

facility at the end of its useful life in the following manner: twenty-five percent of the total decommissioning cost upon commencement of commercial operation; an additional twenty-five percent of the total decommissioning cost five years after the date of commencement of commercial operation; and the remaining fifty percent of the total decommissioning cost ten years after the date of commencement of commercial operation. Within sixty days of completion of decommissioning, the commission shall return or release said financial assurance.

2-3. Financial assurance may be in the form of a performance bond either as, or a combination of, a surety bond, irrevocable letter of credit, self-guarantee, parent guarantee, or another form of financial assurance that is acceptable to the commission to cover the anticipated costs of decommissioning.

~~3. The commission may allow the owner to provide financial assurance through an incremental bond schedule. To be given consideration, an incremental bond schedule must include an initial bond increment prior to commencement of construction.~~

4. The commission may accept a self-guarantee or parent guarantee if:

a. The owner has been in continuous operation as a business entity for five years preceding the application. The commission may accept a self-guarantee with less than five years of continuous operation if guaranteed with a parent guarantee and the parent company has been in operation for at least five years preceding the application; and

b. The owner or parent guarantor has or is at least one of the following:

- (1) A current rating of "A" or higher for its most recent bond issuance as issued by Moody's Investors Service, Standard and Poor's Corporation, or an equivalent rating by any other nationally recognized statistical rating organization, as defined and approved by the United States securities and exchange commission, that is acceptable to the commission;
 - (2) A tangible net worth of at least ten million dollars, a ratio of total liabilities to net worth of 2.5 or less, and a ratio of current assets to current liability of 1.2 or greater; or
 - (3) An electric public utility as defined by N.D.C.C. § 49-03-01.5(2).
- c. The total amount of an outstanding self-guarantee for decommissioning may not exceed twenty-five percent of the owner's tangible net worth in the United States.
 - d. The combined total amount of an outstanding self-guarantee and parent guarantee for decommissioning may not exceed twenty-five percent of the owner's and parent guarantor's combined tangible net worth in the United States.
5. If any financial assurance is modified, cancelled, suspended or revoked, the Owner shall immediately notify the commission and provide financial assurance as soon as practicable sufficient to ensure complete decommissioning.
 6. Within sixty (60) days of an owner filing an updated decommissioning plan pursuant to section 69-09-09-06(4), the commission may order an owner to provide ~~require~~ additional financial assurance up-on a finding by the commission that the then current financial assurance for a facility is no longer sufficient to ensure complete decommissioning.

History: Effective October 1, 2008;
General Authority: NDCC 28-32-02, 49-02-27
Law Implemented: NDCC 49-02-27

69-09-09-09. Failure to decommission.

If the ~~commercial wind energy conversion facility~~ owner or operator does not complete decommissioning, the commission may take ~~such action as may be necessary~~ to complete decommissioning, including ~~requiring~~ action to require forfeiture of the a bond. The entry into a participating landowner agreement shall constitute agreement and consent of the parties to the agreement, their respective heirs, successors, and assigns, that the commission may take such action as may be necessary to decommission a ~~commercial wind energy conversion facility or wind turbine~~, including the exercise by the commission, commission staff, and their contractors of the right of ingress and egress for the purpose of decommissioning the ~~commercial wind energy conversion facility~~.

History: Effective October 1, 2008;
General Authority: NDCC 28-32-02, 49-02-27
Law Implemented: NDCC 49-02-27

2-27-17

PSC
copy

Dear ND PSC Commissioners:

My name is Andy Buntrock from Menoken, ND and I am here today to personally support the language you have proposed, to add a requirement for aircraft detection and lighting systems for wind energy conversion facilities in Chapter 69-06-08 section 6 part n. As well as the language in Chapter 69-09-09 to strengthen the decommissioning rules for wind facilities, prior to construction.

I am really glad to see the commission starting to level the playing field for energy in our state. I believe in a blended portfolio of energy sources, but we need to ensure those sources are competing on a level playing field. Despite your efforts here, wind is still enjoying a ~~subsidy~~ subsidy from the Federal government according to the EIA. This is drastically impacting coal dispatch and we have already seen shutdowns and possible job losses in the newspapers. You will have wind lobbyists that will tell you with new regulation, they will have to pull out of the state or that this will greatly hamper the build out in our state. If putting some simple restrictions on to help ensure that wind facilities are decommissioned properly similar to coal, natural gas, and oil will hurt them financially, we should probably be taking a closer look at the financials, ~~and~~ Or if putting increased setback limits in place means site selection will cost slightly more, then we need to do that to ensure those not participating in the facility are treated fairly.

We are standing at the threshold of a wind facility build out that will change our landscape for our and our kids' lifetimes. We will see massive towers 600-700' high according to GE's website that will span tens of thousands of acres of North Dakota's native pastures, fertile fields and next to rural homes. If not sited properly you will see these facilities hamper future development of our larger metropolitan areas like Bismarck. On top of the natural and physical impacts of these towers, there is a human impact as well and I would like to tell you about that first hand.

My wife KariAnn and my two little girls of three and one year old live on the front lines of a proposed project just southeast of Bismarck. We purchased this land back in 2006 with our savings and have poured sweat equity and all of our pennies into it to make it a home for our kids to raise a few calves and learn the important lessons that a farm affords. We built a home out there and now are facing the nightmare of a potential wind project that began after we were owners. Could we have signed up; yes we could have, but we have a special situation on our hands, in that my wife KariAnn has epilepsy and we aren't able to control her seizures with medications anymore. Our land borders one of the few participating landowners in our area and just to the south of us a few miles we have another neighbor who has also been diagnosed with epilepsy as well and whom has similar concerns. The current setbacks in 69-06-08 from both dwellings and nonparticipating lands are not sufficient to protect us.

Did you know that right now in our county a hog facility setback limit from a dwelling is 1.5 miles! That's nearly 8,000 feet compared to a setback of 1,750 feet for a 600-700 foot wind tower. These commercial facilities emit significant audible noise, can be seen for almost 50 miles away, and can potentially throw ice. They have been documented to emit both shadow flicker and flash that has been proven to stimulate seizure activity, according to a study in Epilepsia, the Official Journal of the International League Against Epilepsy. This study was done by Graham Harding at the Neurosciences

Institute Aston University and goes on to note, "...that the risk of seizures does not decrease appreciably until the viewing distance exceeds 100 times the height of the hub..."

Tell me commissioners if you had a family member with an illness and the very place you lived in became poisonous for them, what would you do? Sell the place perhaps, then again who would want to purchase a place that has neighboring wind towers over it? This is what my family is dealing with these days and I would like your support in striking a balance between non-participating landowners and wind facilities before it is too late and this build out is finished. To do this I would like to recommend the following amendments for consideration:

- Uphold the changes you are proposing today, these will help reduce light pollution and ensure bonding and financial assurances prior to construction, so that we won't have a boneyard of unused turbines around our landscape. This will help hold wind facility owners accountable to similar standards as other energy sources such as coal.
- Increase setbacks based on nonparticipating landowners' borders, not just dwellings. We need setbacks that will still allow wind build out, while protecting property rights of those that do not sign. Just because someone doesn't have a dwelling on their property now doesn't mean their property rights should be infringed upon if they want to construct at a later date, but are then surrounded by wind towers within 1.1x the height of the tower from their property. In most counties and townships you would not be able to obtain a building permit at these distances. A setback of 10 times the height of the tower would allow for sufficient setback for those not participating while not overly impeding potential siting locations for the facilities.
- Impose a penalty and enforcement action for coercion and false statements by wind facilities and their representatives. Burleigh County has rulings on this, but this should be moved to a state wide level to ensure those being asked to sign contracts are being treated fairly and just.
- Step up violation and penalties for those facilities that are violating the very rules that are in place. There are too many reports of decibel levels that are above the allowable levels, damaged roads that are not repaired, issues with maintenance on the towers that are not handled quickly by the wind facility owners. There needs to be accountability for those that are not being the good neighbors that we all strive to be.

I sincerely appreciate your time and consideration on this matter. These thoughts come from me and my family personally and we truly think there is middle ground that would support a strong North Dakota economy with many different energy sources, while protecting the livelihood and property of those of us that live here.

Andy and KariAnn Buntrock

~~XXXXXXXXXX~~
buntrock@bektel.com

-Info-Public Service Commission

From: Chris Kunkle <CKunkle@windonthewires.org>
Sent: Thursday, February 23, 2017 12:39 PM
To: -Info-Public Service Commission
Cc: Schuh, John M.; Jerry Lein (jrl@oracle.psc.state.nd.us); Nitschke, Darrell D.
Subject: Wind on the Wires Written Comments on PU-17-023
Attachments: WOW - PU17-023 Decommissioning Comments.pdf

CAUTION: This email originated from an outside source. Do not click links or open attachments unless you know they are safe.

Hello:

Please find attached written comments from Wind on the Wires on the North Dakota Public Service Commission's proposed rulemaking on decommissioning rules for wind facilities (PU-17-023).

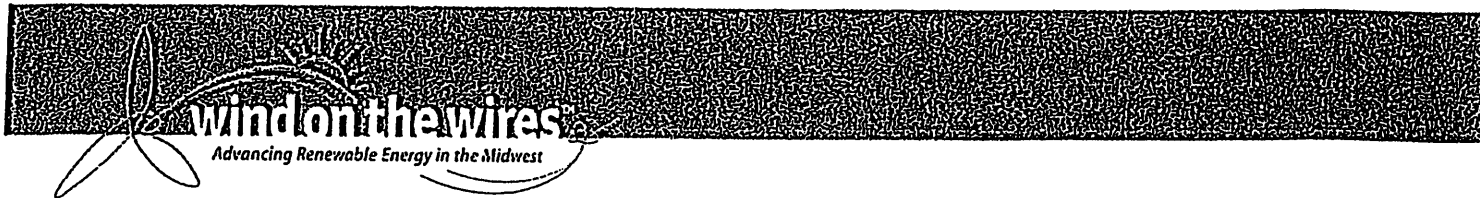
Please let me know if you have any questions.

Thank you,



Chris Kunkle | Regional Policy Manager – West
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16 PU-17-23 Filed: 2/23/2017 Pages: 5
Comments regarding proposed rulemaking



**Comments of Wind on the Wires to the North Dakota Public Service Commission on
Proposed Rulemaking on Decommissioning of Wind Facilities (PU-17-23)**

Thank you for the opportunity to provide formal comments to the North Dakota Public Service Commission (PSC) regarding its proposal to modify Section 69-06-08-01, the energy conversion facility siting criteria, and Chapter 69-09-09, the state's decommissioning standards for wind energy facilities. Wind on the Wires is a regional organization focused on the policy, regulatory, and technical issues affecting the clean energy industry in the Midwest. Our members include private developers of large-scale wind and solar projects, turbine manufacturers, construction companies, and other businesses that supply goods and services to this industry. We hope that our regional perspective will be useful as the PSC considers changing its decommissioning rules.

With over 2740 MW installed and an additional 750 MW under construction or in advanced stages of development, North Dakota is a leader in wind energy development. The majority of this development has occurred in the last 8 years. The state's stable regulatory climate, all-of-the-above approach to energy, world-class wind resource, and access to transmission has attracted significant investment in wind energy, resulting in billions of dollars in economic activity, millions in payments to host landowners and rural communities, and thousands of good-paying jobs. As the PSC considers substantive changes to the rules affecting wind development, we encourage you to continue the state's reputation as friendly towards business of all kinds, including the wind industry, which now employs over 100,000 Americans.

We applaud the PSC's work to address concerns raised by local units of government and host landowners concerning the decommissioning of wind turbines in the state. Maintaining and growing public support for wind energy is critical for our industry and the prospects of a wind farm being abandoned can be daunting. Accordingly, we seek to ensure that the interests of landowners and local governments are met, while also maintaining fair and competitive rules for the development of wind energy.

There are currently 82,213MW of installed wind capacity across the country. To our knowledge, very few projects have been fully decommissioned and the vast majority of inactive turbines that are reported in the U.S. are decades old. Wind projects utilizing state-of-the-art technology – especially those located in the wind-rich Midwest – are even less likely to be abandoned. In fact, we are not aware of a single abandoned wind project across our nine-state footprint. Due to the value of these facilities and the seemingly growing interest in lower-carbon electricity from consumers and businesses, the demand for both existing and new wind assets appears sure to grow, not wane. Across our region, we have seen tremendous interest from wind companies and other stakeholders in repowering wind facilities that were built in the late 1990s and early 2000s, rather than retiring and removing them. Given the significant improvements in turbine technology, repowering projects are proving to be a cost-effective opportunity for increasing output and extending the life of these assets, to the benefit of landowners and taxpayers in rural communities.

Wind on the Wires is also unaware of a single project that was abandoned as a result of a company's financial woes. However, there are several instances of a wind facility being sold to a more financially stable entity, ensuring uninterrupted and continued operation of that asset. The likelihood of abandonment, given industry trends, is very low and the state's decommissioning rules should reflect that market reality.

Unfortunately, there are multiple provisions in the current PSC proposal that, if implemented, would prove to be unduly burdensome to the wind industry. There are also several areas in the proposal that we believe need additional clarification. We hope our feedback and input can help the PSC craft rules that allow for continued growth of the state's vibrant wind sector, while also ensuring that landowners and local units of government are protected in the unlikely event of abandonment of a wind farm.

We address these concerns individually and in the order in which they appear in the PSC's proposal:

69-06-08-01(5): Selection Criteria – Light-Sensitive Land Uses

The PSC proposes to add the impact on "light-sensitive land uses" to the criteria to be considered as applicants demonstrate that any significant adverse effects from projects are minimized. Based on our comments below on Section 69-06-08-01(6), we believe this proposal is unnecessary. However, if this provision is kept, we seek additional clarification from the PSC on the definition of "light-sensitive land uses".

69-06-08-01(6): Policy Criteria – Lighting Systems

We encourage the PSC to allow other technologies designed to mitigate lighting impacts to be considered in this section, rather than only aircraft detection systems. For example, a new technology called "LIDS™" dims the intensity level of lights on a wind farm based on surrounding weather and visibility. This technology is being tested by the Federal Aviation Administration this spring in Oklahoma. By allowing for other FAA-approved technologies, we believe this minor change would provide industry with additional flexibility, while also achieving the same level of lighting mitigation. Should the PSC seek to modify this provision to allow for this flexibility, they could require a commitment to install light mitigating solutions subject to the approval of and documented in the latest FAA standard 70/7460-1.

Also, in protecting the need for a streamlined regulatory approach, we suggest the PSC modify the current language to allow a project that has not yet obtained full FAA approval to obtain a site permit. The FAA approval process can be somewhat fluid until and perhaps even through early stages of construction. As written, there is concern that if the FAA denies a particular lighting mitigation mechanism, the project would, at best, need to amend their permit, and at worst, be denied their permit. We want to preserve flexibility, while ensuring construction and operation occur in a timely fashion.

69-09-09-01.2: Certificate of Operation

We understand the need for reporting to the PSC to ensure turbines are not abandoned but we caution that developing a public report that aggregates commercially sensitive information could expose wind companies to a competitive disadvantage. One potential solution is to require that

the report be confidential, thus giving the PSC the information they need, while also protecting companies from exposing competitive information. Alternatively, the PSC could require the wind company to provide only easily attainable information, such as nameplate capacity and annual megawatt-hour output, then require an explanation of why any turbines are not operational.

69-09-09-01.5b: Decommissioning Cost Estimate

This cost estimate should be based on present day dollars. We believe this to be the intent of the PSC's proposal, although we seek to clarify and confirm this point.

Wind on the Wires also believes the PSC should consider salvage value of turbines and equipment in the estimated cost of decommissioning. Striking the language excluding the consideration of salvage value would better align the rules with the provision proposed in 69-09-09-06(3)(b), which allows the PSC to include salvage value when determining decommissioning costs. We seek to ensure the PSC has the flexibility to consider decommissioning costs both with and without considering salvage value.

69-09-09-03.3: Definition of "End of Useful Life"

Currently, the proposal states a facility is "presumed to be at the end of its useful life if its annual capacity factor is less than ten percent." We contend that a ten percent capacity factor is an arbitrary number; therefore we believe it can be improved. Though unlikely, there are many factors for why a wind project could have a low capacity factor, including factors beyond the control of the wind company. The PSC could use the same timeline for defining abandonment for defining the end of useful life, which is currently twenty-four consecutive months without generation.

69-09-09-06.1: Decommissioning Plan Timeline

This provision is currently a major concern from our perspective. As written, it appears that a wind company may not begin construction until the PSC has approved their decommissioning plan, which could take up to six months. North Dakota's streamlined regulatory approach and lack of bureaucratic red tape makes the state attractive for investment. However, this provision moves in the opposite direction and will have a considerably negative affect on the future of development in the state. The PSC should ensure that the decommissioning plan is considered simultaneously with the site compatibility permit, instead of handling the two approvals in series, thus extending the timeline for construction.

We still have concerns about the proposal even if these two permits are considered jointly. We believe requiring a decommissioning plan at this time will result in either an unnecessary delay of project construction or a series of estimates that cannot be expected to be reasonably accurate, due to the lengthy lead time. For example, final turbine model selection is often made after receiving a site permit from the ND PSC and the specifics of a decommissioning plan may be contingent on this type of information.

Tightening the six-month timeline would also represent an improvement from our perspective.

69-09-09-08: Financial Assurance

This provision is the single most important to us, as it results in the greatest economic impact on the wind sector. Wind on the Wires believes there is an opportunity to improve the decommissioning rules in a way that protects the interests and rights of landowners without imposing an excessive burden on wind companies. However, the current proposal, which mandates the entirety of the financial guarantee to be placed before commencement of construction, is a blunt instrument. Instead, we encourage the PSC to work with industry in good faith to solve the issue at hand using a more precise approach.

For example, we understand that the PSC is concerned about the prospect of a wind facility prematurely commencing construction in order to qualify for the federal Production Tax Credit, then being abandoned, leaving landowners and local jurisdictions to bear the costs of decommissioning the preliminary construction work. Rather than requiring the wind company to post a financial assurance for the entire proposed project up front, perhaps the PSC could allow an incremental or phased-in approach. A company could post, for example, a portion of the decommissioning costs upon the commencement of construction, a supplemental portion by the date of commercial operation, and the remainder at some point later during operation. We believe this approach recognizes that the decommissioning costs for early-stage abandonment would be far lower than the costs for decommissioning a full project.

We also seek to ensure that financial assurances are not double counted. For example, different levels of government with taxing authority can also potentially impose a bond requirement. Therefore, we encourage the PSC to consider local bonding requirements as part of the total required financial assurance.

We also seek clarification from the PSC about the definition of the commencement of construction. For example, this could be defined several different ways, including the beginning of physical work or when the notice to proceed is given to an EPC contractor.

Lastly, Wind on the Wires does support modifying the proposed requirement of an "A" bond rating to allow the PSC to consider a corporate/parental guarantee of "BBB-" as well. We defer to the comments filed by industry regarding the specifics of the financial mechanisms that are most viable, however we reiterate that flexibility is critical.

Conclusion

Based on recent trends in pricing, announcements from utilities and wind companies, as well as increasing demand from residential, commercial and industrial customers for low-cost, clean energy, we anticipate continued development of wind power in our region. Rather than abandonment, we see example after example of companies reinvesting in existing wind farms to ensure continued and improved operation. As you are aware, North Dakota's electric grid is not insulated from the broader trends occurring across the Midwest. Numerous factors must align for a state to reap the benefits of this trend, not the least of which is a stable and competitive state regulatory process. If a state's permitting regime becomes excessively onerous relative to neighboring states, there is a clear risk of lost economic development, job creation, and new tax revenue. By maintaining a balanced set of rules for the wind industry, we can ensure that North Dakota is well-positioned to benefit from the continued growth of wind power. We believe our comments on the PSC's proposed decommissioning rule changes will help achieve this goal.



COMMENTS OF BASIN ELECTRIC POWER COOPERATIVE
Public Service Commission Public Utilities - Wind Decommissioning Rulemaking
Case No. PU-17-23

Basin Electric Power Cooperative (Basin Electric) is a regional, consumer-owned, generation and transmission cooperative formed in 1961 to supply supplemental power to a consortium of rural electric distribution cooperatives. Basin Electric's core business is generating and delivering electricity to wholesale customers, primarily our member systems. As of the end of 2016, Basin Electric owns 4,015 megawatts (MW) and operates 5,003 MW of electric generating capacity including coal, wind, natural gas, and nuclear. Basin Electric supplies 141 rural electric member cooperative systems with wholesale electric power who in turn serve approximately 3 million consumers in a nine-state area.

Basin Electric respectfully submits the following comments to the Public Service Commission on Case No. PU-17-23. Our comments are related to North Dakota Administrative Code chapter 69-09-09 regarding Wind Decommissioning Administrative Rules. Our comments are regarding two sections within 69-09-09, section 04 and section 09.

The revision in 69-09-09-04 from eight months to 12 months is suggested to allow for any weather delays or concerns within a given timeframe and allow for circumstances that could arise with delays due to severe snowfall, or abnormal rainfall occurrences.

The suggested revisions in 69-09-09-08 relate to the rating category where the occurrence of an "A minus" rating would be allowable within the "A" category, as well as for situations where a split rating occurs among more than one rating organization, thus allowing for the commission to accept the higher of the organization's ratings.

Our specific draft requests are outlined below in red:

69-09-09-04. Decommissioning period.

Page 4:

The facility owner or operator shall begin decommissioning a commercial wind energy conversion facility or wind turbine within eight12 months after the time the facility abandonment or turbine reaches the end of its useful life, as determined in section 69-09-09-03. Decommissioning must be completed within eighteen twenty-four months after the facility abandonment or turbine reaches the end of its useful life unless the commission approves a plan specifying the steps and schedules to return the facility to operation.

69-09-09-08. Financial assurance.

Pages 9 and 10 Section 4. b. (1)

(1) A current rating in the "A" category or higher for its most recent bond issuance as issued by Moody's Investors Service, Standard and Poor's Corporation, or an equivalent rating by any other nationally recognized statistical rating organization, as defined and approved by the United States securities and exchange commission, that is acceptable to the commission. If an organization has different ratings among various rating organizations, the commission shall accept the higher of the ratings.

Again, Basin Electric appreciates the opportunity to comment and welcomes additional dialogue and conversations with the commission regarding these and any other administrative issues.



