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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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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.pA, 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.