

July 12, 2021

Mahdi Zangeneh

Senior Noise Engineer

Approval Services Section, Environmental Assessment & Permissions Branch
Ministry of the Environment, Conservation and Parks (MECP)

135 St. Clair Avenue West
Toronto ON M4V 1P5

Via email: Mahdi.Zangeneh@ontario.ca

Re: Response to email request of July 6, 2021
Borealis Blade Protection System Immission Audit
Amherst Island Wind Project
Renewable Energy Approval Number: 7123-9W9NH2

Dear Mr. Zangeneh,

Further to the email request of July 6, 2021, please find the project responses below:

- 1. Calibration Date:** The calibration date on the calibration certificate for the both Svantek 977 with serial numbers 36816 and 36827 and states they was calibrated on December 27, 2019. Table 2 states they were calibrated December 27, 2021. As of the submission of the I-Audit report, the date has not passed December 27, 2021. Please confirm if the calibration certificates were valid during the time of the I-Audit measurements. [Table 2 includes typos for the calibration dates of the two Svantek monitors. They were both calibrated on December 24, 2020 and the next calibration due date is December 24, 2021. Additionally, the report included the older calibration records for these two units. The most recent calibration certificates from December 2020 \(expire December 2021\) are attached.](#)
- 2. Time History Data:** The ministry is unable to confirm the data count and sound levels of the Time History Data in tables 8, 9, and 10 using the Excel sheet data. Please label which data points were included in the time history assessment in the Excel sheet of raw data and provide a separate sheet for these data points. [A separate excel sheet will be provided. Please note that the data counts provided in these tables utilize an ON condition for all turbines within 3km of the monitoring location \(ON is represented by at least 100 kW output\). The Immission Report, dated June 24, 2021 includes the statement “Electrical power filters were not included on the data presented below”, this was with reference to the 75% electrical power filter for turbine S37.](#)



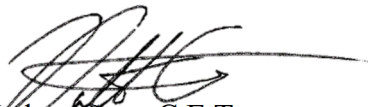
3. **SLM below 2000 Hz:** Please confirm if the labels of SLM below 2000 Hz and SLM Leq in the Excel sheet are incorrectly swapped. The SLM Leq sound levels are lower than the SLM below 2000 Hz sound levels. If the labels are incorrectly swapped, please correct the labels. [The labels are correct. The Leq determined by A-weighting and summing the one-third octave band data typically overestimates the overall Leq \(SLM below 2000 Hz column\). There are two primary reasons for this.](#)
- [The A-weighting in the calculated Leq value is applied at discreet one-third octave bands. This assumes all acoustic energy in each one-third octave band is at the centre frequency where the A-weighting correction value is applied. If the calculation were applied at 1/12 octaves or higher resolution, the calculated value would be closer to the Leq determined by the sound level meter.](#)
 - [There is some overlap in the one-third octave band filters which leads to some acoustic energy being counted twice. The one-third octave band filters in the Svantek 977 sound level meters meet the Class 1 requirements of IEC 61260-1.](#)


[Based on the above, the calculated Leq for frequencies below 2000 Hz is conservative \(tends to be an overestimation of the actual Leq for frequencies below 2000 Hz\).](#)

4. **Secondary Wind Screen:** Please confirm if the data was adjusted for the insertion loss from the Secondary Wind Screen. Include the spectral insertion loss/overall loss of the Secondary Wind Screen in the report. [A secondary windscreen was not used during the Immission measurements.](#)
5. **Downwind data:** Please provide an Excel sheet data including valid data points used in the assessment. [An updated excel sheet with the valid downwind data will be provided.](#)

We trust the above satisfies the comments. An updated Immission Audit Report is appended with this letter. If you have any questions or additional comments, please do not hesitate to contact us.

Yours truly,
Howe Gastmeier Chapnik Limited


Nathan Gara, C.E.T.
Project Consultant


Ian R. Bonsma, PEng, INCE
Senior Associate