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**STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION**

**Public Service Commission
Public Utilities
Rulemaking**

Case No. PU-16-775

**Public Service Commission
Public Utilities – Wind Decommissioning
Rulemaking**

Case No. PU-17-23

**TESTIMONY OF FRANK COSTANZA,
TRADEWIND ENERGY, INC.**

February 27, 2017

Good Morning Commissioners.

My name is Frank Costanza. I represent Tradewind Energy, Inc. ("Tradewind"). I am an Executive Vice President and have been a member of the company's senior management team since joining Tradewind in 2005. Prior to joining Tradewind, I held senior executive positions with Aquila Energy from 1987 thru 2001. Headquartered in Kansas City, Aquila operated regulated utilities in 8 states and several foreign countries and was also involved in various aspects of the energy industry. While at Aquila, I managed its independent power generation development subsidiary, which owned and operated over 4,500 megawatts of fossil fueled and renewable hydro energy power generation facilities across the United States and abroad.

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Comments

1

Tradewind Energy, Inc.
Frank Costanza, Exec. VP

Tradewind Energy, Inc.
Frank Costanza, Exec. VP



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I appreciate this opportunity to testify before you today regarding the Commission's plans to amend certain rules relative to the development and decommissioning of wind energy generation facilities in North Dakota.

Tradewind is headquartered in Lenexa, Kansas. It is one of the largest privately held independent wind and solar project development companies in the United States. Founded in 2003, the company has grown from its three co-founders to more than 100 employees specializing in a variety of areas, including meteorology, geographic information systems, environmental permitting, real estate, and engineering. Tradewind has 3 GW of contracted and operating renewable energy projects, totaling more than \$5 billion in project capital investment, and is actively developing over 6 GW of wind assets and 3 GW of solar assets across the country. Tradewind is financially partnered with Enel Green Power North America ("EGPNA"), a wholly owned subsidiary of Enel S.p.A, a global energy company headquartered in Rome, Italy. Globally, Enel provides energy services to more than 61 million customers and operates installed generating capacity of approximately 87 GWs. In coordination with EGPNA, Tradewind developed the 150 megawatt Lindahl Wind Project in Williams County, North Dakota, which will provide electricity to Basin Electric Power Cooperative pursuant to a long-term Power Purchase Agreement.

EGPNA and Tradewind filed written comments regarding the Commission's proposed rules on February 21, 2017, which included our suggested revisions to the rule modifications currently being considered by the Commission. We also supplied supporting comments to explain the rationale behind our suggested modifications to existing and proposed rules.



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Today, I would like to focus my comments on a few key issues addressed in our written comments, and then answer any questions you may have regarding our proposed revisions.

I. N.D.A.C. § 69-06-08-01(6)(n) – Siting Policy Criteria (Case No. PU-16-775).

I will begin with proposed Section 69-06-08-01(6)(n). This section addresses the need for wind projects to incorporate certain radar activated aviation detection lighting systems as a policy criteria for wind energy conversion facilities. This advancement in technology for wind projects is being considered in other states, and is one that we do not oppose in general. However, with any new technology, particularly one that helps manage aviation safety, we believe it prudent to install tried and proven equipment.

At this time, we know of only two suppliers of this relatively new FAA-approved aviation detection and lighting system. In addition, these systems are only now beginning to be installed. Dependent upon the size of a project, the cost of installation can run into the millions of dollars. Because of this, we are concerned with several aspects related to the installation and long-term operation of this equipment. These concerns run to (a) supply chain capability to timely deliver equipment for construction, (b) ability to support ongoing maintenance and replacement part needs, and (c) the overall cost when such few number of approved vendors are currently available.

To address these concerns, we propose a couple of revisions to Section 69-06-08-01(6)(n).

First, we propose adding that the commitment is “to use commercially reasonable efforts” to install a system, which aligns with the aviation detection and lighting system-language included in recent Commission siting orders.



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Second, we propose making the commitment “subject to the availability of a FAA-approved system,” to account for the near term potential for limited supply of approved systems.

II. N.D.A.C. Ch. 69-09-09 – Decommissioning Rules (Case No. PU-17-23).

With respect to the proposed decommissioning rules, I will focus on three sections: Section 69-09-09-03(3), Section 69-09-09-06 and Section 69-09-09-08.

A. Section 69-09-09-03(3).

Under the Commission’s proposed Section 69-09-09-03(3) language, a facility would be presumed to be at the end of its useful life if its annual capacity factor is less than ten percent.

We are concerned with the ten percent annual capacity factor threshold for a couple of reasons. Not only is it an arbitrary threshold, but it also does not account for changing market conditions that can occur over the 20 to 30 year life of a project, or catastrophic events, which may result in a facility falling below the ten percent annual capacity factor threshold. For instance, the loss of the main step-up transformer at the interconnection point with the transmission grid substation could result in a facility-wide outage lasting more than a year. Depending upon market conditions, these transformers typically require 10 to 14 months to secure and install. This very scenario occurred on Tradewind/Enel’s Smoky Hills wind project in Kansas.

Additionally, the Southwest Power Pool (“SPP”) integrated market, in which the North Dakota utilities participate, was only recently expanded. The SPP’s system of economic dispatch affects a multi-state



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region, including North Dakota wind farms and their customers. SPP market dispatch protocols continue to evolve and could affect the factors upon which wind project operations are decided. Simply, long-lived assets like wind projects need flexibility to operate under today's and tomorrow's yet-to-be-established operating rules.

We understand that the end of useful life presumption may be rebutted with a plan approved by the Commission. However, that creates uncertainty, and possible delay, particularly since the members of the Commission change over time.

For these reasons, we propose retaining the language in the current Section 69-09-09-03, which presumes a facility is at the end of its useful life if it "generates no electricity for a continuing period of twenty-four months." This approach is consistent with similar provisions adopted by other states and provides the flexibility that is needed for generating assets expected to operate for decades.

B. Sections 69-09-09-06 and 69-09-09-08.

Turning to Sections 69-09-09-06 and 69-09-09-08, we understand these sections would require wind energy facility owners to do two things before they could begin construction of a facility: First, an owner would need to file and receive Commission approval of a decommissioning plan; and, second, an owner would need to provide financial assurance sufficient to cover the total approved cost of decommissioning. That financial assurance would remain in place during construction and through the life of the facility.



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We have two key concerns:

First, we believe the need to receive Commission approval of a decommissioning plan and provide financial assurance to the Commission before beginning construction would significantly delay projects.

We understand that the Commission is contemplating that a facility's decommissioning plan would be submitted and processed at the same time as the certificate of site compatibility application. However, decommissioning plans are based on final turbine selection, which is often determined just prior to the time of construction, and well after the certificate of site compatibility and other permits need to be obtained. Additionally, since the Commission has not previously approved decommissioning plans, and the approval process is not laid out in the proposed rules, there is uncertainty regarding the standard, the process, and the timeline that will be applied.

Second, we believe requiring full financial assurance to be in place prior to construction, and maintained throughout the life of the facility, places an unnecessary economic burden on owners, utilities, and ultimately retail ratepayers. We have not identified any situations where utility scale facilities (those 50 MW or greater) have been permanently retired or abandoned, but not decommissioned. Additionally, while we know there is a concern that an operating facility may be abandoned due to bankruptcy, we researched and have not been able to identify any situations where that has occurred for a utility scale wind project in the United States since the late 1990's, which coincides with the modern era of utility scale wind development. One reason wind projects are not abandoned is due to the underlying financing structure utilized to pay for the project's construction cost. Historically wind projects are financed roughly 50 percent by the project owner and 50 percent by third-party financiers. Underlying this financing is one key contract,



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which is the Power Purchase Agreement ("PPA"). Operating wind projects typically enter long-term PPAs which provide the stream of revenue that supports project operations and return of capital, so they are valuable assets that other companies will acquire and continue to operate. In addition, the third-party "Project Finance" methods employed to fund the construction of utility scale wind projects provide the right for the project's third-party "financiers" to step in and take control of the project, in the event of financial difficulty, in order to protect the very sizable investment they have extended to the project owners to build these assets. In order to make wind project-delivered energy prices competitive in the market, the project financing structure provides first for the return of third-party capital over a period of ten years. After third-party capital is returned the financing structure allows for the project owners to earn a return of and on the capital they have invested. Consequently, the project owners are also highly incentivized to operate and maintain their projects, since their capital is at risk and not returned until the later years (i.e., years 10 thru 20 and beyond) of a project's life. From our experience and research, the risk of a project being abandoned once it is operating, or being retired but not decommissioned, is negligible as each of the principal investors are induced to operate a project while the PPA remains operative.

Given the minimal risk that an operating project will be abandoned before the end of its useful life, we believe the Commission's current approach of requiring financial assurance after year 10 of operations is more than sufficient to address the potential that the Commission may need to decommission a project and we suggest it not be changed. However, we understand the concern still exists, for the Commission, as well as the public. Consequently, our goal was to propose a decommissioning plan and associated financial assurance submittal process in conceptual form for further discussion that is a compromise; something that acknowledges, but keeps in perspective, the decommissioning risk.



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Alternative Decommissioning and Financial Assurance Process:

The Commission's proposed rules contemplate two decommissioning triggers: (1) abandonment (when construction is started, but never completed); and (2) end of useful life.

Our proposal is to require separate financial assurance for each scenario.

With respect to abandonment, we propose that, upon construction of a facility, an owner provide financial assurance equal to ten percent of the estimated cost of construction of the facility. The underlying support for this level of security is outlined in our formal comments. With Commission approval, we also believe that local bonding requirements should be considered part of the required financial assurance to avoid duplicate obligations. Following completion of construction, the construction period financial assurance would be returned or released. Based on our calculations, providing financial assurance equal to ten percent of the estimated cost of construction of the facility would provide more than enough security to fully decommission the facility if construction is not completed, and most importantly without the potential delay associated with requiring a Commission-approved decommissioning plan prior to construction.

With respect to end of useful life decommissioning, we propose that an owner provide financial assurance in the following manner: twenty-five percent of the total decommissioning cost upon commencement of operation; an additional twenty-five percent of the total decommissioning cost five years after the date of commencement of commercial operation; and the remaining fifty percent ten years after the date of commencement of commercial operation. The total amount of the financial assurance would be based on



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the owner's decommissioning cost estimate and detailed plan of financial assurance, and approved by the Commission prior to the commencement of the wind project's operation.

We believe our proposal appropriately balances the risk that the Commission may need to complete decommissioning of a wind energy conversion facility against the cost that the financial assurance requirement imposes on wind companies, utilities, and the utility ratepayers/consumers.

III. Conclusion.

Thank you for the opportunity to provide testimony, and I am happy to answer any questions.

STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION

Public Service Commission
Public Utilities
Rulemaking

Case No. PU-16-775

COMMENTS OF DRAKE LIGHTING, INC

The North Dakota Public Service Commission ("Commission") has proposed changes to N.D.A.C. § 69-06-08-01 (6)(n): Policy Criteria – Lighting Systems. Drake Lighting, Inc. ("Drake") the US distributor for Technostrobe, Inc. ("Technostrobe") respectfully provide comments regarding the proposed wording in reference to "aircraft detection lighting systems".

One of the first solutions accepted by the FAA was to decrease the vertical beam of the light. This reduced the amount of light going to the ground lowering the amount of light impact on the community. GPS synchronization was another solution and made all of the lighting flash at the same time. The last of these was to lower the flash rate from 40 flashes a minute to 30fpm.

Light mitigating solutions that are outside the standard lighting equipment are in its infant stages. The ADLS – Aircraft Detection Lighting System ("ADLS") was approved as a light mitigating solution in the 12/04/15 update to the FAA 70/7460-1L. This solution is by no means the last solution to come.

The wording used in this new rule appears to Drake as being too restrictive in light of new product developments. It is our request the Commission review the wording to allow other light mitigating solutions to be proposed as they become available.

Drake would propose the following wording be considered.

n. A commitment to install light mitigating technologies for wind energy conversion facilities subject to Federal Aviation Administration approval.

This simple change will open the door to new solutions. The wording will also provide an incentive for developers to search out new solutions and bring them to the state.

In support of this request I would point out a few details regarding some of the above light mitigating solutions discussed.

Vertical Beam

- Older lighting equipment had a larger vertical beam with a negative beam of up to 10-degrees.
- The next generation of lighting equipment reduced this to 5-degree negative beam.
- The current lighting equipment today offers a zero degree negative beam reducing the light reaching the ground significantly.

ADLS

- These are approved by the FAA site-by-site and can be denied for some of these reasons.
 - Being near an airport.
 - In the path of low flight routes.
 - On or near military training facilities.
 - In the path of frequently used flight routes.
- In some cases it would be required to have lighting on a portion of the farm at all times.
- The default for the lighting equipment is "on" at 100% intensity.
- This system does not mean the lights are off all the time but off when none of the criteria is met for being "on". If any of the below are met the system will turn on at 100% intensity till cleared.
 - When the communication between radar units is interrupted.
 - If individual lights cannot report back to the control unit they must be on at 100% intensity.
 - If the system detects an object at least 1 sq. m in size.
 - If the system loses communication with any item within the system.
 - If equipped with audible controls, a pilot outside of the 3NM range can energize the lights.

LIDSTTM

- Current lighting intensities are designed based on the worst-case scenario of 1-mile visibility. In most localities, this only occurs 15% of the year. Light systems only need to be at 100% intensity around 60 days a year. The rest of the time, a light in dimmed mode is more than sufficient for the safety of the pilots.
- This system is not approved in the US today but is in the trial phase and could be approved for use on specific farms as early as August 2017.
- This system will be approved by the FAA site-by-site. It is not yet known what reason could limit this system from being used. We are hopeful since the lighting system is on all the time it will have less restrictions on its use.
- The intensity of the lighting equipment will operate based on the visibility around the wind farm.
 - 10km plus, the lights will operate at 10% intensity (or 200cd)
 - 5km plus, the lights will operate at 30% intensity (or 600cd)
 - Less than 5 km of visibility, the lights will operate at 100% intensity (or 2,000cd)



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March 7, 2017

VIA EMAIL AND FEDERAL EXPRESS

Mr. Darrell Nitschke
Executive Director
North Dakota Public Service Commission
600 E. Boulevard, Dept. 408
Bismarck, ND 58505-0480

Re: Public Service Commission
Public Utilities
Rulemaking
Case No. PU-16-775
and
Public Service Commission
Public Utilities – Wind Decommissioning
Rulemaking
Case No. PU-17-023

Dear Mr. Nitschke,

Capital Power Corporation respectfully submits the enclosed comments for filing in the above referenced rulemaking cases. If you have any questions, please contact the undersigned.

Sincerely,

A handwritten signature in black ink, appearing to read "Colleen Smith".

Colleen Smith
Capital Power Corporation



25 PU-17-23 Filed 03/07/2017 Pages: 3
Comments on proposed rules
Capital Power Corporation
Colleen Smith, Senior Advisor

25 PU-16-775 Filed 03/07/2017 Pages: 3
Comments on proposed rules
Capital Power Corporation
Colleen Smith, Senior Advisor

**STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION**

**Public Service Commission
Public Utilities
Rulemaking**

Case No. PU-16-775

**Public Service Commission
Public Utilities – Wind Decommissioning
Rulemaking**

Case No. PU-17-023

COMMENTS OF CAPITAL POWER CORPORATION

Capital Power Corporation (“Capital Power”) is an independent power producer that currently owns more than 3,200 megawatts of power generation across North America. In the U.S., Capital Power owns a solar and wind facility, two mixed biomass-fueled plants, and a development portfolio of solar and wind projects, including two wind development sites in North Dakota.

Capital Power appreciates the opportunity to provide formal comments to the North Dakota Public Service Commission (“Commission”) regarding its proposal to modify the state’s decommissioning requirements for wind energy facilities. Decommissioning rules are a critical component of the wind development process and we encourage the Commission to continue its efforts in developing reasonable regulations that properly weigh the public interest while maintaining a fair and competitive environment for the state’s growing wind industry.

Capital Power writes in support of comments submitted by Wind on the Wires, while respectfully offering the following comments on the Commission’s proposed changes to the state’s financial assurance requirements.

69-09-09-08: Financial Assurance

The Commission’s proposed rule requires companies to provide full financial assurance prior to construction of a wind energy facility. Capital Power is opposed to this requirement as it will impose an unnecessary economic burden on wind companies that will hinder future wind development in the state. The proposed requirement also runs counter to the industry norm, as most states, counties and municipalities typically do not require posting of financial assurance until 10 to 15 years after the facility has begun operation. Further, as indicated in comments submitted by Wind on the Wires, the Commission’s underlying concerns addressed by this proposal are perhaps unfounded as there is no instance of a wind facility being prematurely abandoned. Capital Power therefore urges the Commission to maintain the current requirements, or at the very least,

adopt a more reasonable, phased-in approach to posting financial assurance as put forth in comments submitted by Wind on the Wires.

The Commission's proposed rule conditions the ability to post a corporate guarantee on a credit rating of "A" or higher. Capital Power is opposed to this arbitrary requirement as it is too limiting and will likely impose unwarranted additional costs on many companies developing wind energy facilities within the state. The requirement may even deter some companies from making such investments in local communities.

Capital Power urges the Commission to condition the ability to provide a corporate guarantee on a credit rating of "BBB-" or higher, which is still investment grade. This is consistent with the requirements for posting security in most electric power markets, including MISO where investment grade parties (those rated at least BBB-) are able to post credit through parent guarantees or other less onerous mechanisms than posting cash or a bond. Financial markets generally apply the same approach as these ratings offer a mechanism for distinguishing between corporate creditworthiness. This distinction between investment grade companies and others should suffice for North Dakota as well.

To: Public Service Commission

Date: March 7, 2017

Regarding: PSC Case No. PU-16-775 and PSC Case No. PU-17-23

I was unable to attend the hearing on February 27, 2017 for the proposed rule changes related to wind farms. Here are my written comments relating to these changes.

I am in support of the proposed changes to Section 69-06-08-01 and Section 69-09-02-35 requiring new aircraft detection and lighting systems subject to FAA approval. It is my understanding that this will limit the amount of time that flashing lights are visible on a wind tower to only when an aircraft is approaching. I think this will greatly improve our night time skies by limiting the amount of flashing lights that are visible.

I am also in support of the proposed changes to Chapter 69-09-09 which strengthen the decommissioning requirements and requires decommissioning plans with financial assurances. I feel these changes are critical to insuring that our pristine North Dakota landscapes do not become cluttered up with obsolete structures. I also think it is very important to require the owner of the wind towers to be financially responsible for decommissioning the structures when they are no longer in operation.

I would also like to offer some additional changes to Section 69-06-08-01 subsection 2(a)(5) relating to setbacks from the property line of a nonparticipating landowner. I feel that the current requirement of one and one-tenth times the height of the turbine is not far enough. When you consider that these turbines can be up to 700 feet, a set back of 770 feet or less is not sufficient, considering these structures are more than twice the height of the North Dakota State Capitol Building. I live 30 miles south of Bismarck and the State Capitol is visible from my farm.

Thank you for the opportunity to provide input. If you have questions, please feel free to contact me.

Durant Schiermeister
6125 Highway 1804
Hazelton, ND 58544
701-220-0283

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Comments on proposed rules
Durant Schiermeister

26 PU-16-775 Filed 03/07/2017 Pages: 1
Comments on proposed rules
Durant Schiermeister

March 8, 2017

ND Public Service Commission
600 East Boulevard, Dept. 408
Bismarck, ND 58505-0480

Re: Wind Facility Decommissioning Rule Changes

Commissioners and Staff:

My name is Jim Melchior. I recently retired from the coal mining industry after 42 years spending most of my career managing surface and coal properties. I now have more time to spend working on my ranch and my brother's ranch raising cattle near Almont. I'm very familiar with the responsibilities of the Commission with regard to regulating the energy industry. Thank you for the opportunity to comment on the proposed changes to the rules pertaining to wind facility decommissioning.

I have reviewed the proposed changes that I believe will help improve final reclamation of wind facilities. However, I think they fall short in a few areas. I'd like to recommend modification of a few of the proposed changes as follows:

69-09-09-05 No. 2 and 3 – The removal of cables, foundations, buildings, and ancillary equipment should be to a depth greater than two, three and four feet in order to help insure that they will not cause future harm to the surface and to those utilizing the surface after the wind industry is gone. I recommend a depth of at least eight feet which should eliminate heaving due to ground freezing and be below any fencing and structures that future owners may desire to put on the land. I realize that it may be difficult to make such a requirement retroactive, but I believe it is in the best interest of the Commission to protect future owners and users of the land from this buried waste. I would further suggest that the Commission require the facility owner to file of record against the land an Affidavit with a map showing the surveyed location and depth of all remaining waste buried on the land after decommissioning. This will help insure that future owners and users are made aware of the buried waste.

69-09-09-05 No. 4 – The owner should be required to replace both topsoil and subsoil with similar topsoil and subsoil that existed prior to disturbance similar to those placed on the coal industry.

I have a couple general recommendations when the Commission considers siting future wind facilities as follows:

1. Towers should be setback from all section line rights-of way and property lines at least 1.5 times the length of the tower with the blade fully extended. This would help protect the public and adjoining property owners from harm and damages in the event a tower would fall.

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Comments on proposed rules
Jim Melchior

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Jim Melchior

ND Public Service Commission
March 8, 2017
Page 2

2. The red blinking lights must be replaced with something less intrusive to those living in the area. My ranch is about twelve miles from the towers and all I see looking north during the night is red blinking lights. I'm concerned that all these towers will continue to push property values down on lands located within viewing distance of the towers both during the day and night. This isn't so bad to me, but at night, when rather than looking at the big open sky and stars, the focus is on the blinking red lights. I cannot imagine what it would be like living near the towers.

3. I commend the Commission for conducting wind facility siting hearings near the proposed sites. I encourage the Commission to give serious consideration to the concerns raised by those actually living in the area of the propose site. Those are the people that have to live with the decisions you make.

Thank you again for the opportunity to comment on the proposed rule changes. I look forward to reviewing any additional changes.

Respectfully submitted,

Jim Melchior

COMMENTS OF THE MILLS FAMILY

STATE OF NORTH DAKOTA

PUBLIC SERVICE COMMISSION

69-06-08-01, 69-09-02-35 Criteria Changes

We would like to comment on the plan to use radars as a way to control the lights on the wind turbines. Our family and other supporters are not against the idea of utilizing radar on new projects. We however are against the idea of retrofitting the older wind turbines with the radar system unless they have some type of tax credit or state assistance to help pay for it. An alternative plan to radar would be to use LIDS: Lighting Intensity Dimming Solution created by Technostrobe. The reasons for using this system instead of radar are as follows:

- LIDS controls the brightness of lights as to where radar does nothing for the brightness of the lights.
- If visibility is low-the lights get brighter
- If visibility is good the lights get dimmer which reduces the intensity of the light by 90%.
- LIDS is not a detriment as lights on towers only need to be seen 2 miles away for aviation/pilots/plane traffic.
- Currently lights have 2,000cd – which are needed to penetrate 2 miles in the worst possible visibility.
- For an estimated \$2 Million per wind farm LIDS could be installed on the wind turbines.

