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PUBLIC UTILITY COMMISSION

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February 20, 2020

Ms. Judith Whitney, Clerk
Vermont Public Utility Commission
112 State Street, Floor 4
Montpelier, Vermont 05620

Docket 7250, Amended Petition of Deerfield Wind, LLC, for a certificate of public good authorizing it to construct and operate a 15-turbine, 30 MW wind generation facility in Searsburg and Readsboro, Vermont

Re: Department of Public Service Comments on Fall 2020 Sound Monitoring

Dear Ms. Whitney:

The Department of Public Service (Department) is filing its comments replying to the February 12, 2020 order of the Public Utility Commission (Commission). The Department is submitting the original and four copies of its comments, as has been previously permitted in this docket. Please contact the Department if you have questions.

Sincerely,

/s/ Allison Bates Wannop

Allison Bates Wannop
Special Counsel

Enclosure
cc: Service List

**STATE OF VERMONT
PUBLIC UTILITY COMMISSION**

FEB 20 '20 AM 11:39
PUBLIC UTILITY COMMISSION

Docket No. 7250

Amended Petition of Deerfield Wind, LLC, for a certificate)
of public good authorizing it to construct and operate a 15-)
turbine, 30 MW wind generation facility, and associated)
transmission and interconnection facilities, on)
approximately 80 acres in the Green Mountain National)
Forest, located in Searsburg and Readsboro, Vermont, with)
7 turbines to be placed on the east side of Route 8 on the)
same ridgeline as the existing GMP Searsburg wind facility)
(Eastern Project Area), and 8 turbines along the ridgeline to)
the west of Route 8 in the northwesterly orientation)
(Western Project Area))

**DEPARTMENT OF PUBLIC SERVICE COMMENTS ON FALL 2020 SOUND
MONITORING**

On January 9, 2020, the Public Utility Commission (Commission) directed petitioner Deerfield Wind, LLC (Deerfield) to select whether to (1) submit to an additional round of fall sound monitoring; or (2) to conduct outside-to-inside noise reduction (OINR) testing at the residence of Mr. Tom Shea (Mr. Shea), a location known as “Site C.” The Commission stated that if Deerfield elected to undergo further sound monitoring, “the results will be reported applying the Part 2 Standard and the Part 3 Standard for comparison” and that “the Commission will consider implementing the parties’ recommendations to improve data collection.”¹

On January 31, 2020, Deerfield submitted a letter electing an additional round of sound monitoring to be conducted in the Fall of 2020. On February 12, 2020, the Commission issued a procedural order requesting comments. The Department of Public Service (Department), and its sound monitoring consultants Cross Spectrum Acoustics (CSA), submit the following comments regarding the Fall 2020 sound monitoring.

¹ *Amended Petition of Deerfield Wind, LLC*, Docket 7250, Order of 1/9/2020 at 11.

Deerfield's Requests

The Department first comments on three requests Deerfield made in its January 31, 2020 filing. The Department agrees with two of those requests.

First, the Department agrees that Fall 2020 monitoring should be limited to Site C. The purpose of the Fall 2020 monitoring is to determine whether to conduct OINR testing at Mr. Shea's residence. Monitoring at Sites A and B will not inform this question. The Commission already concluded that the Fall 2018 and Spring 2019 data show that the project complies with the CPG's sound limits.²

Second, the Department does not agree with Deerfield's request that "CSA should remove from the data any period of microphone height wind gusts that are greater than 4 to 5 m/s, in accordance with the Commission-approved Protocol."³ This is not required under the Final Sound Monitoring Protocol for Deerfield Wind (Protocol). The Protocol requires that data during periods with wind speeds *above* 5 m/s be removed from the results.⁴ Wind speeds *between* 4 and 5 m/s, however, "should be carefully reviewed to identify any wind contamination that creates pseudo-noise or wind-induced noise that is sufficient to mask wind turbine sound *prior to its inclusion* in the filtered data set."⁵ In the two previous measurement periods, CSA followed this methodology: it excluded data with wind speeds above 5 m/s and reviewed periods with wind speeds between 4 and 5 m/s. CSA contends that it is appropriate to follow a

² *Id.* at 10.

³ *Amended Petition of Deerfield Wind, LLC*, Docket 7250, Deerfield's filing at 1, filed 1/31/2020.

