

April 20, 2018

Daniel P. Wolf, Executive Secretary
Minnesota Public Utilities Commission
127 7th Place East, Suite 350
St. Paul, MN 55101-2147

Re: Application for Site Permit Repowering
Trimont Wind Project
Docket No. IP6907/WS-13-258

Dear Mr. Wolf:

Attached are the **Reply Comments** of the Minnesota Department of Commerce Energy Environmental Review and Analysis (EERA) staff on Permit Amendment approval in the following matter:

The Application of Trimont Wind I, LLC for a Large Wind Energy Conversation System Site Permit Amendment for Repowering the 100.5 MW Trimont Wind Project in Martin and Jackson Counties

Trimont Wind I, LLC has submitted a Site Permit Amendment Application pursuant to Minnesota Rule 7854.1300 to retrofit the existing Trimont Wind Project and repower the Project as an 107.2 MW LWECs.

This filing was made on December 21, 2017, by:

Adam Sokolski
Avangrid Renewables
527 Marquette Avenue, Suite 1600
Minneapolis, MN 55402

EERA supports the repowering “retrofit” of the Trimont Wind Farm as in the best interest of the state, as per legislative and Commission policy. Additionally, EERA believes granting the requested exemptions from the Commission’s setback standard are justified in this particular case.

In its original comments,¹ EERA expressed concern over whether the Site Permit Amendment Application contained all the information necessary for the Commission to approve exempting its wind access buffer standard and suggested the Applicant should make such information available for further review by the Commission. Avangrid filed the requested information on April 2, 2018.² The information included an “Energy Yield Analysis” that supports the assertion that the new turbines will actually reduce wake loss and therefore the potential for any infringement on the wind rights of adjacent property owners.

¹ Comments and Recommendations on a Permit Amendment, EERA, March 19, 2018, eDocket no. [20183-141180-01](#).

² Comments in Response to EERA Comments, Trimont Wind I, LLC, April 2, 2018, eDocket nos. [20184-141628-01](#), [02](#), [03](#), [04](#), [05](#), [06](#), [07](#), [08](#).

Wind Access Buffers

Wind access buffers were initially established in permits as protection against infringement of wind development rights on adjacent properties. This protects an adjacent landowner from downstream wake loss from a wind project, preserving their wind resource for their own development. (In turn, adjacent landowners would be required to adhere to a similar setback under a Large Wind Energy Conversion System (LWECS) permit in order to develop their own resource.)

Early permits, including the Site Permit for the Trimont Wind Project, required a 5 rotor diameter (RD) setback from adjacent non-participant property boundaries. As more data came available on the effects of wake loss and the impacts of wind direction, buffer requirements were adjusted to a 3 RD x 5 RD setback, with the larger setback designated on a line with the prevailing wind patterns at the site. In other words, based on best knowledge at the time, wind access buffers were reduced on the non-prevailing wind direction. This level of resource buffering continues to be the standard today when issuing new permits.

There has never been a legally-established buffer requirement to protect individual wind rights, largely because the technology and topology of an individual project could potentially dictate a different number required to protect those rights. However, over time, 3 RD x 5 RD became a *de facto* standard. Eventually, 3 RD x 5 RD was incorporated into the Commission's General Wind Permit Standards in 2008.³ According to this standard, the intent was to "protect wind rights and future development options of adjacent rights owners."

The only time in which the buffer is applied as a "setback," much like a 1,000 foot setback from residences, was designated in the same 2008 order. The Commission, in response to a request from MDNR, applied the 3 RD x 5 RD setback to public lands.

Exemptions from the Wind Access Buffer Standard

EERA believes that, since the standard was established to protect adjacent wind rights, exemptions from that standard that do not impinge on the resource or development opportunities of adjacent landowners should be permissible. In this case, the Applicant's request does not appear to impinge on any neighboring wind resource development potential.

To be clear, EERA would not support exemptions that encroached on wind rights of uncontrolled properties. In its original comments, EERA noted that it was unclear whether the requested exemptions made the required protections. The Applicant responded by filing an energy yield assessment providing technical documentation that the turbine retrofit would result in a decrease in wake loss. The resulting equation is that 1) the current turbines and blades are in compliance, and 2) the replacement blades result in less wake loss, so 3) even though the turbines would no longer meet the 3 RD x 5 RD standard, they do meet the intended requirement of the wind access buffer to protect adjacent wind rights.

EERA is not suggesting the Commission should alter its general permit standards. The long standing 3 RD x 5 RD setbacks have continued use as a practical standard and precedent. However, in this instance, the Applicant requires a number of minor exemptions in order to execute its retrofit of the Trimont Wind Project. The retrofit improves the efficiency of the Project, maximizes use of the wind resource, and does so within the Applicant's own wind rights-controlled area. EERA would advise that the requested exemptions honor the Commission's intent in establishing the wind access buffer.

³ Order Establishing General Wind Permit Standards, Commission, January 11, 2008, eDocket no. [4897855](#).

Contact with Adjacent Landowners

The Applicant provided less meaningful information regarding EERA's second question concerning communication with landowners. EERA's intention in the request was to determine if there had been any special efforts to share information of the impacts of the retrofitting with non-participating landowners.

However, the Project information and public meeting notices were sent to all participating and non-participating landowners. EERA reconfirms that no comments were received from any non-participating landowners, and no contesting facts have been submitted. Since the turbine placements will not change, and only the overall length of the blades will be external evidence of the repowering, any visual or other impact of the changes on any landowners should be *de minimus*.

Recommended Permit Language

EERA overall stands by its recommended permit language in its original comments, including its recommendation to include the MDNR recommended blade feathering requirement in Section 7.5.4. EERA also stands by its recommendation that the Commission require the same annual reporting requirements as other permittees as described in Sections 10.8 and 10.9. Given the summary nature of the requested production reports, EERA disputes the claim to trade secret data.

EERA does recommend the following changes to its original recommended permit language:

4.1 Wind Access Buffer

Wind turbine towers shall not be placed less than five rotor diameters on the prevailing wind directions and three rotor diameters on the non-prevailing wind directions from the perimeter of the property where the Permittee does not hold the wind rights, without the approval of the Commission. This section does not apply to public roads and trails.

In order to support the retrofit of 91-meter turbine blades, the Commission grants exemption from its General Wind Permit Standard 3 RD x 5 RD setback for turbines 4, 6, 7, 12, 16, 17, 18, 19, 22, 23, 34, 46, 47, 48, 54, 55, 56, 57, 58, and 59.

4.10 Turbine Spacing

The turbine towers are within the site boundary as shown in the official site maps. The turbine towers shall be spaced no closer than three rotor diameters in the non-prevailing wind directions and five rotor diameters on the prevailing wind directions. If required, up to ~~20~~ 30 percent of the towers may be sited closer than the above spacing but the Permittee shall minimize the need to site the turbine towers closer.

Sincerely,



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