Once this system comes out it should be used for all upcoming projects. This should be the preferred system over the radar. This is a benefit in areas that have high amounts of air traffic which are not going to notice any benefit from the radar system since the lights will not be turned off often. As with the idea of retrofitting of the radars the same idea goes for using LIDS to convert the older wind turbines which should be done with assistance so as to not cause the shutdown of existing wind farms. LIDS have not been approved by the FAA but will be in the review process soon. For more information about the technology please go to their website <http://technostrobe.com/contact>.

Moving onto the reclamation proposals we do not agree with the suggested changes for 69-09-09-05(2) the original provisions are fair and realistic. The idea of complete removal of underground cables no matter the depth should then be expected of power companies, cable companies, gas companies and even telephone companies. Wade Mills with his 17 years of road construction experience has stated that his employer on most projects there are abandoned lines that are on the blueprints and known to be there. When they are doing a street jobs, the only wires that are removed are those that are dug up under the street, wires on private

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Comments on proposed rules
The Mills Family

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The Mills Family

property are never removed. By requiring wind farms (or any other utilities) to remove these wires, this would do more harm to the native grasslands than if you were to just leave them in the ground. This would penalize just the wind energy providers and be yet another veiled attempt to stop the development of this power source.

The rule change proposed for reclamation bond being 100% funding is another biased proposal as it is not expected for power, gas, or water companies. Not even cable or phone companies are held to this expectation. If anything the funding should be on an incremental system based upon the completion of the project, so if only 25% is completed then the funding should match the completion in this case 25%.

Another point on the proposed changes is the investment grade bond to be class A for wind farms. The federal government considers AAA to BBB- investment grade. Therefore, we feel ND should follow federal guidelines for investments. PSC member Randy Christmann stated during a PSC meeting on February 27, 2017, we require A rating on our coal fired and natural gas power plants. However, they are not building multiple projects in the US, if they were they would not be able to achieve an A rating. We would like to see the rating for wind power bond rating to follow federal government standards.

The fears of a company starting projects and then filing bankruptcy to get tax credits are unfounded according to the testimony by Frank Costanza at the February 27, 2017 meeting. These attempts of rule changes are just blatant attempt to stop future wind development. With the budgetary problems the townships and the state are having this would be foolish to prevent another source of revenue for our local governments.

We would like to comment on the troubling statements that were allowed to be brought up during testimony concerning a proposed wind farm west of Moffit, ND that had no place in the last meeting. In regards to the statement about Whooping Cranes nesting with eggs in the area, is a complete false statement. There is a 2-year independent bird study that will be completed at the end of March 2017 that currently shows no Whooping Cranes in the proposed area. Why this was thrown into the conversation is ridiculous, according to ND Game and Fish website <https://gf.nd.gov/wildlife/id/grassland-birds/whooping-crane>, it states about Whooping Cranes, "Listed as threatened in 1967 and endangered in 1970. Whooping Cranes formerly nested in North Dakota, but no nests have been recorded for more than 100 years. North Dakota provides important stopover habitat as the few birds left in the wild migrate through during both spring and fall." Secondly on a related topic that was brought up during the meeting about the incidental losses of birds to wind turbines. They estimated deaths caused by a turbines in North America are about 134,000 to 230,000 deaths whereas power lines cause an estimated 130 million deaths yet we do not hear the opponents of the wind turbines also clamoring for the end of power lines.¹

We hope that at the remaining meetings the PSC can maintain the topics that are to be

¹ America Wind Wildlife Institute, "A Comprehensive Analysis of Small-passerine Fatalities from Collision with Wind Turbines at Wind Energy Facilities."

<http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0107491>

discussed instead of allowing these off topic statements to detract from the process at hand.

The Mills family respectfully submits these enclosed comments for filing in the above referenced matters.

Sincerely,

THE MILLS FAMILY

Daymon & Lois Mills
21350 Moffit Road
Menoken, ND 58558
701-673-3374

Daymon Mills & Lois Mills

3/8/17
3/8/17

Daymon Jr & Lori Mills
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Daymon Jr & Lori Mills

3/8/17

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Lori Mills 3-8-17

Wade & Kerri Mills

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Moffit, ND 58560

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Wade Mills 3-8-17

Kerri Mills 3-8-17

-Info-Public Service Commission

From: Tricia Fossum <tricia.fossum@bektel.com>
Sent: Wednesday, March 08, 2017 3:21 PM
To: -Info-Public Service Commission
Subject: Case Numbers PU-16-775 and PU-17-23

***** CAUTION: This email originated from an outside source. Do not click links or open attachments unless you know they are safe. *****

Commissioners:

Thank you for your work on wind energy lighting systems and decommissioning.

My husband and I live on a farm/ranch in rural southeast Burleigh County. We are personally affected by a proposed industrial wind farm in our township. Improving lighting systems to reduce light pollution would benefit the entire state. We promote reduction of light pollution as much as possible due to personal intrusiveness on non-participants. Losing the ability to star gaze is also a concern. We are in the flight path to/from Bismarck so any improvements in lighting systems is warranted for our area and would benefit residents of our state.

Decommissioning plans and bonding are important to us as well. Our neighbors have signed 70 year leases for wind energy and it concerns us of what will happen to that land when they are gone and the wind turbine is defunct, if this project goes forward. We want to preserve the agricultural and wildlife rich lands for future generations. We are concerned about our personal land values with a wind farm in our township and want to be sure a decommissioning plan and financial backing are sound.

We fully support Case Numbers PU-16-775 and PU-17-23.

Sincerely,

Tricia Fossum
701-361-9556

29 PU-17-23 Filed 03/08/2017 Pages: 1
Comments on proposed rules
Tricia Fossum

29 PU-16-775 Filed 03/08/2017 Pages: 1
Comments on proposed rules
Tricia Fossum

March 8, 2017

Regarding PSC Case No. PU-16-775 and PU-17-23

Dear ND Public Service Commissioners,

We live in Southeast Burleigh County about 30 miles from Bismarck and live in the footprint of a proposed wind facility. We are very concerned the beautiful landscape of North Dakota is being overrun with wind facilities due to the excessively large federal subsidies wind energy developers are receiving.

We would like to ask your support for the proposed rule changes requiring the aircraft detection lighting systems for wind facilities and the requirement for a decommissioning plan with financial assurance prior to construction of a wind facility.

From our home, we can see the flashing lights at night of two wind facilities approximately 50 miles away. These flashing lights are a source of light pollution and visible for miles. Imagine how disturbing these constant flashing lights are when nonparticipating land owners of a wind facility are forced to live near them.

Although the new proposed rules require wind facilities to remove foundation, building and ancillary equipment to four feet, we believe all concrete should be removed and the land reclaimed as before the wind facility existed. If a land owner wants to develop a site for a building or a well, they would be unable to do so due to massive amounts of concrete. It is also unrealistic to consider the salvage value when decommissioning a wind facility. Due to the enormous size of a wind turbine, it would be extremely costly and require a great deal of labor to disassemble a wind turbine. Bonding should not only be required for decommissioning, but also to ensure financial means are available to make future improvements to existing wind farms as technology improves.

Please consider what is at stake when considering these proposed rule changes. Consider what effect this great influx of wind turbines is having upon our state, its residents, and the wildlife. When federal subsidies are no longer guaranteed, wind energy is no longer profitable, or existing wind energy technology is obsolete our state will be left with a multitude of non-functioning wind turbines littering the landscape if these wind companies are not required to bond.

Thank you for your time and attention. It is greatly appreciated.

Sincerely,

David and Vicki Carpenter

11200 249 St. SE
Moffit, ND 58560

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David and Vicki Carpenter

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Comments on proposed rules
David and Vicki Carpenter

-Info-Public Service Commission

From: Mark Naaden <lztn@bektel.com>
Sent: Wednesday, March 08, 2017 9:05 PM
To: -Info-Public Service Commission
Subject: PU-16-775 and PU-17-23

CAUTION: This email originated from an outside source. Do not click links or open attachments unless you know they are safe.

Good afternoon,

ND PSC

Please consider voting in favor of the proposed rule changes which require new wind facilities to use the new aircraft detection lighting systems and have a decommissioning plan and financial assurance for decommissioning prior to construction of the wind facility.

I need power at a flip of a switch. Which coal fired electric plants provide.

Mark Naaden

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Mark Naaden

31 PU-16-775 Filed 03/08/2017 Pages: 1
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Mark Naaden

March 9, 2017

Fredrikson
& BYRON, P.A.

VIA E-MAIL AND FEDERAL EXPRESS

Mr. Darrell Nitschke
Executive Secretary
North Dakota Public Service Commission
600 E. Boulevard, Dept. 408
Bismarck, ND 58505-0480

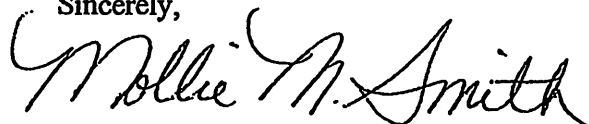
**RE: Public Service Commission
Public Utilities
Rulemaking
Case No. PU-16-775
and
Public Service Commission
Public Utilities – Wind Decommissioning
Rulemaking
Case No. PU-17-23**

Dear Mr. Nitschke:

Enel Green Power North America, Inc. and Tradewind Energy, Inc. respectfully provide the enclosed supplemental comments regarding the rules proposed in the above-referenced rulemaking cases. Electronic copies of this letter and the enclosed comments were filed today via e-mail.

If you have any questions, please let me know.

Sincerely,



MOLLIE M. SMITH

MMS/ms/60932335

Enclosures

cc: John Schuh (via e-mail – w/ encl.)
Jerry Lein (via e-mail – w/ encl.)
Rob Stupar (via e-mail – w/ encl.)
Frank Costanza (via e-mail – w/ encl.)

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PU-17-23 Filed 03/09/2017 Pages: 8
Supplemental comments on proposed rules
Enel Green Power North America, Inc. & Tradewind Energy, Inc.
Mollie Smith, Fredrikson & Byron P.A.

PU-16-775 Filed 03/09/2017 Pages: 8
Supplemental comments on proposed rules
Enel Green Power North America, Inc. & Tradewind Energy, Inc.
Mollie Smith, Fredrikson & Byron P.A.

STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION

**Public Service Commission
Public Utilities
Rulemaking**

Case No. PU-16-775

**Public Service Commission
Public Utilities – Wind Decommissioning
Rulemaking**

Case No. PU-17-23

**SUPPLEMENTAL COMMENTS OF ENEL GREEN POWER NORTH AMERICA, INC.
AND TRADEWIND ENERGY, INC.**

The North Dakota Public Service Commission (“Commission”) has proposed changes to N.D.A.C. § 69-06-08-01 and N.D.A.C. Ch. 69-09-09. On February 21, 2017, Enel Green Power North America, Inc. (“EGPNA”) and Tradewind Energy, Inc. (“Tradewind”) filed proposed revisions and supporting comments regarding the proposed rule changes. Also, at the rulemaking public hearing on February 27, 2017, Mr. Frank Costanza with Tradewind presented testimony regarding the proposed rule changes. EGPNA and Tradewind respectfully provide these supplemental comments to address matters discussed at the public hearing.

EGPNA is a subsidiary of the Enel Group (“Enel”). Enel is a global power business with more than 61 million customers and a net installed capacity of 87.4 gigawatts (“GW”). In the United States, EGPNA is a leading owner and operator of renewable energy plants, with over 100 projects operating and under development in 23 states. EGPNA’s current operating capacity exceeds 2.8 GW. These facilities span the breadth of renewable energy generation, from renewable hydropower, to wind, geothermal, and solar energy. EGPNA is constructing and will operate the 150 megawatt (“MW”) Lindahl Wind Project in Williams County, North Dakota, which will provide electricity to Basin Electric Power Cooperative pursuant to a Power Purchase Agreement.

Tradewind, based in Lenexa, Kansas, is one of the largest independent wind and solar project development companies in the United States. Founded in 2003, the company has grown from its three co-founders to more than 100 employees specializing in a variety of areas, including meteorology, geographic information systems, environmental permitting, real estate, and engineering. Tradewind has 3 GW of contracted and operating projects, totaling more than \$5 billion in project capital investment, and is actively developing over 6 GW of wind assets and 3 GW of solar assets across the country. Tradewind is financially partnered with EGPNA and, in coordination with EGPNA, developed the Lindahl Wind Project.

I. Comments Regarding Proposed N.D.A.C. § 69-06-08-01 (Case No. PU-16-775).

With respect to proposed N.D.A.C. § 69-06-08-01(6)(n), we reiterate our concerns regarding the limited supply of Federal Aviation Administration (“FAA”) approved aircraft detection and lighting systems (“ADLS”). As Mr. David Shepherd of Drake Lighting stated in his testimony during the public rulemaking hearing, ADLS has had FAA-approval for just over a year, and the FAA is only approving installation of the system on a case-by-case basis. As a result, it may be difficult to secure an FAA-approved system – including qualified personnel to install, maintain, and monitor the system – or it may be financially untenable to do so. To address these concerns, we encourage the Commission to incorporate the proposed revisions to N.D.A.C. § 69-06-08-01(6)(n) we previously provided. In addition, we support the request by Mr. Shepherd to modify N.D.A.C. § 69-06-08-01(6)(n) to allow consideration of other lighting technologies, subject to our previously provided comments regarding ADLS.

As a point of clarification, during Mr. Jerry Lein’s testimony, there was a discussion that proposed N.D.A.C. § 69-06-08-01(6)(n) is the same as what has been required by the Commission in recent wind siting orders. However, as we noted in our prior comments, the phrase “to use commercially reasonable efforts” to install ADLS or similar technology had been included in recent Commission wind siting orders (*see* Finding of Fact No. 46 in the June 22, 2016 Findings of Fact, Conclusions of Law and Order (Case No. PU-16-123); Finding of Fact No. 46 in the July 6, 2016 Findings of Fact, Conclusions of Law and Order (Case No. PU-16-42); Order Paragraph No. 13 in the December 7, 2016 Findings of Fact, Conclusions of Law and Order (Case No. PU-16-539)). Thus, including our proposed language would align the rule more closely with prior Commission orders.

II. Comments Regarding Proposed N.D.A.C. Ch. 69-09-09 (Case No. PU-17-23).

We reiterate our previously filed proposed revisions and supporting comments regarding the proposed changes to N.D.A.C. Ch. 69-9-09, and offer the following additional comments in response to comments made during the public hearing.

A. Basing Financial Assurance on a Worst-Case Decommissioning Plan.

In our previously filed comments, and during the public hearing, we noted our concerns with requiring financial assurance during construction based on a decommissioning plan approved concurrently with a siting application. Specifically, since key project details (turbine model, number of turbines, etc.) are typically finalized just prior to construction, it would not be possible to provide an accurate decommissioning cost estimate at the time the siting application is filed, which takes place well in advance of construction. In response to this concern, Commissioner Christmann indicated that a worst-case scenario decommissioning plan could be filed, as is done for sound and shadow flicker analyses in the siting context. However, as discussed below, using a worst-case scenario decommissioning plan would create several issues.

The number of turbines and, in turn, the cost of decommissioning, can vary significantly depending on the MW of the turbine model. Generally, the fewer turbines constructed, the lower the facility’s decommissioning costs. Thus, the decommissioning costs of the facility actually constructed could be significantly less than the worst-case decommissioning cost scenario.

Since, under the current proposal, the decommissioning plan cost estimate would be the basis for setting financial assurance pre-construction, the amount of financial assurance required by the Commission may be significantly higher than the actual amount needed to fully decommission the facility, which is inconsistent with the Commission's decommissioning rules (*see* N.D.C.C. § 69-09-09-08, requiring financial assurance "to cover the anticipated costs of decommissioning.").

Further, once a facility is constructed, the owner will likely want to update its decommissioning plan to reflect the decommissioning costs of the actual facility constructed where it differs from the worst-case decommissioning scenario. Not only is such an update not provided for in the rules as currently proposed, needing to prepare a plan pre-construction and then update the plan for the actual facility constructed would be duplicative – both in cost for the owner and administrative time for the Commission and Staff. Additionally, if the decommissioning costs of the actual facility are less than the worst-case scenario, there is the issue of the Commission needing to return or refund the amount of financial assurance that exceeds the actual estimated decommissioning cost, and the owner needing to secure the revised financial assurance to provide to the Commission.

Our proposal of two separate financial assurance requirements – financial assurance during construction equal to ten percent of the cost of construction, and financial assurance during operation based on the actually-constructed facility's decommissioning cost estimate – avoids these issues. Additionally, our proposal ensures that more than sufficient funds are available to decommission the facility during construction, particularly considering that the cost to decommission a facility where construction starts and is never completed would be far less than the cost to decommission a facility that is completed and operational. In fact, if construction of a facility is close to being completed, it is likely the facility would be acquired by another entity and completed, rather than abandoned.

B. The Role of Project Finance in Incentivizing Wind Facility Operation.

During the public hearing, Mr. Frank Costanza briefly explained how independently-owned wind projects are financed, and how that financing structure makes it very unlikely that a project will be abandoned once operational. To provide further information, attached and incorporated into these comments is a more detailed explanation of the financing structure for independently-owned wind projects.

As explained in the attachment, the Commission's current practice of requiring financial assurance at year ten, which is at least ten years less than the typical power purchase agreement for a wind facility, is more than sufficient assurance that funds will be available to decommission a wind facility at the end of its useful life. That said, we acknowledge the concerns of the Commission and the public regarding decommissioning. Thus, our incremental financial assurance proposal starting at operation is intended to be a compromise that sufficiently and reasonably addresses the risk that the Commission may need to complete decommissioning once a wind energy conversion facility reaches the end of its useful life, without imposing unnecessary costs on wind companies, utilities, and consumers.

Renewable Energy Financing and Cost Recovery Overview

Renewable energy development is both capital intensive and time consuming. Wind power generation projects have timelines and investment cost levels that are very similar to that experienced by investor owned or public power utilities, when they develop new power generation facilities. Like utilities, wind projects can take up to 10 years from start of development to the actual construction and operation of the power plant. However, there are some significant differences between privately developed independent power wind project financing, including subsequent cost recovery vs. that used by regulated investor-owned utilities (referred hereinafter as "regulated utilities").

Project Cost Recovery: Regulated Utilities vs. Independent Wind Projects

Regulated utilities finance generation projects with capital raised in the public sector (e.g., debt and equity offerings). A regulated utility then recovers its costs of financing and operations from rates approved by the state regulatory commission and charged to its retail and wholesale customers (i.e., ratepayers). In the case of both regulated utilities and cooperatives, the vast majority, if not all, of the financing for a generation facility is raised via the public debt markets and no "equity capital" is typically utilized or risked.

Conversely, independently-owned wind projects are privately financed using a technique called "project finance." In this financing model, the developer's (aka "project owner") private equity capital is solely placed at risk during development. Once all development aspects are completed and various approvals are received to allow construction, the project owner will seek financing (not unlike any private industrial venture) usually in the form of debt and/or tax equity. This third-party capital is raised from large institutional players (e.g., JP Morgan, Bank of America, etc.). Tax equity is basically structured (terms and conditions like coverage, reserve accounts, distributions, etc.), and priced from a yield perspective in a manner similar to long-term debt financing. Of course, there are some nuances in the structuring between a debt vs. tax equity financing, but these differences are generally to accommodate Internal Revenue Service and accounting needs. Therefore, in this discussion we will simply refer to this third-party capital as "institutional financing."

Independent Wind Project Cash-flow Structure

Normally, the ratio of capital deployed (i.e., the ratio of project owner equity to institutional capital) for wind project financing is about 50/50, and henceforth is referred to as the "debt/equity ratio." This debt/equity ratio can vary depending upon the condition of financial markets at any point in time, but rarely varies substantially from 50/50. Typical institutional financings for a wind project provide, among other things, for the distribution of revenues received by the wind project. This so-called "cash flow waterfall" is contractually established by the institutional financier to specify the order in which funds received by the project can be utilized. For example, a typical waterfall would identify, in detail, the order in which operating and maintenance costs, debt service, debt service reserves, etc., are paid out from revenues. Without exception, and until the institutional financing is repaid, the project's equity owner is the last to be paid from the available cash.

In a typical wind project financing, the waterfall provides that the institutional financier (tax equity) is allocated all the tax benefits (i.e., depreciation and federal production tax credits) available to the project, as

well as the majority of the free cash flow (cash available after all expenses, taxes, etc., are paid). Essentially, very little of the free cash flow (only about 10 to 20 percent in most typical projects) is distributed to the project owner, but this does vary dependent upon the strength of the PPA revenue stream. This repayment methodology will continue each year until the institutional financier attains its "target return."

Once the institutional financier attains the target return, which is intentionally structured to be attained in about year 10 of the project operations and is timed to be coincident with the expiration of the federal tax credits, then the "Flip" occurs. This "Flip" is at a time when the institutional financier has earned its target return. After the "Flip," the cash flow is essentially all distributed to the project owner. In actuality, for most wind projects, at the end of the 10th year of operation, the project owner will have received cash flow roughly equal to its initial equity investment in the wind project. From year 11 of the project's operation and beyond, the project owner starts to earn a "return on" its equity investment, which is a principal reason why the project owner is highly incentivized to properly operate and maintain the wind project for the life of the PPA, if not longer.

Institutional Financier Requirements for Independent Wind Projects

These highly structured project financings (i.e., the debt and/or tax equity provided by third-party institutional financiers) have strict lending requirements that must be met before the institutional player invests its capital. Third-party institutional investors will only commit their capital to a wind project after certain criteria are met, including but not limited to: (a) the project is suitably structured via underlying economically viable contractual arrangements for (1) interconnection to the grid, (2) viable construction and wind turbine supply, and (3) O&M services, etc.; (b) a viable "investment grade" long-term revenue source (i.e., PPA) with a large investment-grade quality off-taker has been secured to supply revenues sufficient to meet ongoing costs over the project's life; (c) federal, state, and local permits have been secured; and (d) perfected lease agreements have been entered into with all landowners. To be clear, the most critical contract in the project financing approach is the long-term PPA. Without an off-taker to purchase the energy, a project simply would not have the adequate revenue source required by the capital markets to secure financing prior to project operation. Consequently, a project without a PPA is unlikely to be built.