⁴ *Amended Petition of Deerfield Wind, LLC*, Docket 7250, Deerfield Wind - the Spring 2019 Sound Monitoring Compliance Report, Appendix A, Final Sound Monitoring Protocol for Deerfield Wind, § 3.0, Data Processing, at 8 (PDF p. 51), filed 8/14/19; revised 10/11/19 ("Winds above 5 m/s create a large amount of false noise generated from pressure fluctuations around the microphone.").

⁵ *Id.* (emphasis added).

consistent approach for the Fall 2020 measurements. The Department therefore recommends that the Commission deny this request.

Third, the Department agrees that at least one hour of valid data should be collected in order to calculate a one-hour Leq for the purpose of determining whether OINR testing is required. Relatedly, the Department requests that the Commission waive the Protocol's requirement that CSA obtain two hours of valid data, since the purpose of the Fall 2020 monitoring is to determine compliance with the OINR measurement requirement. An hour of valid data, including at least 30 minutes from a single shutdown, would be sufficient to satisfy the Commission's requirement to apply the Part 2 Standard and Part 3 Standard for comparison.⁶

Matters for Clarification

In addition to the above comments, the Department requests and provides clarification below on additional matters relating to the Fall 2020 Sound Monitoring.

1. The Department requests clarification that the Fall 2020 measurements do not need to include the secondary monitoring location Site C-Alt. First, using Site C-Alt requires attaching equipment to Mr. Shea's barn and using that location is contingent upon Mr. Shea's approval. Second, CSA asserts that Site C-Alt is unnecessary because sufficient valid data were collected at Site C during Spring 2019 and sufficient data are likely to be collected during the Fall 2020 monitoring. This is because CSA excluded less data in the Spring 2019 measurements when it used one-minute weather data, compared to the Fall 2018 measurements when it used 10-minute weather data. CSA will use one-minute weather data in Fall 2020 and therefore will

⁶ Under the Part 2 methodology, at least 30 minutes of valid data acquired during a single one-hour period would be sufficient. Under the Part 3 methodology, 60 minutes of valid data, potentially acquired during different shutdowns, would be sufficient.

exclude less data. Additionally, CSA will only need to obtain one hour of valid data for the Fall 2020 measurements if the Commission grants the Department's request, *supra*, to waive the Protocol's requirement to obtain two hours of valid data. Since these two facts make it far more likely that CSA will obtain sufficient data in Fall 2020, the Department requests that the Commission not require use of Site C-Alt.

2. The Department requests that the Commission waive the requirement to conduct a session of attended monitoring during the Fall 2020 measurements, since this requirement has been met previously during both the Fall 2018 and the Spring 2019 measurements. Additionally, an attended measurement is not relevant to determine whether the standard for OINR testing has been met.

3. The Commission Order states that, "The results will be reported applying the Part 2 Standard and the Part 3 Standard for comparison." The governing procedure for the sound monitoring program is the Commission-approved Final Sound Monitoring Protocol for Deerfield Wind, which references neither Part 2 nor Part 3 of ANSI Standard ANSI S12. CSA will report results for the upcoming Fall 2020 measurements in two ways: (1) following the procedure utilized in both the Fall 2018 and Spring 2019 Monitoring Reports (*i.e.*, combining data samples associated with different shut-downs, including over multiple days) and (2) reporting only data samples contained within a single one-hour period before or after each shut-down. CSA believes that this is the purpose of the Commission's directive. The Department requests that the Commission clarify that CSA is not required to conform to any or all of the other requirements of ANSI S12 Part 2 and Part 3.

4. To date, CSA's central weather monitoring station (which logged temperature and precipitation data) was located at Site B. CSA intends to relocate this station to Site C for the Fall 2020 measurements. The Department is informing the Commission and the parties of this proposed change. This relocation does not require Commission approval since the location of the weather monitoring station is not dictated by Commission order.

5. For both the Fall 2018 and the Spring 2019 measurements, CSA used wind speed data from Turbines W-01 and W-08 to determine whether the requirement for hub-height wind speed was satisfied. If the Fall 2020 monitoring will occur only at Site C, CSA proposes using wind speed data from only Turbine W-08 (the closest turbine to Site C) for this purpose. CSA would continue to collect microphone-height wind data at Site C, as with the previous measurements.

Dated at Montpelier, Vermont, this 20th day of February, 2020.

VERMONT DEPARTMENT OF PUBLIC SERVICE

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