Access to the capital markets to secure long-term project-financed institutional capital is necessary and an important element without which the price of energy from a wind project would be too expensive to attract the utility purchaser to this source of energy supply. Project financing is analogous in some respects to a person securing a mortgage in order to make a home purchase possible and affordable for his/her budget. Like the homeowner who seeks a long-term mortgage to lower the monthly cost of owning a home, the independent power project accesses cheaper institutional capital to lower the delivered price of energy from the project in order to compete in the marketplace of other energy sources and/or providers of wind energy.

Typically, the term of the institutional financing is about 15 years and sometimes as long as 18 years. The term of the institutional financing is driven by the PPA pricing terms and tenor, and in the case of tax equity, by then current depreciation and federal production tax credit policy. In all cases, the institutional financing term (e.g., 15 year term) will not exceed the term of the PPA agreement (e.g., 20 to 25 years). This factor is what drives most wind projects to seek at least a 20 year PPA term.

Before providing capital to a wind project, an institutional lender will perform an exhaustive review of the wind project to ensure the financing criteria noted above have been met. The last step before the institutional capital is transferred to the project is that the project must complete construction and meet stringent start-up testing requirements. As a result, from initiation of development through the end of construction, the private wind developer is financing its project 100 percent with its own equity capital.

Once construction is complete, the private capital from the institutional financier, along with the project equity owner's capital, will be completely at risk throughout the life of the project. Consequently, the oversight imposed by the institutional project financier prior to funding is very comprehensive and stringent to the point that, if a developer did not properly and thoroughly complete all development tasks to the institutional financier's satisfaction, the project will not receive funding. Thus, projects that are unlikely to be able to meet the stringent financing requirements are unlikely to be built. The viability of a wind project is further enhanced by the fact that the institutional financier's due diligence related to the technical, financial, environmental, contractual, and economic aspects of the wind project are performed by a cadre of third-party legal, engineering, and accounting experts. These experts, along with financier's personnel, completely vet all material wind project details over a period of months, as well as provide opinions relative to the viability of a project's revenue and expense forecasts, including both major and minor scheduled maintenance, for the life of the project.

Project Risks: Borne by the Independent Project Owner

To be clear, the wind project's only source of revenue is the PPA it signs with an off-taker, and that off-taker is only obligated to pay for energy when it receives delivery of electric power from the project. Unlike regulated utilities or cooperatives, the privately owned wind project has no "members" or "ratepayers" to rely upon for payments. If a wind project is well conceived, it will generate enough revenue from energy sales to the off-taker to pay for operations (including all periodic maintenance prescribed by the equipment manufacturers), meet debt service requirements, and earn a return on the equity invested in the project by the project owner.

Conceivably, a poorly devised wind project could fail and be abandoned. However, based upon research we have performed, such instances are highly unlikely due to the extensive vetting associated with project development and financing. Further, in the unlikely event a project were to fail, the project equity owner will be at risk to lose its investment, which typically runs into the hundreds of millions of dollars. Consequently, project owners are highly incentivized to correct deficiencies and continue operations. Further, the capital requirements are so large by both the project owner and the institutional financier, and the timeline for repaying the institutional capital so long, the institutional investor is also granted contractual rights under the financing documents to step in and take legal control of a project that is either not performing, or is in default of the financing terms, in order to protect its investment. While it is highly uncommon in the independent power industry for such a default to occur, when they have occurred, the institutional lender has the option to restructure the financing and bring a new equity owner in to replace the original owner so that the project can meet its obligations under the PPA and beyond.

Conclusion

In conclusion, the "pre-lending" due diligence examinations performed by the institutional financier and its third-party experts provide a level of oversight that exceeds the type of oversight possible by most regulatory bodies. Consequently, the project financing process has given leaders in most states the comfort that independent wind projects that are constructed have met all regulatory requirements and have a high likelihood of successfully operating as intended.

For these reasons, we posit that the need for decommissioning security in the very early years of project operation is unnecessary. The equity owner and the third-party institutional financiers have such a significant amount of capital at risk that walking away from a project would be a disastrous financial decision, and would

damage their prospects for future engagement with potential off-takers. It is in the project owner's best interest to meet obligations to its financier and off-take customer. This independent project financing process is a very critical difference between independently-owned wind projects and regulated utility or cooperative assets that must be understood as the state considers appropriate policy changes. This difference is likely why most other states in the Midwest region do not require decommissioning security to be in place before construction is initiated, or even at the start of commercial operations.

March 9, 2017

VIA E-MAIL AND FEDERAL EXPRESS

Mr. Darrell Nitschke
Executive Secretary
North Dakota Public Service Commission
600 E. Boulevard, Dept. 408
Bismarck, ND 58505-0480

**RE: Public Service Commission
Public Utilities – Wind Decommissioning
Rulemaking
Case No. PU-17-23**

Dear Mr. Nitschke:

Red Butte Wind, LLC respectfully provides the enclosed comments regarding the rules proposed in the above-referenced rulemaking case. Electronic copies of this letter and the enclosed comments were filed today via e-mail.

If you have any questions, please let me know.

Sincerely,



MOLLIE M. SMITH

MMS/ms/60933373

Enclosures

cc: John Schuh (via e-mail – w/ encl.)
Jerry Lein (via e-mail – w/ encl.)
Scott Seier (via e-mail – w/ encl.)

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34 PU-17-23 Filed 03/09/2017 Pages: 4
Comments on proposed rules
Red Butte Wind, LLC
Mollie Smith, Fredrikson&Byron, P.A.

34 PU-16-775 Filed 03/09/2017 Pages: 4
Comments on proposed rules
Red Butte Wind, LLC
Mollie Smith, Fredrikson&Byron, P.A.

STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION

Public Service Commission
Public Utilities – Wind Decommissioning
Rulemaking

Case No. PU-17-23

COMMENTS OF RED BUTTE WIND, LLC

The North Dakota Public Service Commission (“Commission”) has proposed changes to N.D.A.C. Ch. 69-09-09. Red Butte Wind, LLC (“Red Butte”) respectfully provides the following comments regarding the proposed rules.

Red Butte, an affiliate of Tenaska, Inc. (“Tenaska”), is developing the Red Butte Wind Project in Oliver County, North Dakota. Founded in 1987, Tenaska is a diversified energy company headquartered in Omaha, Nebraska, and it is one of the largest privately owned companies in North America. Tenaska has developed approximately 10,000 megawatts (“MW”) of natural gas fueled and renewable power generation projects. The company actively manages a development and acquisition pipeline for renewable and thermal generation, with approximately 2,500 MW of projects currently in advanced, pre-financing development. Tenaska currently manages operations for approximately 7,000 MW, consisting of nine power generating facilities in six states. Over its 30 year history, the company has managed operations for power generating facilities totaling 16,500 MW.

A. Comments Regarding Proposed N.D.A.C. § 69-09-09-01.

In the Commission’s proposed rules, financial assurance for decommissioning would be required prior to the commencement of construction, but the term “construction” is not defined. We propose adding the following definition of construction to N.D.A.C. § 69-09-09-01:

“Construction” means any clearing of land, excavation, or other action that would affect the environment of the site of a facility, but does not include activities incident to preliminary engineering or environmental studies.

This definition is based on the relevant portion of the definition of construction in N.D.C.C. § 49-22-03.

B. Comments Regarding Proposed N.D.A.C. § 69-09-09-03(3).

Proposed N.D.A.C. § 69-09-09-03(3) presumes a facility is at the end of its useful life if its annual capacity factor is less than ten percent. We propose retaining the language in the current N.D.A.C. § 69-09-09-03, which presumes a facility is at the end of its useful life if it “generates no electricity for a continuing period of twenty-four months.” Based on comments made during the Commission’s working sessions on the proposed rules, we understand that the

ten percent annual capacity factor is an arbitrary number. Moreover, utilizing a ten percent annual capacity factor does not account for potential catastrophic or force majeure type events, such as a project substation failure, which may result in a facility being non-operational for more than a year. We understand that the presumption may be rebutted with a plan approved by the Commission, but the need for approval creates uncertainty, particularly since the members of the Commission are subject to change. For these reasons, we believe the current end of useful life presumption should be retained. However, if a minimum generation threshold is required, it should include an express exception for not meeting the minimum threshold due to catastrophic or force majeure type events.

C. Comments Regarding Proposed N.D.A.C. §§ 69-09-09-06 and 69-09-09-08.

With respect to N.D.A.C. §§ 69-09-09-06 and 69-09-09-08, we support the proposal of Enel Green Power North America, Inc. ("EGPNA") and Tradewind Energy, Inc. ("Tradewind") that two separate types of financial assurance be provided: (1) financial assurance during construction that is based on a specified amount, and released or returned when construction is completed; and (2) incremental financial assurance starting at the commencement of commercial operations that is based on a Commission-approved decommissioning cost estimate. A separate method for determining financial assurance for the construction phase, as proposed by EGPNA and Tradewind, is important given the difficulty of estimating the cost to decommission a facility before it is built. This approach will simplify the process for the owner and the Commission to determine a reasonable amount of financial assurance to provide during construction.

With respect to the financial assurance during construction, EGPNA and Tradewind have proposed financial assurance based on a percentage of a facility's total estimated construction cost. Another alternative would be for an owner to provide financial assurance during the construction phase based on a fixed amount per wind turbine. We believe \$60,000 per wind turbine will be sufficient to restore a site if construction is never completed. It will also act as a reasonable hedge against firms doing minimal construction work to qualify a project under Federal Production Tax Credit rules only to later abandon the project. Finally, a fixed amount per wind turbine will simplify administration of the construction phase financial assurance requirement for both the owner and the Commission.

With respect to the incremental financial assurance starting at the commencement of commercial operations, EGPNA and Tradewind have proposed requiring financial assurance in increments of twenty-five percent of the total decommissioning cost upon commencing operations, an additional twenty-five percent five years later, and the remaining fifty percent on the tenth anniversary of commencing operations. Another alternative would be for an owner to provide financial assurance equal to ten percent of the total decommissioning cost upon commencing operations, and an additional ten percent each subsequent year until the financial assurance equals the total estimated cost of decommissioning.

Besides the financial assurance revisions noted above, we propose two additional revisions to N.D.A.C. § 69-09-09-08. First, while we understand that proposed N.D.A.C. § 69-09-09-08(3) would not be necessary if a specific incremental financial assurance schedule is adopted, if it is included in the final rule, we request clarification that all forms of financial

assurance referenced in N.D.A.C. § 69-09-09-08(2) may be provided on an incremental basis. Therefore, we propose the following revised language:

The commission may allow the owner to provide financial assurance in the forms set forth in Section 69-09-09-08(2) through an incremental performance bond schedule. To be given consideration, an incremental performance bond schedule must include an initial performance bond increment due upon commencement of construction.

This proposed language would more clearly align N.D.A.C. § 69-09-09-08(2) and N.D.A.C. § 69-09-09-08(3).

Second, in N.D.A.C. § 69-09-09-08(4)(b), we request that the phrase “at least” be omitted, so the rule would read: “The owner or parent guarantor has or is one of the following: . . .” As drafted, the provision implies the Commission could impose more stringent owner or parent guarantor requirements than are set forth in the proposed rule, and we would like more certainty that compliance with the stated requirements is sufficient.



UTILITIES CO.

A Division of MDU Resources Group, Inc.

400 North Fourth Street
Bismarck, ND 58501
(701) 222-7900

March 9, 2017

Executive Secretary
North Dakota Public Service Commission
State Capitol Building
Bismarck, ND 58505-0480

Re: Case No. PU-16-775
Public Service Commission- Public
Utilities - Wind Decommissioning
Rulemaking

Montana-Dakota Utilities Co. (Montana-Dakota), a Division of MDU Resources Group, Inc., herewith submits its comments regarding the North Dakota Public Service Commission's (NDPSC) proposed changes to the Commission's administrative rules pertaining to the siting of energy conversion and transmission facilities, Article 69-06 of the North Dakota Administrative Code (NDAC).

Montana-Dakota supports the proposed addition to NDAC 69-06-08-01.6.n. with a modification to be technology neutral and include commercially reasonable means of addressing lighting pollution. In addition Montana-Dakota supports that this criteria apply on a prospective basis in future siting cases.

Please contact me at 701.222.7856 or tamie.aberle@mdu.com with any questions regarding the comments provided above.

Sincerely,

A handwritten signature in black ink that reads 'Tamie A. Aberle'.

Tamie A. Aberle
Director of Regulatory Affairs

Attachments

cc: Darcy Neigum
Alan Welte



MONTANA-DAKOTA

UTILITIES CO.

A Division of MDU Resources Group, Inc.

400 North Fourth Street
Bismarck, ND 58501
(701) 222-7900

March 9, 2017

Executive Secretary
North Dakota Public Service Commission
State Capitol Building
Bismarck, ND 58505-0480

Re: Case No. PU-17-23
Public Service Commission- Public
Utilities - Wind Facility Decommissioning
Rulemaking

Montana-Dakota Utilities Co. (Montana-Dakota), a Division of MDU Resources Group, Inc., herewith submits its comments regarding the North Dakota Public Service Commission's (NDPSC) proposed changes to the Commission's administrative rules pertaining to wind turbine decommissioning in Chapter 69-09-09 of the North Dakota Administrative Code (NDAC).

Montana-Dakota supports the wind decommissioning rules in general and offers the following comments regarding several of the proposals:

69-09-09-01.6 – The Company requests clarification that the definition of "Existing Facility" as originally proposed to be a facility for which a site compatibility certificate has been issued prior to July 1, 2017. It is important for the Company and its customers that the conditions under which a certificate of site compatibility was issued not be modified prior to completion of construction. Doing so could cause construction delays and increased costs that may have been avoided if known at the time the site compatibility certificate was issued. This would also cause changes to be made to each site compatibility certificate.

69-09-09-05.3 & 69-09-05.5 - The Company appreciates the opportunity to rebut the presumption that a project is to be declared at the end of its useful life if its annual capacity factor is less than ten percent given the many catastrophic events outside the Company's control that could cause a drop in the capacity factor to ten percent such as a tornado, earthquake, major equipment failure, or major fire. However, restoration of the facility may be delayed if Commission approval to restore is required.

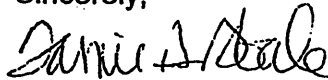
69-09-09-05.4 - Consideration should be given to landowner preference and the specifics of the lease agreement regarding restoration and reclamation of the site to the approximate original topography that existed prior to construction of the facility as proposed.

69-09-09-06.3 - Montana-Dakota utilizes in-house engineers to develop the decommissioning plan. Requiring the use of a North Dakota Professional Engineer would result in additional costs to develop the initial plan as well as provide updates to that plan. A suggested alternative would be to allow experienced engineering estimates with the qualifications of the engineer outlined in the decommissioning filing. The Commission could then decide to accept or reject the engineering estimate provided by the Company.

Montana-Dakota appreciates the opportunity to offer comments regarding the Commission's proposed administrative rule changes.

Please contact me at 701.222.7856 or tamie.aberle@mdu.com with any questions regarding the comments provided above.

Sincerely,



Tamie A. Aberle
Director of Regulatory Affairs

Attachments

cc: Darcy Neigum
Alan Welte

-Info-Public Service Commission

From: Alison Grotberg <agrotberg@gmail.com>
Sent: Thursday, March 09, 2017 3:21 PM
To: -Info-Public Service Commission
Subject: Wind Turbine Decommissioning

CAUTION: This email originated from an outside source. Do not click links or open attachments unless you know they are safe.

To the Members of the PSC:

I would like to go on record saying that I do not believe the depth of 3 feet is adequate for the removal of underground cement under wind turbines. If one were to try to erect a structure, three feet would likely be a shallow depth to run into such a huge mass of cement. Fencing would also be inhibited at this depth. It seems 8 or nine feet would be a more satisfactory depth that would likely keep most endeavors free from the interference of unknown underground cement masses.

For example, say someone bought some farmland and decided to put a dwelling with a basement on a particularly picturesque spot. The land was purchased; the deal was done. Then, upon excavation they ran into an unrealized mass of cement so large that it completely stalled out their dream.

Companies need to be responsible to clear up the debris from any projects that they have completed so the current or future occupants can freely pursue their endeavors. The land is being leased from farmers mostly. The land should be kept at an optimum state of usefulness of its owners after decommissioning. The PSC needs to be a protector of landowner rights and concerns or it ceases to be a service to North Dakota.

Sincerely,

Alison Grotberg

-Info-Public Service Commission

From: Sue Haas Kleinsasser <suz-ponies@live.com>
Sent: Thursday, March 09, 2017 3:37 PM
To: -Info-Public Service Commission
Subject: Fwd: Commission Fedorchak and Commissioner Christmann, RE: proposed Burly Wind-farm project.

CAUTION: This email originated from an outside source. Do not click links or open attachments unless you know they are safe.

Sent from my iPhone

Begin forwarded message:

From: Sue Haas Kleinsasser <suz-ponies@live.com>
Date: March 1, 2017 at 11:42:36 AM CST
To: "ndpsc@nd.gov" <ndpsc@nd.gov>
Subject: Commission Fedorchak and Commissioner Christmann, RE: proposed Burly Wind-farm project.

Dear Members, March 1,2017

I am writing you in regards to the proposed wind farm in Burleigh county and in North Dakota ,in general ,I ask you to strongly consider all sides of this issue .

I am a resident of Telfor township where the Burly wind farm being considered. We have been privelaged to live here for over 16 years and purposely chose to raise our children on a farm. That peaceful life is at risk of being taken away.

I have several reasons to oppose these turbines being possibly placed in "our " back yard' but the main one is for health reasons.

I have had epilepsy for many years. Studies have shown an increase in not only seizures for people living in close proximity to turbines but also for migraine headaches. Having to live with shadow flicker and the constant noise from a turbine would have severe affects on not only my health but other residents. Flashing lights are also a huge trigger for seizures. I know of at least one other resident in our township that deals with seizures.

It is truly unfortunate the problems this proposed project has caused. Neighbors have now become former friends as a result of a few people thinking they will become financially rich over this proposed wind farm when it will cause another life altering ,serious health issues.

Another thing to consider is the impact on the land and wildlife. We live in a flight zone for migrating animals. Every spring and fall we have many many flocks of geese, cranes and other migratory birds in our feilds. This would cause irreversable problems for them.

We also live in an area that is rich with history and recreation. People going to the river or even to Huff hills to relax would be appalled to see turbines along such a beautiful, scenic area of the river.

I feel, personally,this is not good for North Dakota, as a whole for our economy ,but also for the residents peace of mind.

****Thank you for your time,
****Sue Kleinsasser

**Supplemental Comments of Wind on the Wires to North Dakota Public Service
Commission on Proposed Rulemaking on Decommissioning of Wind Facilities (PU-17-23)**

Thank you for the opportunity to provide supplemental comments to the North Dakota Public Service Commission (PSC) regarding its proposal to modify Chapter 69-06-08-01, the energy conversion facility siting criteria, and Chapter 69-09-09, the state's decommissioning standards for wind energy facilities. As you are aware, Wind on the Wires is a regional organization focused on the policy, regulatory, and technical issues affecting the clean energy industry in the Midwest. Our members include private developers of large-scale wind and solar projects, turbine manufacturers, construction companies, and other businesses that supply goods and services to this industry.

During the PSC's public hearing on February 27, several questions were raised concerning wind facility decommissioning laws and processes in other states. Our comments seek to inform the PSC about the practices utilized in several key neighboring states. We underscore the importance of North Dakota maintaining rules and regulations that are comparable and competitive with neighboring states, which we outlined in our initial comments in this docket.

South Dakota

State law requires the applicant for a wind energy site permit in South Dakota to file a plan regarding the action to be taken upon the decommissioning and removal of the wind energy facility. As part of this plan, the SD Public Utilities Commission (PUC) may require a bond, guarantee, insurance, or other requirement to provide funding for the decommissioning and removal of a wind energy facility. The PUC shall consider various factors, including the financial condition of the applicant when determining whether and what amount of funding is required. (See SD Rules Chapter 20:10:22:33.01.) In determining an estimated cost for decommissioning, an applicant may include the salvage value of the turbine. This applies to projects above 100MW that are within the jurisdiction of the SD PUC.

For projects below 100MW, which are permitted locally, the decommissioning requirements can vary by local jurisdiction. However, the SD PUC has provided a model ordinance for consideration, which includes suggestions for decommissioning. The model ordinance recommends local jurisdictions require an applicant to provide a decommissioning plan that ensures the costs to decommission the wind facility are borne by the applicant, among other things. On the key issue of timing, the SD model ordinance recommends that the wind facility owner file a decommissioning plan **prior to the commencement of operation** of the facility, including the estimated decommissioning cost per turbine and information on how the facility owner will ensure resources are available to pay for decommissioning. On financial assurances, the model ordinance recommends that after the tenth year of operation, the local jurisdiction may require a performance bond, surety bond, letter of credit, corporate guarantee, or other form of financial assurance acceptable to the local jurisdiction. This is consistent with the current Deuel County ordinance, where several wind farms are under development, which requires the

decommissioning plan to include “a description of the manner in which the permittee will ensure that it has the financial capability to carry out these restoration requirements when they go into effect.”

Minnesota

State rules require the applicant to include a plan for decommissioning in their site permit application, which must include the anticipated life of the project, the estimated decommissioning costs in current dollars, the method for updating these costs, the method for ensuring funds are available, and the anticipated manner in which the project will be decommissioned (Minn. Rules Chapter 7854.0500 subd. 13). In determining the estimated costs to decommission the facility, the company may include the salvage value of the turbines. In practice, an applicant typically submits their decommissioning plan prior to their pre-operation compliance meeting. While the Minnesota Public Utilities Commission exercises some degree of flexibility in the decommissioning plan, in a recently issued site permit, the Commission required the wind company to provide updates to the decommissioning plan every 2.5 years, which must include information identifying all financial securities established for decommissioning. Historically, the anticipated decommissioning expenses are estimated at the time of permit issuance, but no specific bonding or fund set-aside requirements are imposed.

The Minnesota Department of Commerce has also recently proposed a working group on decommissioning of wind and solar projects. The workgroup will investigate best practices on decommissioning wind and solar facilities to assist the Commission in developing consistent and well-reasoned permit conditions that benefit developers, local governments, and landowners. The MN PUC approved the formation of this work group at their March 2, 2017 open meeting.

Iowa

Wind farms are permitted at the county level in Iowa and local ordinances governing setbacks, noise restrictions, and decommissioning rules can vary by jurisdiction. Therefore, a decommissioning agreement is put in place with the county or counties hosting a wind project. Several counties in Iowa that are home to wind development (i.e. Emmet, Dickinson, Marshall, Story) have ordinances that require a decommissioning plan which outlines the anticipated means and proposed financing methods adequate to remove wind structures upon becoming a discontinued use. The owner is required to remove the wind energy device at the owner's expense within a specified time frame. Despite the Iowa's longstanding reputation as an early-adopter and leader of wind development, we were unable to identify examples in Iowa of a county imposing decommissioning requirements as rigorous and burdensome as several of those proposed by the ND PSC in PU-17-023.

Nebraska

Nebraska has taken a somewhat unique approach to the approval and permitting of wind energy systems, as a result of the state's longstanding reliance on exclusively publicly-owned power companies for electricity. Despite having one of the strongest wind development potentials of any state in the country, Nebraska has historically lagged other states in this area, due to this

approach and the associated regulations that discourage in-state wind energy development. The state's Power Review Board approves wind projects above 70MW, though the wind company must adhere to local zoning regulations, including regulations regarding decommissioning. Current state law directs a local jurisdiction to require this decommissioning plan, which must obligate the wind company to "bear all costs of decommissioning the privately developed renewable energy generation facility", as well as to "post a security bond or other instrument, no later than the tenth year following commercial operation..." (ND Revised Statute Chapter 70 Section 1014.02(1)(a)(iii))

One example of a local wind energy zoning ordinance is Custer County, in central Nebraska, which has approximately 150MW of installed wind capacity. Custer County's wind energy ordinance includes a section on decommissioning, requiring a wind company to provide a decommissioning plan "outlining the anticipated means and cost of removing WECS at the end of their serviceable life or upon being discontinued. The cost estimate shall be made by a competent party...[t]he plan shall also identify the financial resources that will be available to pay for decommissioning and removal of the WECS and accessory facilities."

Nearby Boone County, which has several large operating wind projects, has a similar ordinance to that of Custer County, and requires the owner of the wind facility to place a surety bond or equivalent financial security in an amount estimated in the decommissioning plan after the **fifteenth anniversary of commercial operations**. They also note in their ordinance if the wind facility is repowered, so that decommissioning is not necessary, the security is released.

Conclusion

As you can see, different states take different approaches to decommissioning regulations and this is one of many factors affecting the decision of where to locate a wind project. We analyzed SD, MN, IA, and NE because these are states that are located relatively near North Dakota, are in the Mid-continent Independent System Operator or Southwest Power Pool territory, have already seen a significant amount of wind development, and have comparable wind development potential to that of North Dakota. In effect, these are the states with whom North Dakota is competing against to attract investment in wind energy. As discussed in our initial comments, during our testimony at the February 27 public hearing and above, we believe that the current proposal from the North Dakota PSC contains provisions that are out of step with these key states. Adopting the suggestions of Wind on the Wires, as well as those outlined in the comments of other wind companies, would help ensure North Dakota maintains its reputation as being friendly towards all forms of energy development and continues to receive the widespread economic benefits of wind energy production.

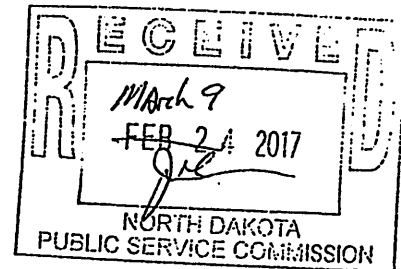
CROWLEY | FLECK
ATTORNEYS

Casey A. Furey
100 West Broadway, Suite 250
P.O. Box 2798
Bismarck, ND 58502-2798
701.223.6585
cfurey@crowleyfleck.com

February 24, 2017

Via Hand Delivery

Mr. Darrell Nitschke
Executive Director
North Dakota Public Service Commission
600 E. Boulevard, Dept. 408
Bismarck, ND 58505-0480



**RE: Public Service Commission
Public Utilities
Rulemaking
Case No. PU-16-775
and
Public Service Commission
Public Utilities - Wind Decommissioning
Rulemaking
Case No. PU-17-023
Our File No. 035218-000023**

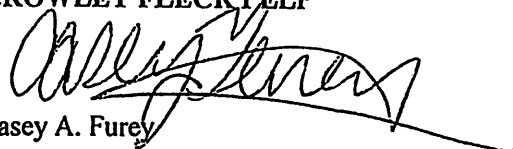
Dear Mr. Nitschke:

NextEra Energy Resources, LLC respectfully submits the enclosed comments for filing in the above referenced matters. Enclose are an original and ten copies.

Please call should you have any questions.

Sincerely,

CROWLEY FLECK PLLP


Casey A. Furey

CAF:rv
Enc.

cc: John Schuh (via email)
Jerry R. Lein (via email)
Sara Cardwell (via email)

BILLINGS BISMARCK BOZEMAN BUTTE CASPER CHEYENNE F

C R O W L E Y F L E C K . C O M

39 PU-17-23 Filed: 3/9/2017 Pages: 6
Revised comments on proposed rules

NextEra Energy Resources, LLC
Casey Furey, Crowley Fleck, PLLP

36 PU-16-775 Filed: 3/9/2017 Pages: 6
Revised comments on proposed rules

NextEra Energy Resources, LLC
Casey Furey, Crowley Fleck, PLLP

-Info-Public Service Commission

From: Rochel Wagner <rwagner@crowleyfleck.com>
Sent: Thursday, March 09, 2017 4:06 PM
To: -Info-Public Service Commission; Schuh, John M.; Lein, Jerry R.; Cardwell, Sara J.
Cc: Brian R. Bjella; Casey A. Furey
Subject: PU-16-775 & PU-17-023
Attachments: Final Comments - PU-16-775 and PU-17-023 - 3-9-2017 (4pm).pdf

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March 9, 2017

I had sent an email earlier this afternoon, please take a moment to replace the attachment "Final Comments – PU16-775 and PU-17-023 -3-9-2017" with the attachment in this email. The original cover letter is the same.

This filing will be delivered today, Public Utilities (PU-16-775 & PU-17-023).

I apologize for any inconvenience, please feel free to contact us should you have any questions.

CROWLEY | FLECK PLLP
ATTORNEYS

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**Comments of NextEra Energy Resources, LLC
North Dakota Public Service Commission
Case Nos. PU-16-775 and PU-17-023**

The following comments are filed in response to questions NextEra Energy Resources, LLC (NextEra) received from the Commission during the February 27, 2017 hearings in the above-referenced matters.

Question 1: How are projects financed and how do financial assurances fit in with project financing?

Answer: Similar to other energy and infrastructure projects, developing and constructing wind facilities requires significant upfront capital in the range of hundreds of millions of dollars. Wind developers and owners typically finance a large portion of development and construction costs. Depending on the company's capital structure and approach, a developer or owner may pursue financing their project either before or after the project is operational.

The percentage of capital costs the financing will cover and how the financing is repaid will depend on the developer, the project, and the lenders or investors. For example, project financings are typically structured so that lenders or investors are repaid from project revenues, including purchase power agreement revenues. Generally, financing terms range from 10 to 20 years. In addition to incentives existing by virtue of owning a wind facility, repayment obligations and rights granted to investors and lenders require wind facility owners to maximize the facility's output.

Financial assurances such as the decommissioning bonds, letters of credit or guaranties impose additional costs on a project, so it is important to narrowly tailor the financial assurance requirements to meet the Commission's public interest goals while minimizing unnecessary costs imposed on wind facilities and, ultimately, North Dakota electric customers.

Question 2: What are the specific concerns with an "A" credit rating requirement? Why is it unworkable?

Answer: While many wind facility developers and owners have investment-grade issuer and issue credit ratings, to our knowledge, the highest rating among large industry participants in North Dakota is an "A". We are not aware of any major market participants with an issuer credit rating of "A". We understand that past Commission practice may have been to consider an "A-" rating the same as an "A" rating, but the two ratings are not equivalent. Further, different rating agencies use different rating scales and terminology. It is very important for the Commission to use precise language and to give meaning to the language used in the rules so that businesses operating in the state can understand and comply with regulatory requirements.

Question 3: Is an investment grade bond a better option, and why? Does it provide protections?

Answer: First, an "A" rating is one of several possible investment-grade ratings (rating scale included below). Entities or debt issuances with investment-grade credit ratings, whether at the top or bottom of the range, are considered low risk. Permitting an entity with an investment-grade issuer or issue credit rating, without specifying a specific rating at the high end of the investment-grade range, is adequate to

satisfy the Commission's concerns without imposing unnecessary costs on wind facility owners. Requiring wind facility owners that have an investment-grade rating other than "A" to use means of financial assurance other than a parent or self-guaranty will increase the cost for those owners without providing a meaningful benefit.

According to Standard & Poor's Corporation, "the term 'investment-grade' historically referred to bonds and other debt securities that bank regulators and market participants viewed as suitable investments for financial institutions. Now the term is broadly used to describe issuers and issues with relatively high levels of creditworthiness and credit quality."¹ Investment-grade credit ratings indicate a low risk of default and an ability to meet debt payment obligations. Standard & Poor's Corporation and Moody's Investors Service definitions of the term investment-grade are wider than just an "A" rating. Both rating agencies consider any rating higher than "BBB-", for Standard & Poor's Corporation, or "Baa3", for Moody's Investors Service, investment-grade. Revising the proposed rule to allow an entity with an investment-grade rating to provide a guaranty supports the Commission's mandate to protect the public interest. In the event a company or its guarantor did not maintain an investment-grade credit rating, or comply with other requirements to provide a parent guaranty or self-guaranty, the wind facility owner would be required to utilize an alternative form of financial assurance specified in the proposed rules.

Second, it is important to note that different types of credit ratings exist. The proposed regulation would require an entity to have "a current rating of 'A' or higher for its most recent bond issuance as issued by Moody's Investors Service, Standard and Poor's Corporation, or an equivalent rating by any other nationally recognized statistical rating organization." Senior unsecured bond issuances are not the only ratings available. Credit rating agencies also provide issuer ratings, which indicate a company's overall credit risk. The proposed regulation should be revised to include issuer ratings, as not all entities issue rated bonds.

¹ Guide to Credit Rating Essentials, accessed March 6, 2017, http://www.spratings.com/documents/20184/760102/SPRS_Understanding-Ratings_GRE.pdf/298e606f-ce5b-4ece-9076-66810cd9b6aa.

	S&P/Fitch	Moody's
Investment Grade	AAA	Aaa
	AA+	Aa1
	AA	Aa2
	AA-	Aa3
	A+	A1
	A	A2
	A-	A3
	BBB+	Baa1
	BBB	Baa2
	BBB-	Baa3
Non-Investment Grade	BB+	Ba1
	BB	Ba2
	BB-	Ba3
	B+	B1
	B	B2
	B-	B3
	CCC and Below	Caa and Below

Question 4: Please comment on the possibility of wind generating facility owners maintaining minimal energy output to avoid decommissioning a wind facility.

Answer: There is no financial benefit to maintain a minimal level of energy output from a wind facility to avoid decommissioning a wind facility. Many operational costs are fixed and will not significantly decrease with changes in generation. If an owner tries to operate at or below 10% to avoid decommissioning, that owner will likely lose money and not receive any benefit from delaying decommissioning. The contractual agreements and economics of wind facilities incentivize owners to maximize generation.

Additional Comments: NextEra respectfully requests the Commission retain the ability to account or credit for bonds that are required at a local level to support decommissioning obligations. NextEra has operating wind facilities in counties that require a decommissioning bond to receive county approval for required permits. Requiring wind developers to secure a bond at both the county and state level doubles the cost of providing financial assurance without providing any public benefit; doubling the financial security requirements is effectively just a tax on wind facilities. We encourage the Commission to allow financial security that is required by a county to back decommissioning costs to count towards the Commission's requirement or be considered in Commission decommissioning bond approval.

Jay Doan
24401 62nd Ave SE
McKenzie, ND 58572
602-510-6094

*I am a 5th generation rancher who came back to ND after working in corporate America for a fortune 500 company in Arizona, California and Texas. The beauty of the state, the open prairies and lifestyle is important to me and my family. Wind production is changing the look of our state. I have seen the 100's of wind towers littered throughout those southern states.

There are several points that I feel are very important when considering wind as energy.

*wind development has been going too fast in the state with little or no restrictions

*some wind farms get started and are then abandoned - there needs to be guidelines that identify when such a wind production has been abandoned.

*when abandoned, it is very important to the landowner that all equipment be removed from the sight. Currently foundations are to be removed to a depth of 3 feet, this is not deep enough for us as landowners wanting to put fences up in these areas as the strength is not enough at this depth. It would be best to require complete removal of all concrete to insure optimum future use of the land such as for fences, putting buildings, etc.

*feel it is very important for wind companies to bond before any construction on each project starts as some may get started and then quit and the landowner is left with the cost of material removal. we need to have a bond in place prior to starting so this cost is covered. Landowners cannot afford to cover these costs, especially young farmers and ranchers like myself.

The state needs to get a handle on wind energy before we are completely overrun by wind towers and the beauty of our airspace is gone and wildlife has vanished. Guests come to our state because of the beauty - tourism and agri tourism is very important to me. some of my guests have told me that they will not return to our state if everywhere they look are blinking red lights at night and big wind towers. This is not how our state is advertised.

February 27, 2017

N.D. Public Service Commission: reference PU-16-775 PU-17-23

Mr. Chairman:

My name is Jerry Doan from McKenzie, N.D. My family has ranched in southern Burleigh county N.D. since before N.D. was a state. My Great Grandfather homesteaded here in 1882 after coming here from Canada.

My family has a lot of pride in Agriculture and we work hard to improve the natural resources including wildlife. We have been fortunate to win the inaugural Aldo Leopold Award in N.D. for conservation, and the National Environmental Stewardship Award for improving our cropland, rangeland, and wildlife resources to better protect our environment.

Besides our long history in agriculture, we also operate Rolling Plains Adventures, a hunting/outfitting business, and operate an agri-tourism business on the ranch. We were awarded the Governor's award for best tourism package in N.D.

Because of these ventures and our working with thousands of people visiting our ranch through many different events, we realize how extremely important our vast open country and natural resources are to our lively hood. We are not opposed to wind electrical generation. However, we are very concerned with the lack of a state plan to site wind farms in the least impacted areas. It is imperative to develop long term plans so we don't ruin our strong economic driver, the tourism industry. It is also imperative to have a plan so we don't cause severe degradation of our wildlife assets. We continue to lose native rangeland at an alarming rate in N.D. and we must be concerned that we don't overly impact grassland wildlife. The hunting industry is also a huge economic driver for N.D. The last point would be to protect our states beauty for the next generation. If we place wind towers that are twice as tall as the N.D. capitol, on our tallest hills we will ruin our landscape. We must develop long term plans to protect our state and site wind farms where they will impact our state the least.

I feel very strong that wind companies need to have the top-rated bonding. A rated bond or higher like other sources of energy. We must insure that wind companies are held accountable for our N.D. interests. This is very important as out of the country wind farms now working in N.D., have stated publicly, they have no intention of operating many of these wind farms. Only breaking ground to collect wind credits and move on. These bonds must be done up front at the onset to protect the landowners.

I also feel very strong about wind companies having a very thorough decommissioning plan. This plan must require them to remove all concrete and other material. If not the land value has diminished. It will be hard if not impossible to build, do fencing or put in a well or water pipelines etc. We have a lot of experience with many wells and miles and miles of pipeline and fencing on our ranch. We know if concrete is left only three feet underground it would make most of these projects impossible. That would mean the land value has been compromised. We must protect the value and property for the next generation. These companies have a history of selling quickly so having assurance that the land and landowner is protected is very critical.

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Jerry Doan

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Jerry Doan

It is also important to have strong language to determine when the wind farm is abandoned. It is far too easy to make it appear the wind farm is in operation and avoid any decommissioning plan. This type of protection is crucial so the wind company is not taking advantage of the land owner.

Lighting of wind towers is a huge problem. The many people from across the world that visit our operation love the beauty of the night sky. Polluting that with wind generation blinking red lights is going to severely degrade tourist economic benefit to our state. The lights that are turned on by radar are a help. However, in certain areas such as the wind farm proposed south of Bismarck, which is in a flight path, they will not be approved by the FFA.

I am also concerned with improving the setbacks for non-participating landowners. If wind towers are next to your land, the realtors I have visited with tell me your land values will fall. They have shown me numbers to back that up on specific cases. Setbacks need to increase to help with that problem. We must use common sense to not let one landowner's property rights to allow wind towers, overshadow another land owner's rites to have his beauty, silence, and wide open space.

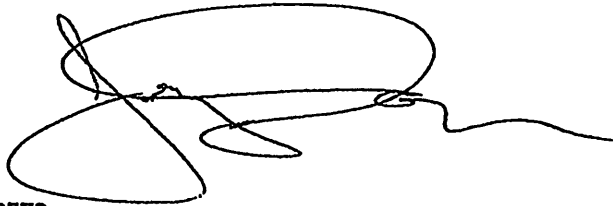
In closing I challenge the N.D. PSC to develop regulation and a long-term vision for N.D. wind energy that protects our beautiful state and our agriculture, tourism, and wildlife, industries. I encourage you to require wind to be developed responsibly with proper land owner protection in the least impacted areas.

Thank You,

Jerry Doan

24401 62 Ave. SE

McKenzie, N.D. 58572

A handwritten signature in black ink, appearing to read "Jerry Doan", is written over the typed name and address. The signature is stylized with large loops and a long horizontal stroke.

Dear North Dakota Public Service Commissioner,

I am 24 years old, and was born and raised in central ND. I just graduated from college and returned home where I am working on my family's ranch raising cattle and growing crops. Returning to ND was always my plan as I absolutely love the solidarity, open spaces, and simple landscape.

I am very concerned with the direction wind energy is heading in ND. It is my understanding that there are over 50 lobbyists working in favor of wind at the capitol building. They are backed by out of state interests, wind companies, and are trying to dictate the legislation and tell us as North Dakotans what we should do with our state. That is not the North Dakota way.

I want to point out that I am not anti-wind. But I would like these towers placed in the least impacted areas possible. We are losing the natural beauty of this state and pretty soon you won't be able to drive down a road without seeing wind towers. This is already apparent on the drive from Dickinson to Bismarck. I have talked with tourists biking along the roadway by Wilton, ND, and they have expressed their discomfort from the noise of the towers many miles away and the flickering light at night. They said they won't be back to ND. Tourism is a big industry in our state, and if we aren't careful we may lose that.

North Dakota is a central pathway for migratory birds. The ND capitol building is around 240 feet tall. Wind towers can exceed 500 feet tall (twice the height of the capitol building). The blades on wind towers slaughter thousands of birds every month, some even are endangered. It is a proven fact that grouse will move their breeding grounds because of the shadow flicker of a wind tower blade. Grouse only nest in rangeland, and the majority of these towers are being placed on rangeland. We will start to lose wildlife in ND.

As I stated earlier I am 24 years old. The projected lifespan for a wind tower is 50 years. That means myself and my generation are the ones that are going to have to put up with these towers, for the rest of our lives. Why ruin a whole generations landscape and sometimes even livelihoods just for the benefit of a few chosen people? That seems very irresponsible to me.

I would like your support on requiring these wind companies to put up bonds before beginning their wind project. Currently, if the project is started and the company goes broke, or they decide they want to go a different direction, there's nothing in place to ensure the progress made on the sites are removed or returned to their natural state. It is up to us, as landowners living within the project, to take care of these problems at our expense. The wind companies need to be held accountable from the very start.

Also, I believe there should be stricter decommissioning guidelines. There is a huge footprint left after a wind tower comes down. If a wind tower has to be taken down for any reason, the giant concrete pad will remain. Currently, the pad only has to be removed to a depth of 3 feet. I can tell you from my own experiences of building over 30 miles of fence, that isn't even deep enough to sink a railroad tie. Wind companies should mirror the old hiking phrase, "you pack it in, you pack it out". There is no reason the company should not take out 100% of the concrete

pad, and any other material they may have on the site. Again, they need to be held accountable for any and all of their actions.

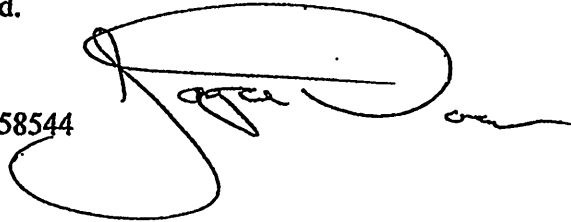
We also need greater setbacks on towers. If you are a non-participating landowner and a wind farm is around you, why should your property rights be infringed upon? A structure as massive as a wind tower will definitely impact property rights, even if the tower is not on your land. Wind towers are relatively new, and there needs to be more studies on the impacts they have on wildlife, tourism, human health (shadow flicker), cattle performance, property value, etc. We need to better understand the long term effect of the wind turbines.

Thank you for your time, and I hope you, as a ND Public Service Commissioner, have our best interests as ND citizens in mind.

Jayce Doan

967 57th St. SE Hazelton, ND 58544

701-220-8443

A handwritten signature in black ink, appearing to read "Jayce Doan", is written over a large, loopy scribble that partially obscures the text below it.

To whom it may concern;

There has been a lot of discussion regarding installation of Wind Towers and how they will effect the land values involved, along with the surrounding land. The information our office has gathered from sources such as land investors, agriculture and development attorneys along with recreational buyers and agriculture producers, shows Wind Towers having a negative impact on the current value. To date we have never had a request from anyone looking to buy land with a Wind Tower. In fact the opposite is more common where buyers don't want to even be in the vicinity of the Towers.

A big attraction to owning land in North Dakota is our tremendous Waterfowl population. The Wind Towers interrupt the Migration Flyway which is a huge impact to buyers for investment and development alike. They deteriorate the landscape beauty and the noise negatively impacts the value of the land as far development including the surrounding acres.

The incentive monies paid for sign up will be deducted from the value and then an additional value reduction to compensate new owners for the inconvenience. We have also been told that the Wind Towers are federally subsidized so there is not a profit to share and that some of the contracts are missing a removal of the Towers once they are obsolete. This information came from an attorney handling the leases in Logan County. So I am sure it will be addressed in the future.

Therefore, it is the opinion of this office that there is sufficient evidence that Wind Towers are not a good way to protect your investment. Thank you.

Naomi Turner
Broker, GRI
Prairie Rose Realty Inc.

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Prairie Rose Realty Inc.
Naomi Turner, Broker, GRI

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Naomi Turner, Broker, GRI

STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION

**Public Service Commission
Public Utilities
Rulemaking**

Case No. PU-16-775

**Public Service Commission
Public Utilities - Wind Decommissioning
Rulemaking**

Case No. PU-17-23

FISCAL NOTE

28 April 2017

Adoption of the proposed rules in the captioned two cases are not expected to have any impact on State expenditures or revenues.

STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION

Public Service Commission
Public Utilities
Rulemaking

Case No. PU-16-775

Public Service Commission
Public Utilities - Wind Decommissioning
Rulemaking

Case No. PU-17-23

ORDER SUBMITTING RULES TO ATTORNEY GENERAL

April 21, 2017

Appearances

Commissioners Randy Christmann and Julie Fedorchak

Preliminary Statement

On January 18, 2017, the North Dakota Public Service Commission (Commission) issued a formal Notice of Intent to Amend Administrative Rules and Notice of Public Hearing and an Abbreviated Notice proposing to revise several sections of the North Dakota Administrative Code.

On January 23, 2017, the Commission issued a corrected formal Notice of Intent to Amend Administrative Rules and Notice of Public Hearing and a corrected Abbreviated Notice to reflect the correct date for receipt of comments.

The proposed rules are summarized as follows:

Public Utilities – Case No. PU-16-775 – Sections 69-06-08-01 and 69-09-02-35:

The Commission is proposing to amend North Dakota Administrative Code section 69-06-08-01 to add the impact on light sensitive land uses to the selection criteria, which must be at an acceptable minimum. The Commission is further proposing to add new policy criteria to allow preference to be given to wind energy projects that commit to installing light mitigation technology subject to commercial availability and Federal Aviation Administration approval.

The Commission is proposing to amend North Dakota Administrative Code section 69-09-02-35 to adopt the 2017 update to the National Electrical Safety Code.

Public Utilities - Wind Decommissioning – Case No. PU-17-23 – Chapter 69-09-09:

The Commission is proposing to amend North Dakota Administrative Code chapter 69-09-09 to strengthen decommissioning requirements and require decommissioning plans to be filed for Commission approval prior to operation. A two-phased approach is being proposed for financial assurance with an initial financial assurance being provided prior to construction and financial assurance sufficient to ensure complete decommissioning to be provided prior to operation.

On January 19, 2017, Staff filed statements regarding the required regulatory analyses, small entity analyses, and takings assessments.

On January 20, 2017, the notices were forwarded to the Legislative Council for publication at least 30 days in advance of the hearing.

On January 23, 2017, corrected notices were forwarded to the Legislative Council for publication at least 30 days in advance of the hearing.

The Abbreviated Notice was published once in 52 official county newspapers the week of January 27 through February 2, 2017.

A public hearing was noticed for and held on February 27, 2017, beginning at 8:30 a.m., CST, in the Commission Hearing Room, 12th floor, State Capitol, Bismarck, North Dakota.

The Commission allowed, after the conclusion of the rulemaking hearing, a comment period until March 9, 2017, during which data, views, or oral arguments concerning the proposed rulemaking could be received by the Commission and made a part of the rulemaking record to be considered by the Commission.

Public Hearing and Comments

Written and oral comments by Jerry Lein of Commission staff were received at the hearing. During the hearing, oral comments were submitted by David Shepard of Drake Lighting, Tom Carlson of EDF Renewable Energy, Jean Schafer of Basin Electric, Frank Costanza of Tradewind Energy, Inc., Chris Kunkle of Wind on the Wires, Julie Voeck of NextEra Energy Resources, Jay Doan, Jerry Doan, Wade Mills, and Andy Buntrock,

Written comments were submitted by: Enel Green Power North America, Inc. & Tradewind Energy, Inc. ("EGPNA"), Wind on the Wires ("WOW"), Basin Electric Power Cooperative ("Basin"), Montana-Dakota Utilities Co., a Division of MDU Resources Group, Inc. ("MDU"), NextEra Energy Resources ("NextEra"), Tradewind Energy, Inc. ("Tradewind" if filed individually), Red Butte Wind, LLC. ("Red Butte"), Capital Power

Corporation ("Capital Power"), and Prairie Rose Realty, Inc. A number of citizens filed comments: Andy Buntrock, Durant Schiermeister, Jim Melchior, The Mills Family (Daymon & Lois Mills, Daymon Jr. & Lori Mills, Wade & Kerri Mills), Tricia Fossum, David and Vicki Carpenter, Mark Naaden, Alison Grotberg, Sue Haas Kleinsasser, Jay Doan, Jerry Doan, Jayce Doan.

All comments were reviewed and considered. Many of the comments received were relevant to wind development but did not address the rulemaking for which the Commission noticed and sought comments. The Commission will take these comments into consideration to advise the need for future rulemaking.

The following discusses the written and oral comments that were received.

Case No. PU-17-23: Wind Decommissioning

The Commission proposed changes to N.D. Admin. Code Ch. 69-09-09. At the hearing Commission staff testified that over the last eight to nine years, North Dakota has seen a substantial number of commercial wind energy conversion facilities begin operation. The proposed rules are intended to strengthen the method of ensuring funds for decommissioning and restoration are available throughout the life of the project, heighten decommissioning requirements for future facilities, and allow the Commission to more effectively monitor the costs for decommissioning and restoration. The industry and concerned citizens expressed a number of concerns in their comments. These comments are addressed by section.

69-09-09-01: Definitions

69-09-09-01(2) "Certificate of Operation"

WOW commented that the Certificate of Operation may aggregate commercially sensitive information that could expose wind companies to a competitive disadvantage. It was suggested that the Commission may require that the report be confidential, thus giving the Commission the information they need while protecting the companies from exposing competitive information. It was further suggested that the company be only required to provide easily attainable information such as nameplate capacity and annual megawatt-hour output, and then provide an explanation why any turbines are not operational.

The revised proposed 69-09-09-01 in conjunction with 69-09-09-03(2) has been adjusted to provide that if no energy is generated by one or more wind turbines for the time period specified in the Certificate of Operation, a written explanation for the non-generating wind turbines must accompany the Certificate of Operation. However, the Certificate of Operation as proposed requires the remainder of information to be filed annually. This information is useful to the Commission for proper monitoring of use and

operation of the facility. If the information provided to the Commission may be protected, the company may request an application for protection of information and cite the law that may allow the Commission to prevent disclosure.

69-09-09-01(5) – “Construction”:

Red Butte requested the addition of a definition of “Construction” to clarify commencement of construction and requested that the definition excludes activities incident to preliminary engineering or environmental studies. This concern was echoed by EGPNA and WOW.

The revised proposed 69-09-09-01(5) has been modified to reflect these concerns, incorporating a “Construction” definition that excludes activities incident to preliminary engineering and environmental studies.

69-09-09-01(6) – “Decommissioning Plan” and Salvage Value:

The added definition for “Decommissioning Plan” requires the inclusion of a decommissioning cost estimate excluding salvage value of the turbines and equipment. EGPNA requested that the cost estimate included in the Decommissioning Plan not provide that the cost estimate be filed “excluding salvage value of the turbines and equipment,” due to the appearance that it creates a limitation for the Commission from considering decommissioning costs. WOW comments support the consideration of salvage value in the decommissioning cost estimate and seek to ensure that the Commission has flexibility to do so if it chooses.

David and Vicki Carpenter commented that reliance on and consideration of salvage value for decommissioning is not a realistic approach.

As written, the proposed rules allow the Commission discretion to consider the appropriate level and type of financial assurance to ensure complete decommissioning as described in N.D. Admin. Code 69-09-09-05. The proposed N.D. Admin. Code § 69-09-09-06(3)(a) provides that an owner may include an estimate in addition to the required cost estimate excluding salvage value. The price of salvage materials is subject to market price and often volatile. The Commission’s low confidence in the predictability of the market and consistency in salvage value over the length of a wind farm’s useful life may result in a reluctance to include a substantial salvage value being reduced from decommissioning costs¹. The result is an absolute requirement to have a cost estimate with salvage value excluded, while allowing the owner the discretion to provide an additional estimate for consideration.

¹ While many states do allow salvage value to be considered, the Commission would not be alone if it chose to not allow consideration of salvage value as part of the cost estimate. See e.g. Wyo. Admin. Code § ENV IS Ch. 1 s 9(e)(ii); Okla. Stat. Ann. tit. 17, § 160.15(B)(1)(a); NH ADC SITE 301.08(a)(8)(a).

69-09-09-01(7) – “Existing facility”

MDU requested that “existing facility” definition be clarified so that the definition of “existing facility” be a facility for which a site compatibility certificate has been issued prior to July 1, 2017. MDU stated that this was to ensure that the conditions under which the certificate of site compatibility was issued not be modified prior to construction.

The proposed 69-09-09-01(7) defines “existing facility” as a facility for which a certificate of site compatibility has been issued prior to July 1, 2017. The decommissioning rules do not govern the certificate of site compatibility. They do reflect the manner in which a wind facility is decommissioned and the land is restored, and how an owner assures the Commission that it will be properly decommissioned.

69-09-09-01(8) – “Owner”

EGPNA requests that the definition of “owner” be changed from a person who “has acquired” to “holds” a certificate of site compatibility for a facility.

To clarify that the definition is broad enough to cover a transfer of site certificate, the Commission has revised the proposed 69-09-09-01(8) to accommodate the request.

69-09-09-03: Abandonment and useful life – Certificate of Operation

69-09-09-03(1) – the Certificate of Operation filing date

EGPNA requested the Certificate of Operation deadline be changed to at least March 31 (the end of the first quarter) to allow more time for submission and filing. The revised proposed 69-09-09-03(1) moves the filing date for a Certificate of Operation to the first of April to accommodate the requested time.

69-09-09-03(3) – the ten percent capacity factor for end of useful life

A number of comments were received regarding the proposal that there be a rebuttable presumption that a facility is at the end of its useful life if its annual capacity factor was less than ten percent.

EGPNA, WOW, MDU, NextEra and Red Butte requested that the rebuttable presumption for the end of useful life remain as “generates no electricity for a continuing period of 24 months.” The companies claim that the ten percent is an arbitrary number and that it does not account for changing market conditions such as regional transmission organization (RTO) operating rule changes, or catastrophic and force majeure events. NextEra questioned the need for the ten percent threshold due to the

owner likely losing money below a ten percent capacity factor level, and not receiving any financial benefit from delaying decommissioning.

The Commission disagrees with the assessment of ten percent being an arbitrary number. However, it is agreeable to extending the minimum annual capacity factor of ten percent to two consecutive years. As Commission Staff's comments reflect, modern North Dakota wind projects operate in the range of a 50 percent capacity factor. Ten percent is a conservative assessment. Furthermore, the events of concern are of the sort that may result in an early end of useful life. As commented by NextEra, a facility operating at less than a ten percent capacity factor level is unprofitable. Having the annual capacity factor threshold at ten percent for two consecutive years will allow the Commission to monitor the financial health of an owner and whether the facility is distressed after an unforeseen event.

Extending the ten percent minimum capacity factor to two consecutive years provides an opportunity to restore the facility to operation even with an extended maintenance issue or after a catastrophic event. If an owner is unable to reach the ten percent capacity factor but has a plan to get the facility back to useful operation, the presumption may be rebutted. The revised proposed 69-09-09-03(3) has been modified to reflect the change.

69-09-09-04 – Decommissioning Period

EGPNA requested that minor revisions be made to "tie the triggers for decommissioning . . . 69-09-09-03, which is in the current rule." Basin requested the time frame for decommissioning be moved from eight months to 12 months to allow for weather delays.

The Commission agrees with the extending of the decommissioning time to 12 months and the proposed rule is revised accordingly. With regards to EGPNA's request to tie the triggers for decommissioning 69-09-09-03, the Commission has given it consideration, but will not be incorporating the request during this rulemaking.

69-09-09-05 Decommissioning requirements

69-09-09-05(2) Removal of Cables

Concerned citizens commented on the depth of the cable removal. Jim Melchior commented that all waste should be removed to a depth of 8 feet. The Mills family disagreed and commented that removal to any depth should not be required and would do more harm to the native grasslands than if just left in the ground.

At this time, the Commission is not proposing a change to 69-09-09-05(2). The Commission will take this into consideration for future rulemaking.

69-09-09-05(3) Removal of foundations

Proposed 69-09-09-05(3) increases the depth of removal of foundations, buildings and ancillary equipment from three feet to four feet for facilities constructed after July 1, 2017. Commission staff commented that the purpose is to provide further protections against possible conflicts with future surface usage.

A number of comments were received by concerned citizens. Jim Melchior's comments related to foundations as well as cables and suggested that all waste be removed to 8 feet. Alison Grotberg commented that removal of concrete to 8 or 9 feet would be adequate for future development. Jayce, Jay, and Jerry Doan and David and Vicki Carpenter support removal of all concrete to accommodate future wells, water lines, fences, and buildings. At the hearing, Jerry and Jay Doan stated that complete removal would be appropriate for proper utilization of the land for the next generation and subsequent owners. Jerry Doan also noted that water lines are often dropped to an eight feet depth.

These concerns have been considered by the Commission and may be revisited in subsequent rulemaking. For the purposes of the current rulemaking, the Commission's proposed 69-09-09-05(3) depth of removal will remain as a step-up to four feet after July 1, 2017.

69-09-09-05(5) Landowner approval to retain surface features

Julie Voeck of NextEra commented at the hearing and MDU provided written comments that landowner preference should be given consideration for specifics of lease agreements regarding restoration and reclamation to original topography and that landowners should have the choice to keep changes to their property.

Proposed 69-09-09-05(5) allows that an owner request signed by the applicable landowner to retain surface features will be considered. The Commission approval requirement will prevent an owner from circumventing decommissioning requirements that have no beneficial use to the landowner.

69-09-09-06 Decommissioning Plan

69-09-09-06(1) and (2) – Decommissioning plan approval

As originally noticed by the Commission, the proposed rules required an owner to have an approved decommissioning plan prior to commencement of construction and allowed the Commission six months to make a determination on the decommissioning

plan. The six month period to make a determination was intended to allow the time frame to run with the siting approval period and incentivize concurrent filings.

EGPNA commented that the decommissioning plan being filed concurrently with the siting approval would lead to an inaccurate cost estimate. Instead, EGPNA suggested a two-phase approach for financial assurances be adopted and allow the decommissioning plan to be filed prior to operation. The suggested two-phase approach would provide an initial construction phase financial assurance of ten percent of the construction costs. Upon completion of construction, the initial financial assurance will be released and replaced upon receipt of a second financial assurance adequate for full decommissioning during the operation phase. This would allow for the Commission to have adequate financial assurances in place prior to having a decommissioning plan and streamline the process to get a wind facility operational.

WOW expressed concerns that the plan's timeline may interfere with wind development. WOW stated that the "PSC should ensure that the decommissioning plan is considered simultaneously with the site compatibility permit, instead of handing two approvals in the series, thus extending the timeline for construction." They also had concerns that even if this is done, the decommissioning plan may not be reasonably accurate at the time and a lengthy lead time may possibly result in unnecessary delay of project construction. WOW also suggested a tightening of the six month timeframe.

The Commission considered the two-phase approach to financial assurances and the timing of the decommissioning plan. The Commission agrees that a two-phase approach will be appropriate to ensuring proper decommissioning. In applying the change to a two phase financial assurance plan, the revised proposed 69-09-09-06(1) requires the decommissioning plan to be approved prior to operation of the facility, and the revised proposed 69-09-09-06(2) shortens the period for the Commission to make a determination to sixty days after the decommissioning plan is deemed complete.

69-09-09-06(3) Decommissioning Cost Estimate

The proposed 69-09-09-06(3) requires cost estimates to be made by a professional engineer. MDU commented that they develop decommissioning cost estimates in-house and that requiring a professional engineer could increase costs. Instead, MDU suggests qualifications of an engineer be provided for the Commission to accept or reject. At the hearing, Frank Costanza of Tradewind supported the licensed professional engineer requirement.

Proposed 69-09-09-06(3) will continue to require a professional engineer licensed by the State of North Dakota. The qualifications of an engineer is better assessed by the State Board of Registration for Professional Engineers and Land Surveyors for the purposes of administration of decommissioning.

69-09-09-08 Financial Assurance

69-09-09-08(1) Financial assurance requirement time

The proposed 69-09-09-08(1) required the owner to have financial assurance sufficient for complete decommissioning prior to the commencement of construction.

EGPNA commented that a requirement of financial assurances after year ten of operations should be sufficient due to minimal risk of failed decommissioning and project financing. However, they recognized the Commission's concerns and commented that the two-phased financial assurance structure with an initial financial assurance of ten percent of construction costs during the construction phase should be sufficient to alleviate the Commission's concerns. Red Butte commented in support of the two-phased approach and believes it will simplify the process for the owner and the Commission. For the construction phase, Red Butte suggested that a \$60,000 per turbine financial assurance will be sufficient as an alternative to the ten percent of construction costs.

WOW commented that requiring financial assurances prior to construction is an unnecessary burden on the companies, but supports an incremental or phased in approach. Capital Power commented in support of WOW and opposes the financial assurance prior to construction as an unnecessary economic burden and runs counter to industry norms.

Jayce, Jay, and Jerry Doan, Andy and KariAnn Buntrock, and Mark Naaden support financial assurances prior to the commencement of construction.

The Commission agrees that the two-phased approach is appropriate for financial assurance and a streamlined process. After reviewing the cost of construction of past projects in North Dakota, the revised proposed 69-09-09-08(1) will require an initial financial assurance equal to five percent of the estimated cost of construction in case of abandonment, prior to commencement of construction. The revised proposed 69-09-09-08(2) requires financial assurance sufficient to ensure complete decommissioning prior to the commencement of operation of a facility.

69-09-09-08(1) Types of financial assurance – local bonding

EGPNA, WOW and NextEra request that local bonding be considered as a financial assurance. The companies state that it would double the cost of providing financial assurance without providing any public benefit.

The Commission believes its rules retain the discretion to take local bonding into consideration. However, to what extent the local bond will be taken into consideration

will depend heavily on the Commission being able to ensure that complete decommissioning will occur.

69-09-09-08(4) Incremental Bond Schedule

EGPNA requested an incremental bond schedule be implemented with a 25% initial bond, 25% addition after five years, and the remaining 50% be provided after ten years. Red Butte also requested 69-09-09-08(2) be changed to allow bonding to be implemented on an incremental basis of ten percent per year. Capital Power agreed that a phased in approach is appropriate. The Mills family commented that financial assurance should be incremental rather than require all financial assurance up front.

Proposed 69-09-09-08(4) provides the Commission discretion to consider financial assurance on an incremental basis.

69-09-09-08(5)(a) Self guarantee "at least"

Red Butte requests the removal of "at least" from 69-09-09-08(5)(b) because it implies that the Commission could impose a more stringent owner or parent guarantor requirement than are set forth in the proposed rule.

The Commission agrees with the removal of "at least" as it adds no meaning to the rule. Revised proposed 69-09-09-08(4) grants that the Commission "may" require more stringent standards, or the discretion to not accept a self-guarantee.

69-09-09-08(5)(b) Credit rating

The noticed proposed rules increased the "BBB-" or higher bond rating to an "A" category or higher. Commission staff commented that the heightened financial assurance requirements mirror those of the Office of Surface Mining and Reclamation Enforcement (OSM) for coal mine reclamation and ensure that only the most sound owners are allowed to self or parent guarantee.

Tricia Fossum and Andy and KariAnn Buntrock commented in favor of sound financial assurances. The Buntrocks commented that owners should be held accountable to the same standards as other industries. At the hearing, Jerry Doan commented that "A" rated bonds are needed for reclamation, similar to other industries.

The Mills family testified that the "A" rating requirement should be changed to investment grade.

NextEra commented that the credit rating should be changed to "investment grade." Investment grade credit ratings are considered low risk. The "A" credit rating is the highest among industry participants and NextEra was not aware of any major

market participants with an issuer credit rating of "A". Without specifying a credit rating at the high end of the investment grade range, investment grade is adequate to accomplish the Commission's goal without imposing unnecessary costs on wind facility owners. WOW and Capital Power both requested that the minimum bond rating remains at "BBB-" or have the language changed to investment grade. Capital Power commented that "investment grade" is consistent with most electric power markets, including MISO.

Basin suggested minor revisions for clarification that the "A" rating was meant to encompass the whole "A" category, as well as clarification that the Commission would accept the higher of multiple rating organizations if there is a split. NextEra also commented that different types of credit ratings exist and that credit ratings also provide issuer ratings, which indicate an overall credit risk. NextEra requested that the language be revised to include issuer ratings.

The Commission has considered the comments regarding credit and bond ratings and has chosen to retain the "A" grade rating while incorporating the minor revisions suggested by Basin and NextEra's issuer rating addition revision. The Commission has maintained a successful mining and reclamation program, which requires an "A" bond rating for self-bonding. Pursuant to this success, the Commission has chosen to follow OSM's proposal with regards to wind farm decommissioning². OSM's standards were based upon a finding that the top three ratings of Standard and Poor's and Moody's Investor Service would better assure that the company applying for self-bonding would be able to survive in depressed economic conditions. "A" review of Corporate Credit Ratings, demonstrate a low default for investment grade, however, even "AA" or "A" ratings "should not be seen as a guarantee of capital markets access."³

To ensure that only the most sound owners are allowed to self or parent guarantee, the revised proposed 69-09-09-08(5) retains the "A" rating standard while incorporating the minor revisions to allow for issuer credit ratings and accommodate Basin's requested clarifications.

PU-16-775 Siting Criteria

69-06-08-01(5)(c)

Staff commented that the proposed changes are to update and codify the Commission's existing energy conversion facility criteria to add the impact on light-sensitive land uses to the selection criteria, which must be at an acceptable minimum.

² What Additional Requirements Apply to Self-Bonds, 30 C.F.R. § 800.23. *See also* PSC Docket No. 48.

³ Corporate Credit Ratings – A Quick Guide. PSC Docket No. 47.

WOW suggests that the proposal is unnecessary, but if kept, additional clarification from the Commission would be preferred.

Proposed 69-06-08-01(5) retains the addition of "light-sensitive land uses." N.D.C.C. § 49-22-05.1 states that the Commission shall develop criteria to guide the suitability evaluation and designation process. The addition of the criteria puts an applicant on notice that the effects of light will be evaluated for the purposes of their application and hearing.

69-06-08-01(6)(n)

The proposed 69-06-08-01(6)(n) added a new policy criteria to allow preference to be given to wind energy projects that commit to installing aircraft detection lighting systems subject to Federal Aviation Administration (FAA) approval. Commission staff commented that the aircraft detection and lighting systems are a new technology coming available that uses radar to detect when an aircraft is in the vicinity so the flashing lights can be turned on only when needed. The Commission is already giving consideration to the use of aircraft detection and lighting systems. The rule changes would codify the existing practice.

WOW requested that the Commission allow other technologies designed to mitigate lighting impacts to be considered, such as light intensity dimming solutions (LIDS) to allow for flexibility. Drake Lighting, EGPNA, and MDU agreed that the requirements should be technology neutral.

EGPNA requested the addition of "to use commercially reasonable efforts" and "subject to FAA-approved system" instead of a hard requirement to implement the technology. EGPNA's concern is due to the limited commercial availability of the systems if they become widespread and or unable to secure a FAA approval, or that it may be financially untenable to do so. MDU commented that it should only apply to prospective cases going forward.

There was an overwhelming support from concerned citizens in favor of lighting system rules. Tricia Fossum, David and Vicki Carpenter, Mark Naaden, Jim Melchior, Durant Schiermeister, Sue Hass Kleinsasser, Andy Buntrock, and the Mills Family all commented in support of the changes. In general, the citizens indicated the light pollution from the wind turbines were littering the night sky and that less intrusive technology should be implemented. The Mills Family stated that LIDS should be preferred over radar due to the expense on existing wind farms.

In consideration of the concerns of the industry, revised proposed 69-06-08-01(6)(n) has been modified to be technology neutral and subject to commercial availability in addition to the FAA approval.

69-09-02-35 – Installation and maintenance

Proposed 69-09-02-35 updates the rules and regulations for the installation and maintenance of electric supply and communication lines. The purpose of the adopting the 2017 Edition is to ensure that North Dakota safety requirements keep pace with industry standards. Aside from Staff testimony, no comments were received.

Proposed 69-09-02-35 updates the National Electrical Safety Code from 2012 to 2017.

Discussion

The Commission agrees with adopting the rules as revised.

Having reviewed the proposed revised rules and the testimony and comments received, the Commission finds good cause for submitting the revised proposed rules, attached to and made a part of this order, to the Attorney General for an opinion as to legality.

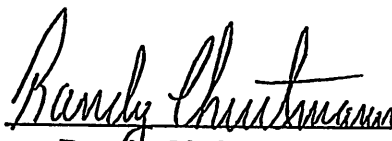
Order

The Commission orders the revised proposed changes to the North Dakota Administrative Code, as attached to and made a part of this order, be submitted to the Attorney General for an opinion that the rules are approved as to their legality.

PUBLIC SERVICE COMMISSION



Brian Kroshus
Commissioner



Randy Christmann
Chairman



Julie Fedorchak
Commissioner

NORTH DAKOTA
PUBLIC SERVICE COMMISSION

Public Service Commission
Public Utilities
Rulemaking

Case No. PU-16-775

CHAPTER 69-06-08

CRITERIA

Section

- 69-6-8-1 **Energy Conversion Facility Siting Criteria**
- 69-6-8-2 **Transmission Facility Corridor and Route Criteria**

69-06-08-01. Energy conversion facility siting criteria.

The following criteria must guide and govern the preparation of the inventory of exclusion and avoidance areas, and the site suitability evaluation process.

1. **Exclusion areas.** The following geographical areas must be excluded in the consideration of a site for an energy conversion facility.
 - a. Designated or registered national: parks; memorial parks; historic sites and landmarks; natural landmarks; historic districts; monuments; wilderness areas; wildlife areas; wild, scenic, or recreational rivers; wildlife refuges; and grasslands.
 - b. Designated or registered state: parks; forests; forest management lands; historic sites; monuments; historical markers; archaeological sites; grasslands; wild, scenic, or recreational rivers; game refuges; game management areas; management areas; and nature preserves.

- c. County parks and recreational areas; municipal parks; parks owned or administered by other governmental subdivisions; hardwood draws; and enrolled woodlands.
- d. Prime farmland and unique farmland, as defined by the land inventory and monitoring division of the soil conservation service, United States department of agriculture, in 7 C.F.R. part 657; provided, however, that 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 be of negligible impact on agricultural productions, this exclusion does not apply.
- e. Irrigated land.
- f. Areas critical to the life stages of threatened or endangered animal or plant species.
- g. Areas where animal or plant species that are unique or rare to this state would be irreversibly damaged.
- h. Areas within one thousand two hundred feet of the geographic center of an intercontinental ballistic missile (ICBM) launch or launch control facility.

2. **Additional exclusion areas for wind energy conversion facilities.** The following geographical areas must be excluded in the consideration of a site for a wind energy conversion facility:

- a. Areas less than:
 - (1) One and one-tenth times the height of the turbine from

- interstate or state roadway right of way;
- (2) One and one-tenth times the height of the turbine plus seventy-five feet from the centerline of any county or maintained township roadway;
 - (3) One and one-tenth times the height of the turbine from any railroad right of way;
 - (4) One and one-tenth times the height of the turbine from a one hundred fifteen kilovolt or higher transmission line; and
 - (5) One and one-tenth times the height of the turbine from the property line of a nonparticipating landowner, unless a variance is granted. A variance may be granted if an authorized representative or agent of the permittee and affected parties with associated wind rights file a written agreement expressing all parties' support for a variance to reduce the setback requirement in this subsection. A nonparticipating landowner is a landowner that has not signed a wind option or an easement agreement with the permittee of the wind energy conversion facility as defined in

North Dakota Century Code chapter 17-04.

- 3. **Avoidance areas.** The following geographical areas 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 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. Economic considerations alone will not justify approval of these areas. A buffer zone of a reasonable width to protect the integrity of the area must be included. Natural screening may be considered in determining the width of the buffer zone.

- a. Historical resources which are not designated as exclusion areas.
- b. Areas within the city limits of a city or the boundaries of a military installation.
- c. Areas within known floodplains as defined by the geographical boundaries of the hundred-year flood.
- d. Areas that are geologically unstable.
- e. Woodlands and wetlands.
- f. Areas of recreational significance which are not designated as exclusion areas.

4. **Additional avoidance areas for wind energy conversion facilities.** A wind energy conversion facility site must not include a geographic area where, due to operation of the facility, the sound levels within one hundred feet of an inhabited residence or a community building will exceed fifty dBA. The sound level avoidance area criteria may be waived in writing by the owner of the occupied residence or the community building.

5. **Selection criteria.** A site may be approved in an area only when it is demonstrated to the commission by the applicant that any significant adverse effects resulting from the location, construction, and operation of the facility in that area as they relate to the following, will be at an acceptable minimum, or that those effects will be managed and maintained at an acceptable minimum. The effects to be considered include:

a. The impact upon agriculture:

- (1) Agricultural production.
- (2) Family farms and ranches.
- (3) Land which the owner demonstrates has soil, topography, drainage, and an available water supply that cause the land to be economically suitable for irrigation.
- (4) Surface drainage patterns and ground water flow patterns.
- (5) The agricultural quality of the cropland.

b. The impact upon the availability and adequacy of:

- (1) Law enforcement.
- (2) School systems and education programs.
- (3) Governmental services and facilities.
- (4) General and mental health care facilities.
- (5) Recreational programs and facilities.
- (6) Transportation facilities and networks.
- (7) Retail service facilities.

(8) Utility services.

c. The impact upon:

(1) Local institutions.

(2) Noise-sensitive land uses.

(3) Light-sensitive land uses.

(~~3~~4) Rural residences and businesses.

(~~4~~5) Aquifers.

(~~5~~6) Human health and safety.

(~~6~~7) Animal health and safety.

(~~7~~8) Plant life.

(~~8~~9) Temporary and permanent housing.

(~~9~~10) Temporary and permanent skilled and unskilled labor.

d. The cumulative effects of the location of the facility in relation to existing and planned facilities and other industrial development.

6. **Policy criteria.** The commission may give preference to an applicant that will maximize benefits that result from the adoption of the following policies and practices, and in a proper case may require the adoption of such policies and practices. The commission may also give preference to

an applicant that will maximize interstate benefits. The benefits to be considered include:

a. Recycling of the conversion byproducts and effluents.

b. Energy conservation through location, process, and design.

c. Training and utilization of available labor in this state for the general

and specialized skills required.

- d. Use of a primary energy source or raw material located within the state.
- e. Not relocating residents.
- f. The dedication of an area adjacent to the facility to land uses such as recreation, agriculture, or wildlife management.
- g. Economies of construction and operation.
- h. Secondary uses of appropriate associated facilities for recreation and the enhancement of wildlife.
- i. Use of citizen coordinating committees.
- j. A commitment of a portion of the energy produced for use in this state.
- k. Labor relations.
- l. The coordination of facilities.
- m. Monitoring of impacts.
- n. A commitment to install lighting mitigation technology for wind energy conversion facilities subject to commercial availability and Federal Aviation Administration approval.

History: Amended effective August 1, 1979; July 1, 2006; April 1, 2013; _____.

General Authority: NDCC 49-22-18

Law Implemented: NDCC 49-22-05.1

69-09-02-35. Installation and maintenance - Conformance to National Electrical Safety Code.

The installation and maintenance of electric supply and communication lines shall conform to rules and regulations established in the ~~2012~~ 2017 edition of the National

Electrical Safety Code which is adopted by reference. Copies of these regulations may be obtained from the public service commission, state capitol, Bismarck, North Dakota 58505-0480.

History: Amended effective September 1, 1984; January 1, 1988; December 1, 1990; August 1, 1993; July 1, 1997; March 1, 2003; July 1, 2008; April 1, 2013; _____.

General Authority: NDCC 49-02-04

Law Implemented: NDCC 49-02-04, 49-20-02

NORTH DAKOTA

PUBLIC SERVICE COMMISSION

Public Service Commission
Public Utilities - Wind Decommissioning
Rulemaking

Case No. PU-17-23

CHAPTER 69-09-09

WIND TURBINE FACILITY DECOMMISSIONING

Section

- 69-09-09-01 Definitions
- 69-09-09-02 Decommissioning Responsibility
- 69-09-09-03 Abandonment and Useful Life - Certificate of Operation
- 69-09-09-04 Decommissioning Period
- 69-09-09-05 Decommissioning Requirements
- 69-09-09-06 Decommissioning Plan
- 69-09-09-07 Existing Facilities
- 69-09-09-08 Financial Assurance
- 69-09-09-09 Failure to Decommission

69-09-09-01. Definitions.

1. ~~"Commercial wind energy conversion facility" means a wind energy conversion facility of equal to or greater than five hundred kilowatts in total nameplate generating capacity.~~ "Capacity Factor" means the ratio of the actual output generated by a facility for a period of time, to the output that could be produced at the nameplate generating capacity of that facility.

2. "Commission" means the public service commission. "Certificate of Operation" means an affidavit executed by the Owner certifying to the commission a facility's:
 - a. Nameplate generating capacity;
 - b. Annual capacity factor;
 - c. Annual MWh output; and
 - d. Monthly MWh output.
3. ~~"Wind turbine" means a wind turbine of equal to or greater than five hundred kilowatts in total nameplate generating capacity.~~ "Commercial wind energy conversion facility" means a wind energy conversion facility with one or more wind turbines that has a total nameplate generating capacity equal to or greater than five hundred kilowatts.
4. "Commission" means the public service commission.
5. "Construction" means any clearing of land, excavation, or other action that would affect the environment of the site of a facility, but does not include activities incident to preliminary engineering or environmental studies.

6. "Decommissioning Plan" means a plan filed with the commission that includes:
 - a. The anticipated life of the facility;
 - b. A decommissioning cost estimate excluding salvage value of the turbines and equipment;

- c. A description of the method used for determining the decommissioning cost estimate;
 - d. The anticipated manner in which the project will be decommissioned;
 - e. A description of any expected effects on present and future natural resource development; and
 - f. A detailed plan of financial assurance sufficient to ensure decommissioning.
7. "Existing facility" means a facility for which a certificate of site compatibility has been issued prior to July 1, 2017.
8. "Facility" means a commercial wind energy conversion facility including wind turbines, turbine towers, tower bases, blades, pad transformers, collector lines, substations, facility access roads, meteorology towers, and all areas disturbed by the construction, operation, maintenance or decommissioning activities.
9. "Owner" means a person who holds a certificate of site compatibility pursuant to North Dakota Century Code chapter 49-22.

History: Effective October 1, 2008;
General Authority: NDCC 28-32-02, 49-02-27
Law Implemented: NDCC 49-02-27

69-09-09-02. Decommissioning responsibility.

The owner or operator of a commercial wind energy conversion facility is responsible for decommissioning ~~that~~the facility and for all costs associated with

decommissioning that facility and associated facilities.

History: Effective October 1, 2008;

General Authority: NDCC 28-32-02, 49-02-27

Law Implemented: NDCC 49-02-27

69-09-09-03. Useful Abandonment and useful life - certificate of operation.

~~A commercial wind energy conversion facility or individual wind turbine is presumed to be at the end of its useful life if the facility or turbine generates no electricity for a continuing period of twenty four months. The presumption may be rebutted by submitting to the commission for approval a plan outlining the steps and schedule for returning the commercial wind energy conversion facility or wind turbine to service.~~

1. After construction of a facility is complete, the owner shall annually file a certificate of operation with the commission for that facility by the first of April of each year.
2. If no energy is generated by one of more wind turbines for the time period specified in the certificate of operation, a written explanation for the non-generating wind turbines must accompany the certificate of operation.
3. A facility is presumed to be at the end of its useful life if its annual capacity factor is less than ten percent for two consecutive years.
4. A facility is presumed to be abandoned if, after commencement of construction and prior to completion, a period of twenty-four consecutive months has passed with no significant construction.
5. A presumption under this section may be rebutted by filing a plan for

commission approval outlining the steps and schedule for continuing construction or operation of the facility or wind turbine.

History: Effective October 1, 2008; _____
General Authority: NDCC 28-32-02, 49-02-27
Law Implemented: NDCC 49-02-27

69-09-09-04. Decommissioning period.

The ~~facility~~ owner or operator shall begin decommissioning a ~~commercial wind energy conversion facility or wind turbine~~ within ~~eight~~twelve months after the ~~time the facility abandonment or turbine reaches the end of its useful life, as determined in section 69-09-09-03.~~ Decommissioning must be completed within ~~eighteen~~twenty-four months after the ~~facility abandonment or turbine reaches the end of its useful life~~ unless the commission approves a plan specifying the steps and schedules to return the facility to operation.

History: Effective October 1, 2008; _____
General Authority: NDCC 28-32-02, 49-02-27
Law Implemented: NDCC 49-02-27

69-09-09-05. Decommissioning requirements.

Decommissioning and ~~site restoration~~ includes:

1. ~~dismantling~~Dismantling and removal of all towers, turbine generators, transformers, and overhead cables;
2. ~~removal~~Removal of underground cables to a depth of twenty-four [60.96 centimeters] inches;
3. ~~removal~~Removal of foundations, buildings, and ancillary equipment to a depth of:

a. three~~Three~~ feet [91.44 centimeters] for facilities constructed before July 1, 2017; and

b. ~~removal of surface road material and restoration of the roads and turbine sites to substantially the same physical condition that existed immediately before construction of the commercial wind energy conversion facility or wind turbine. The site must be restored and reclaimed to the same general topography that existed just prior to the beginning of the construction of the commercial wind energy conversion facility or wind turbine and with topsoil respread over the disturbed areas at a depth similar to that in existence prior to the disturbance. Areas disturbed by the construction of the facility and decommissioning activities must be graded, topsoiled, and reseeded according to natural resource conservation service technical guide recommendations and other agency recommendations, unless the landowner requests in writing that the access roads or other land surface areas be retained.~~Four feet [121.92 centimeters] for facilities constructed on or after July 1, 2017;

4. Site restoration and reclamation to the approximate original topography that existed prior to construction of the facility with topsoil respread over the disturbed areas at a depth similar to that in existence prior to the disturbance; and

5. Grading and topsoil of areas disturbed by the facility, and reseeding according to natural resource conservation service recommendations, unless the commission approves an owner request signed by the applicable landowner, identifying the surface features the landowner prefers to remain in place, and the reason the landowner prefers those features to remain.

History: Effective October 1, 2008;
General Authority: NDCC 28-32-02, 49-02-27
Law Implemented: NDCC 49-02-27

69-09-09-06. Decommissioning plan.

~~Prior to commencement of operation of a commercial wind energy conversion facility or wind turbine, the facility or turbine owner or operator shall file for commission review the estimated decommissioning cost per turbine, in current dollars at the time of filing, for the proposed facility or turbine and a comprehensive decommissioning plan that describes any expected effect on present and future natural resource development and how the facility or turbine owner or operator plans to pay for decommissioning the facility or turbine as required by section 69-09-10-05 at the appropriate time. The commission may at any time require the owner or operator of a commercial wind energy conversion facility or wind turbine to file a report with the commission describing how the facility or turbine owner or operator is fulfilling this obligation.~~

1. Prior to the commencement of operation of a facility, the owner must have an approved decommissioning plan.

2. The Commission shall make a determination on the decommissioning plan no later than sixty days after decommissioning plan is deemed complete by the commission.

3. A decommissioning cost estimate for a facility:
 - a. Must be made by a professional engineer licensed by the State of North Dakota and at the owner's expense;

 - b. May include a decommissioning cost estimate including salvage value in addition to the decommissioning cost estimate excluding salvage value;

 - c. Must be updated and filed with the commission ten years after initial approval of the decommissioning plan and then continue to be updated and filed with the commission every five years until decommissioning is complete.

4. The commission may at any time require the owner to file an updated decommissioning plan.

History: Effective October 1, 2008; amended effective October 1, 2010; amended effective

General Authority: NDCC 28-32-02, 49-02-27

Law Implemented: NDCC 49-02-27

69-09-09-07. Existing facilities.

~~Owners and operators of existing commercial wind energy conversion facilities shall file with the commission the information required in section 69-09-09-06 within one year after July 1, 2008.~~ The owner of an existing facility shall provide financial assurance

after the tenth year of operation sufficient to complete decommissioning.

History: Effective October 1, 2008;
General Authority: NDCC 28-32-02, 49-02-27
Law Implemented: NDCC 49-02-27

69-09-09-08. Financial assurance.

~~After the tenth year of operation of a commercial wind energy conversion facility or wind turbine, the commission by order may require the owner or operator to secure a performance bond, surety bond, letter of credit, corporate guarantee, or other form of financial assurance that is acceptable to the commission to cover the anticipated costs of decommissioning the commercial wind energy conversion facility or turbine. The commission may accept a corporate guarantee if the corporation has a tangible net worth of at least ten million dollars, a ratio of total liabilities to net worth of 2.5 or less, and a ratio of current assets to current liabilities of 1.2 or greater; or if it has an investment grade current rating for its most recent bond issuance of "Baa" or higher as issued by Moody's Investors Service "BBB" or higher as issued by Standard and Poor's Corporation, or an equivalent rating by any other nationally recognized statistical rating organization, as defined and approved by the United States securities and exchange commission.~~

1. Prior to commencement of construction of a facility, the owner shall provide financial assurance equal to five percent of the estimated cost of construction of the facility that may be used to decommission the facility in the event it is abandoned prior to operation. Within sixty days of receipt of written notice from the owner that the facility is commercially operational, the commission shall return or release said financial assurance provided to

the commission.

2. Prior to commencement of operation of a facility, the owner shall provide financial assurance that is acceptable to the commission and sufficient to ensure complete decommissioning.
3. Financial assurance may be in the form of a performance bond either as, or combination of, a surety bond, irrevocable letter of credit, self-guarantee, parent guarantee, or another form of financial assurance that is acceptable to the commission to cover the anticipated costs of decommissioning.
4. The commission may allow the owner to provide financial assurance through an incremental bond schedule. To be given consideration, an incremental bond schedule must include an initial bond increment prior to commencement of operation.
5. The commission may accept a self-guarantee or parent guarantee if:
 - a. The owner has been in continuous operation as a business entity for five years preceding the application. The commission may accept a self-guarantee with less than five years of continuous operation if guaranteed with a parent guarantee and the parent company has been in operation for at least five years preceding the application; and
 - b. The owner or parent guarantor has or is one of the following:

(1) A current rating in the "A" category or higher for its most recent bond issuance or issuer rating as issued by Moody's Investors Service, Standard and Poor's Corporation, or an equivalent rating by any other nationally recognized statistical rating organization, as defined and approved by the United States securities and exchange commission, that is acceptable to the commission. If an organization has different ratings among various rating organizations, the commission shall accept the higher of the ratings;

(2) A tangible net worth of at least ten million dollars, a ratio of total liabilities to net worth of 2.5 or less, and a ratio of current assets to current liability of 1.2 or greater; or

(3) An electric public utility as defined by N.D.C.C. § 49-03-01.5(2).

6. The total amount of an outstanding self-guarantee for decommissioning may not exceed twenty-five percent of the owner's tangible net worth in the United States.

7. The combined total amount of an outstanding self-guarantee and parent guarantee for decommissioning may not exceed twenty-five percent of the owner's and parent guarantor's combined tangible net worth in the United States.

8. If any financial assurance is modified, cancelled, suspended or revoked, the Owner shall immediately notify the commission and provide financial assurance as soon as practicable sufficient to ensure complete decommissioning.
9. The commission may require additional financial assurance upon a finding that the current financial assurance for a facility is not sufficient to ensure complete decommissioning.

History: Effective October 1, 2008;
General Authority: NDCC 28-32-02, 49-02-27
Law Implemented: NDCC 49-02-27

69-09-09-09. Failure to decommission.

If the ~~commercial wind energy conversion facility~~ owner or operator does not complete decommissioning, the commission may take such action as ~~may be~~ necessary to complete decommissioning, including ~~requiring~~ action to require forfeiture of the ~~a~~ bond. The entry into a participating landowner agreement shall constitute agreement and consent of the parties to the agreement, their respective heirs, successors, and assigns, that the commission may take such action as may be necessary to decommission a ~~commercial wind energy conversion facility or wind turbine,~~ including the exercise by the commission, commission staff, and their contractors of the right of ingress and egress for the purpose of decommissioning the ~~commercial wind energy conversion facility.~~

History: Effective October 1, 2008;
General Authority: NDCC 28-32-02, 49-02-27
Law Implemented: NDCC 49-02-27



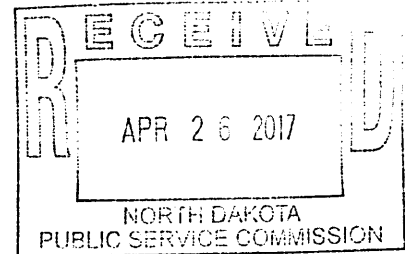
Wayne Stenehjem
ATTORNEY GENERAL

STATE OF NORTH DAKOTA
OFFICE OF ATTORNEY GENERAL

STATE CAPITOL
600 E BOULEVARD AVE DEPT 125
BISMARCK, ND 58505-0040
(701) 328-2210
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OPINION

April 26, 2017



Mr. John Schuh
Public Service Commission
600 E. Boulevard Ave Dept 408
Bismarck, ND 58505

Dear Mr. Schuh:

The Office of Attorney General has examined the proposed amendments to N.D.A.C. §§ 69-06-08-01 and 69-09-02-35 (Case No. PU-16-775) concerning energy conversion facility siting criteria and the National Electrical Safety Code, and the proposed amendments to N.D.A.C. ch. 69-09-09 (Case No. PU-17-23) concerning wind facility decommissioning, along with the notice of the proposed rules, the publication of that notice, and the filing of that notice with the Legislative Council. This office has also determined that 1) a written record of the agency's consideration of any comments to the proposed rules was made, 2) a regulatory analysis was issued, 3) a takings assessment was prepared, 4) a small entity regulatory analysis and an economic impact statement were prepared, 5) the proposed rules are within the agency's statutory authority.

These administrative rules are in substantial compliance with N.D.C.C. ch. 28-32 and are hereby approved as to their legality. Upon final adoption, these rules may be filed with the Legislative Council.

Sincerely,

Troy Seibel
Chief Deputy Attorney General

eee

cc: Vonette Richter, Legislative Council

53 PU-17-23 Filed: 4/26/2017 Pages: 1
Letter approving administrative rules

48 PU-16-775 Filed: 4/26/2017 Pages: 1
Letter approving administrative rules

North Dakota Attorney General

Troy Seibel, Chief Deputy

North Dakota Attorney General

Troy Seibel, Chief Deputy

APPROVED

DATE: 4-28-17

8

MOTION

April 28, 2017

**Public Service Commission
Public Utilities
Rulemaking**

Case No. PU-16-775

**Public Service Commission
Public Utilities - Wind Decommissioning
Rulemaking**

Case No. PU-17-23

Having been approved by the Attorney General, I move the Commission adopt the proposed amendments to North Dakota Administrative Code Sections 69-06-08-01 and 69-09-02-35, and Chapter 69-09-09, and forward the proposed amendments to the Legislative Council for publication in Public Service Commission, Public Utilities, Rulemaking, Case No. PU-16-775, and Public Service Commission, Public Utilities - Wind Decommissioning, Rulemaking, Case No. PU-17-23.

NORTH DAKOTA

PUBLIC SERVICE COMMISSION

**Public Service Commission
Public Utilities
Rulemaking**

Case No. PU-16-775

CHAPTER 69-06-08

CRITERIA

Section

69-6-8-1 **Energy Conversion Facility Siting Criteria**

69-6-8-2 **Transmission Facility Corridor and Route Criteria**

69-06-08-01. Energy conversion facility siting criteria.

The following criteria must guide and govern the preparation of the inventory of exclusion and avoidance areas, and the site suitability evaluation process.

1. **Exclusion areas.** The following geographical areas must be excluded in the consideration of a site for an energy conversion facility.
 - a. Designated or registered national: parks; memorial parks; historic sites and landmarks; natural landmarks; historic districts; monuments; wilderness areas; wildlife areas; wild, scenic, or recreational rivers; wildlife refuges; and grasslands.
 - b. Designated or registered state: parks; forests; forest management lands; historic sites; monuments; historical markers; archaeological sites; grasslands; wild, scenic, or recreational rivers; game refuges; game management areas; management areas; and nature preserves.

- c. County parks and recreational areas; municipal parks; parks owned or administered by other governmental subdivisions; hardwood draws; and enrolled woodlands.
 - d. Prime farmland and unique farmland, as defined by the land inventory and monitoring division of the soil conservation service, United States department of agriculture, in 7 C.F.R. part 657; provided, however, that 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 be of negligible impact on agricultural productions, this exclusion does not apply.
 - e. Irrigated land.
 - f. Areas critical to the life stages of threatened or endangered animal or plant species.
 - g. Areas where animal or plant species that are unique or rare to this state would be irreversibly damaged.
 - h. Areas within one thousand two hundred feet of the geographic center of an intercontinental ballistic missile (ICBM) launch or launch control facility.
2. **Additional exclusion areas for wind energy conversion facilities.** The following geographical areas must be excluded in the consideration of a site for a wind energy conversion facility:
- a. Areas less than:
 - (1) One and one-tenth times the height of the turbine from

interstate or state roadway right of way;

- (2) One and one-tenth times the height of the turbine plus seventy-five feet from the centerline of any county or maintained township roadway;
- (3) One and one-tenth times the height of the turbine from any railroad right of way;
- (4) One and one-tenth times the height of the turbine from a one hundred fifteen kilovolt or higher transmission line; and
- (5) One and one-tenth times the height of the turbine from the property line of a nonparticipating landowner, unless a variance is granted. A variance may be granted if an authorized representative or agent of the permittee and affected parties with associated wind rights file a written agreement expressing all parties' support for a variance to reduce the setback requirement in this subsection. A nonparticipating landowner is a landowner that has not signed a wind option or an easement agreement with the permittee of the wind energy conversion facility as defined in North Dakota Century Code chapter 17-04.

3. **Avoidance areas.** The following geographical areas 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 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. Economic considerations alone will not justify approval of these areas. A buffer zone of a reasonable width to protect the integrity of the area must be included. Natural screening may be considered in determining the width of the buffer zone.

- a. Historical resources which are not designated as exclusion areas.
- b. Areas within the city limits of a city or the boundaries of a military installation.
- c. Areas within known floodplains as defined by the geographical boundaries of the hundred-year flood.
- d. Areas that are geologically unstable.
- e. Woodlands and wetlands.
- f. Areas of recreational significance which are not designated as exclusion areas.

4. **Additional avoidance areas for wind energy conversion facilities.** A wind energy conversion facility site must not include a geographic area where, due to operation of the facility, the sound levels within one hundred feet of an inhabited residence or a community building will exceed fifty dBA. The sound level avoidance area criteria may be waived in writing by the owner of the occupied residence or the community building.

5. **Selection criteria.** A site may be approved in an area only when it is demonstrated to the commission by the applicant that any significant adverse effects resulting from the location, construction, and operation of the facility in that area as they relate to the following, will be at an acceptable minimum, or that those effects will be managed and maintained at an acceptable minimum. The effects to be considered include:

a. The impact upon agriculture:

- (1) Agricultural production.
- (2) Family farms and ranches.
- (3) Land which the owner demonstrates has soil, topography, drainage, and an available water supply that cause the land to be economically suitable for irrigation.
- (4) Surface drainage patterns and ground water flow patterns.
- (5) The agricultural quality of the cropland.

b. The impact upon the availability and adequacy of:

- (1) Law enforcement.
- (2) School systems and education programs.
- (3) Governmental services and facilities.
- (4) General and mental health care facilities.
- (5) Recreational programs and facilities.
- (6) Transportation facilities and networks.
- (7) Retail service facilities.

(8) Utility services.

c. The impact upon:

(1) Local institutions.

(2) Noise-sensitive land uses.

(3) Light-sensitive land uses.

(~~3~~4) Rural residences and businesses.

(~~4~~5) Aquifers.

(~~5~~6) Human health and safety.

(~~6~~7) Animal health and safety.

(~~7~~8) Plant life.

(~~8~~9) Temporary and permanent housing.

(~~9~~10) Temporary and permanent skilled and unskilled labor.

d. The cumulative effects of the location of the facility in relation to existing and planned facilities and other industrial development.

6. **Policy criteria.** The commission may give preference to an applicant that will maximize benefits that result from the adoption of the following policies and practices, and in a proper case may require the adoption of such policies and practices. The commission may also give preference to an applicant that will maximize interstate benefits. The benefits to be considered include:

a. Recycling of the conversion byproducts and effluents.

b. Energy conservation through location, process, and design.

c. Training and utilization of available labor in this state for the general

- and specialized skills required.
- d. Use of a primary energy source or raw material located within the state.
 - e. Not relocating residents.
 - f. The dedication of an area adjacent to the facility to land uses such as recreation, agriculture, or wildlife management.
 - g. Economies of construction and operation.
 - h. Secondary uses of appropriate associated facilities for recreation and the enhancement of wildlife.
 - i. Use of citizen coordinating committees.
 - j. A commitment of a portion of the energy produced for use in this state.
 - k. Labor relations.
 - l. The coordination of facilities.
 - m. Monitoring of impacts.
 - n. A commitment to install lighting mitigation technology for wind energy conversion facilities subject to commercial availability and Federal Aviation Administration approval.

History: Amended effective August 1, 1979; July 1, 2006; April 1, 2013; _____.

General Authority: NDCC 49-22-18

Law Implemented: NDCC 49-22-05.1

69-09-02-35. Installation and maintenance - Conformance to National Electrical Safety Code.

The installation and maintenance of electric supply and communication lines shall conform to rules and regulations established in the ~~2012~~ 2017 edition of the National

Electrical Safety Code which is adopted by reference. Copies of these regulations may be obtained from the public service commission, state capitol, Bismarck, North Dakota 58505-0480.

History: Amended effective September 1, 1984; January 1, 1988; December 1, 1990; August 1, 1993; July 1, 1997; March 1, 2003; July 1, 2008; April 1, 2013;_____.

General Authority: NDCC 49-02-04

Law Implemented: NDCC 49-02-04, 49-20-02

NORTH DAKOTA

PUBLIC SERVICE COMMISSION

Public Service Commission
Public Utilities - Wind Decommissioning
Rulemaking

Case No. PU-17-23

CHAPTER 69-09-09

WIND ~~TURBINE~~FACILITY DECOMMISSIONING

Section

69-09-09-01	Definitions
69-09-09-02	Decommissioning Responsibility
69-09-09-03	<u>Abandonment and Useful Life - Certificate of Operation</u>
69-09-09-04	Decommissioning Period
69-09-09-05	Decommissioning Requirements
69-09-09-06	Decommissioning Plan
69-09-09-07	Existing Facilities
69-09-09-08	Financial Assurance
69-09-09-09	Failure to Decommission

69-09-09-01. Definitions.

1. ~~"Commercial wind energy conversion facility" means a wind energy conversion facility of equal to or greater than five hundred kilowatts in total nameplate generating capacity.~~ "Capacity Factor" means the ratio of the actual output generated by a facility for a period of time, to the output that could be produced at the nameplate generating capacity of that facility.

2. ~~"Commission" means the public service commission.~~ "Certificate of Operation" means an affidavit executed by the Owner certifying to the commission a facility's:
 - a. Nameplate generating capacity;
 - b. Annual capacity factor;
 - c. Annual MWh output; and
 - d. Monthly MWh output.
3. ~~"Wind turbine" means a wind turbine of equal to or greater than five hundred kilowatts in total nameplate generating capacity.~~ "Commercial wind energy conversion facility" means a wind energy conversion facility with one or more wind turbines that has a total nameplate generating capacity equal to or greater than five hundred kilowatts.
4. "Commission" means the public service commission.
5. "Construction" means any clearing of land, excavation, or other action that would affect the environment of the site of a facility, but does not include activities incident to preliminary engineering or environmental studies.
6. "Decommissioning Plan" means a plan filed with the commission that includes:
 - a. The anticipated life of the facility;
 - b. A decommissioning cost estimate excluding salvage value of the turbines and equipment;

- c. A description of the method used for determining the decommissioning cost estimate;
 - d. The anticipated manner in which the project will be decommissioned;
 - e. A description of any expected effects on present and future natural resource development; and
 - f. A detailed plan of financial assurance sufficient to ensure decommissioning.
7. "Existing facility" means a facility for which a certificate of site compatibility has been issued prior to July 1, 2017.
8. "Facility" means a commercial wind energy conversion facility including wind turbines, turbine towers, tower bases, blades, pad transformers, collector lines, substations, facility access roads, meteorology towers, and all areas disturbed by the construction, operation, maintenance or decommissioning activities.
9. "Owner" means a person who holds a certificate of site compatibility pursuant to North Dakota Century Code chapter 49-22.

History: Effective October 1, 2008; _____.

General Authority: NDCC 28-32-02, 49-02-27

Law Implemented: NDCC 49-02-27

69-09-09-02. Decommissioning responsibility.

The owner ~~or operator of a commercial wind energy conversion facility~~ is responsible for decommissioning ~~that~~the facility and for all costs associated with

decommissioning that facility and associated facilities.

History: Effective October 1, 2008; _____.

General Authority: NDCC 28-32-02, 49-02-27

Law Implemented: NDCC 49-02-27

69-09-09-03. Useful Abandonment and useful life - certificate of operation.

~~A commercial wind energy conversion facility or individual wind turbine is presumed to be at the end of its useful life if the facility or turbine generates no electricity for a continuing period of twenty four months. The presumption may be rebutted by submitting to the commission for approval a plan outlining the steps and schedule for returning the commercial wind energy conversion facility or wind turbine to service.~~

1. After construction of a facility is complete, the owner shall annually file a certificate of operation with the commission for that facility by the first of April of each year.
2. If no energy is generated by one of more wind turbines for the time period specified in the certificate of operation, a written explanation for the non-generating wind turbines must accompany the certificate of operation.
3. A facility is presumed to be at the end of its useful life if its annual capacity factor is less than ten percent for two consecutive years.
4. A facility is presumed to be abandoned if, after commencement of construction and prior to completion, a period of twenty-four consecutive months has passed with no significant construction.
5. A presumption under this section may be rebutted by filing a plan for

commission approval outlining the steps and schedule for continuing construction or operation of the facility or wind turbine.

History: Effective October 1, 2008; _____.
General Authority: NDCC 28-32-02, 49-02-27
Law Implemented: NDCC 49-02-27

69-09-09-04. Decommissioning period.

The facility owner ~~or operator~~ shall begin decommissioning a ~~commercial wind energy conversion facility or wind turbine~~ within ~~eight~~twelve months after the ~~time the facility abandonment~~ or turbine reaches the end of its useful life, ~~as determined in section 69-09-09-03.~~ Decommissioning must be completed within ~~eighteen~~twenty-four months after the ~~facility abandonment~~ or turbine reaches the end of its useful life unless the commission approves a plan specifying the steps and schedules to return the facility to operation.

History: Effective October 1, 2008; _____.
General Authority: NDCC 28-32-02, 49-02-27
Law Implemented: NDCC 49-02-27

69-09-09-05. Decommissioning requirements.

Decommissioning ~~and site restoration~~ includes:

1. ~~dismantling~~Dismantling and removal of all towers, turbine generators, transformers, and overhead cables;
2. ~~removal~~Removal of underground cables to a depth of twenty-four [60.96 centimeters] inches;
3. ~~removal~~Removal of foundations, buildings, and ancillary equipment to a depth of:

a. three~~Three~~ feet [91.44 centimeters] for facilities constructed before July 1, 2017; and

b. ~~removal of surface road material and restoration of the roads and turbine sites to substantially the same physical condition that existed immediately before construction of the commercial wind energy conversion facility or wind turbine. The site must be restored and reclaimed to the same general topography that existed just prior to the beginning of the construction of the commercial wind energy conversion facility or wind turbine and with topsoil respread over the disturbed areas at a depth similar to that in existence prior to the disturbance. Areas disturbed by the construction of the facility and decommissioning activities must be graded, topsoiled, and reseeded according to natural resource conservation service technical guide recommendations and other agency recommendations, unless the landowner requests in writing that the access roads or other land surface areas be retained.~~Four feet [121.92 centimeters] for facilities constructed on or after July 1, 2017;

4. Site restoration and reclamation to the approximate original topography that existed prior to construction of the facility with topsoil respread over the disturbed areas at a depth similar to that in existence prior to the disturbance; and

5. Grading and topsoil of areas disturbed by the facility, and reseeding according to natural resource conservation service recommendations, unless the commission approves an owner request signed by the applicable landowner, identifying the surface features the landowner prefers to remain in place, and the reason the landowner prefers those features to remain.

History: Effective October 1, 2008; _____.

General Authority: NDCC 28-32-02, 49-02-27

Law Implemented: NDCC 49-02-27

69-09-09-06. Decommissioning plan.

~~Prior to commencement of operation of a commercial wind energy conversion facility or wind turbine, the facility or turbine owner or operator shall file for commission review the estimated decommissioning cost per turbine, in current dollars at the time of filing, for the proposed facility or turbine and a comprehensive decommissioning plan that describes any expected effect on present and future natural resource development and how the facility or turbine owner or operator plans to pay for decommissioning the facility or turbine as required by section 69-09-10-05 at the appropriate time. The commission may at any time require the owner or operator of a commercial wind energy conversion facility or wind turbine to file a report with the commission describing how the facility or turbine owner or operator is fulfilling this obligation.~~

1. Prior to the commencement of operation of a facility, the owner must have an approved decommissioning plan.

2. The Commission shall make a determination on the decommissioning plan no later than sixty days after decommissioning plan is deemed complete by the commission.

3. A decommissioning cost estimate for a facility:
 - a. Must be made by a professional engineer licensed by the State of North Dakota and at the owner's expense;

 - b. May include a decommissioning cost estimate including salvage value in addition to the decommissioning cost estimate excluding salvage value;

 - c. Must be updated and filed with the commission ten years after initial approval of the decommissioning plan and then continue to be updated and filed with the commission every five years until decommissioning is complete.

4. The commission may at any time require the owner to file an updated decommissioning plan.

History: Effective October 1, 2008; amended effective October 1, 2010; amended effective

General Authority: NDCC 28-32-02, 49-02-27

Law Implemented: NDCC 49-02-27

69-09-09-07. Existing facilities.

~~Owners and operators of existing commercial wind energy conversion facilities shall file with the commission the information required in section 69-09-09-06 within one year after July 1, 2008.~~ The owner of an existing facility shall provide financial assurance

after the tenth year of operation sufficient to complete decommissioning.

History: Effective October 1, 2008; _____.

General Authority: NDCC 28-32-02, 49-02-27

Law Implemented: NDCC 49-02-27

69-09-09-08. Financial assurance.

~~After the tenth year of operation of a commercial wind energy conversion facility or wind turbine, the commission by order may require the owner or operator to secure a performance bond, surety bond, letter of credit, corporate guarantee, or other form of financial assurance that is acceptable to the commission to cover the anticipated costs of decommissioning the commercial wind energy conversion facility or turbine. The commission may accept a corporate guarantee if the corporation has a tangible net worth of at least ten million dollars, a ratio of total liabilities to net worth of 2.5 or less, and a ratio of current assets to current liabilities of 1.2 or greater; or if it has an investment grade current rating for its most recent bond issuance of "Baa" or higher as issued by Moody's Investors Service "BBB" or higher as issued by Standard and Poor's Corporation, or an equivalent rating by any other nationally recognized statistical rating organization, as defined and approved by the United States securities and exchange commission.~~

1. Prior to commencement of construction of a facility, the owner shall provide financial assurance equal to five percent of the estimated cost of construction of the facility that may be used to decommission the facility in the event it is abandoned prior to operation. Within sixty days of receipt of written notice from the owner that the facility is commercially operational, the commission shall return or release said financial assurance provided to

the commission.

2. Prior to commencement of operation of a facility, the owner shall provide financial assurance that is acceptable to the commission and sufficient to ensure complete decommissioning.
3. Financial assurance may be in the form of a performance bond either as, or combination of, a surety bond, irrevocable letter of credit, self-guarantee, parent guarantee, or another form of financial assurance that is acceptable to the commission to cover the anticipated costs of decommissioning.
4. The commission may allow the owner to provide financial assurance through an incremental bond schedule. To be given consideration, an incremental bond schedule must include an initial bond increment prior to commencement of operation.
5. The commission may accept a self-guarantee or parent guarantee if:
 - a. The owner has been in continuous operation as a business entity for five years preceding the application. The commission may accept a self-guarantee with less than five years of continuous operation if guaranteed with a parent guarantee and the parent company has been in operation for at least five years preceding the application; and
 - b. The owner or parent guarantor has or is one of the following:

- (1) A current rating in the "A" category or higher for its most recent bond issuance or issuer rating as issued by Moody's Investors Service, Standard and Poor's Corporation, or an equivalent rating by any other nationally recognized statistical rating organization, as defined and approved by the United States securities and exchange commission, that is acceptable to the commission. If an organization has different ratings among various rating organizations, the commission shall accept the higher of the ratings;
 - (2) A tangible net worth of at least ten million dollars, a ratio of total liabilities to net worth of 2.5 or less, and a ratio of current assets to current liability of 1.2 or greater; or
 - (3) An electric public utility as defined by N.D.C.C. § 49-03-01.5(2).
6. The total amount of an outstanding self-guarantee for decommissioning may not exceed twenty-five percent of the owner's tangible net worth in the United States.
 7. The combined total amount of an outstanding self-guarantee and parent guarantee for decommissioning may not exceed twenty-five percent of the owner's and parent guarantor's combined tangible net worth in the United States.

8. If any financial assurance is modified, cancelled, suspended or revoked, the Owner shall immediately notify the commission and provide financial assurance as soon as practicable sufficient to ensure complete decommissioning.
9. The commission may require additional financial assurance upon a finding that the current financial assurance for a facility is not sufficient to ensure complete decommissioning.

History: Effective October 1, 2008; _____.
General Authority: NDCC 28-32-02, 49-02-27
Law Implemented: NDCC 49-02-27

69-09-09-09. Failure to decommission.

If the ~~commercial wind energy conversion facility~~ owner or operator does not complete decommissioning, the commission may take such action as ~~may be necessary~~ to complete decommissioning, including ~~requiring~~ action to require forfeiture of the ~~a~~ bond. The entry into a participating landowner agreement shall constitute agreement and consent of the parties to the agreement, their respective heirs, successors, and assigns, that the commission may take such action as may be necessary to decommission a ~~commercial wind energy conversion facility or wind turbine~~, including the exercise by the commission, commission staff, and their contractors of the right of ingress and egress for the purpose of decommissioning the ~~commercial wind energy conversion facility~~.

History: Effective October 1, 2008; _____.
General Authority: NDCC 28-32-02, 49-02-27
Law Implemented: NDCC 49-02-27