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May 21, 2025

Township of Armour  
PO Box 533, 56 Ontario Street  
Burk's Falls, ON Canada,  
P0A 1C0

Attn: Charlene Watt  
Municipal Clerk

**Re: Review of Air and Noise Assessments for the Proposed Battery Energy Storage System (BESS) at 219 Peggs Mountain Road, Burk's Falls, Ontario**  
**Cambium Reference: 23256-001**

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Dear Charlene Watt,

As requested by the Township of Armour (the Township), Cambium Inc. (Cambium) has been retained to provide comments related to the Acoustic Assessment Report (various versions), the Air and Gas Emissions Memo, and a Vibration letter (the Studies) prepared for a proposed Battery Energy Storage System (BESS) to be located on 219 Peggs Mountain Road, Burks Falls (the Development) completed by various authors.

Cambium's understanding of the scope of work was to review the suitability of the technical report relating to environmental air, noise, and vibration impacts. Therefore, Cambium assumes the criteria of suitability is the consideration of impacts under Ministry of the Environment Conservation and Parks (MECP) guidance.

Cambium has approached this review from the perspective of our expertise and experience related to similar studies and MECP guidelines.

The following documents were reviewed by Cambium:

- *219 Peggs Mountain Road, Burks Falls, Ontario, Acoustic Assessment Report*

**Prepared by:** EXP

**Addressed to:** Solarbank Corporation

**Dated:** October 3, 2024



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- *219 Peggs Mountain Road, Burks Falls, Ontario, Acoustic Assessment Report*

**Prepared by:** EXP

**Addressed to:** Solarbank Corporation

**Dated:** October 25, 2024 (Version 1.1)

- *219 Peggs Mountain Road, Burks Falls, Ontario, EASR Noise Report*

**Prepared by:** EXP

**Addressed to:** Solarbank Corporation

**Dated:** October 4, 2024

**Accessed:** Publicly posted on Access Environment

- *Site Plan (indicated as “for noise study”)*

**Prepared by:** Solarbank Corporation

**Dated:** November 28, 2024

- Letter Subject: *BESS Vibration*

**Prepared by:** Evlo Energy

**Addressed to:** Solarbank Corporation

**Dated:** March 5, 2025

- *GTR-23015113-A0 Environmental Compliance Approval – Air Emissions (ECA/EASR – Air) Requirements for the Proposed Battery Storage Site 903*

**Prepared by:** EXP

**Addressed to:** Solarbank Corporation

**Dated:** September 26, 2024 (Version 3.0)

Cambium was also provided documents such as the planning justification report. Note that these documents are not technical air/noise documents and were reviewed only for context and continuity.





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## APPLICABLE GUIDANCE/CRITERIA

In Cambium's opinion the applicable guidance for these Studies would come from the following sources:

- Provincial Policy Statement and other Planning guidance.
- Local Official Plan
- Town Bylaws
- Ministry of the Environment Conservation and Parks Guidelines:
  - Model Municipal Noise Control Bylaw
  - NPC-300
  - D-Series Planning Guidelines
  - EASR and approval guidance and regulations

As per our agreed upon scope, Cambium did not complete duplicate calculations, instead random checks of the presented calculations were made to confirm the results and conclusions of the Studies. The focus of the review was on the technical methodologies used and whether they meet standard practice in the field of acoustics. This is not a second opinion.

A site visit was not included in Cambium's scope of work.

## PREFACE

Opinions expressed in this review are only for consideration and are not intended as modifications to the original documents. Cambium's opinions are offered for the consideration of the land use planning authority. This is to say that Cambium does not have authority in the planning process, the Township is the authority and must exercise its authority based on the Township's interpretation of our comments and opinions.

## INTRODUCTION

The Studies are in support of a proposed BESS system located at 219 Peggs Mountain Road. It appears there is an existing solar power generation project on



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May 21, 2025

the property. There are dwellings on the Peggs Mountain Road. To the north is a licensed quarry. Most uses in the area are rural residential and agricultural.

It is understood that the Studies are intended to support a planning application.

## GENERAL COMMENT REGARDING REPORTS

Based on Cambium's review of available documents it is difficult to understand timelines, and which report is most relevant to the current application.

For example, the site plan that is stated to be for the noise study is dated more than a month after the noise study was completed.

In addition, there is a letter that provides explanation for why the BESS does not require ECA, dated September 2024. However, it appears an EASR registration was completed in October 2024 for the BESS at the property. This is somewhat confusing since the letter appears to argue that the BESS is exempt under Ontario Regulation 524/98, which would suggest that EASR registration is not required.

## SUMMARY OF CAMBIUM COMMENTS - NOISE STUDIES

Cambium would summarize our comments as follows:

1. It would be preferred if the proponent could clarify which noise/acoustic study should be considered the most recent and most applicable.
2. NPC-300 considers all noise sources located within one property boundary to be one "stationary source". The noise studies provided appear to address only the BESS noise sources.
  - a. Please confirm that there are no significant noise sources related to the solar farm that seems to share the property.
  - b. If the solar farm does have noise sources, they should be included in any NPC-300 compliant noise study for the property.
  - c. We would note that it is possible that the two operations could have separate approvals, however the NPC-300 guideline is clear that



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the assessment should include all noise sources on the same property.

3. In Cambium's experience addressing BESS noise, the units typically have different noise levels depending on charge status and use states. Can it be confirmed that the test data relied on is the predictable worst-case scenario for these units?
4. It is unclear how transformer sound power was calculated. The manufacturer data provided does not indicate what type of sound rating is provided (IE NEMA, IEEE Methods etc.). The report does not lay out how dBA sound power was determined from this rating, which is listed in dB.
5. Supporting calculations indicate spectral data was used in assessment, however the supporting information is all single value noise measurement data. How was the spectrum of each source determined?
6. The noise studies do not seem to account for the vacant lot, or new residential development at 223 Peggs Mountain Road, directly to the west of the receptor location (POR1).
7. The noise studies do not seem to address the three future residential lots to be potentially severed from the northeast side of the property that are shown in the air emissions letter and noted in the planning justification report.
8. It is not clear where the barrier effect in the sample calculations is coming from. Is this from modelling structures on site or does the topography break line-of-sight?
9. Calculation settings for the CADNA software are not provided, Cambium cannot fully review the results without knowing the software settings.

## SUMMARY OF CAMBIUM COMMENTS - VIBRATION LETTER

Cambium would summarize our comments as follows:





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10. Based on our understanding of the Townships concern, they are requesting support that the BESS would not have any issue with the possible vibration impacts from the nearby quarry blasting.

- a. The letter quotes UL and NFPA standards, however Cambium's understanding is that the Township may request that an applicant address any concern for compatibility. It is not clear whether the UL and NFPA standards address the Township's concern about quarry blasting vibrations impacting the BESS.
- b. Cambium would note that in Ontario there are vibration limits that must be met at all existing homes around a quarry. Based on the Site Plans we have reviewed there are homes in closer proximity to the quarry than the BESS. Provided the BESS is no more sensitive than a dwelling, it is unlikely that this is a concern.

11. Cambium would agree that the BESS is not a significant source of vibration.

## SUMMARY OF CAMBIUM COMMENTS - AIR EMISSIONS LETTER

Cambium would summarize our comments as follows:

12. Paragraph 2 of the letter states that there will be no emissions in normal operations. However, it also seems to state that if the system is not in function for 24 hours there will be hot gas evacuated from the equipment.

- a. It is not stated how often these emissions may occur. If this is not an emergency condition, and the emissions may be relatively frequent it is possible that the emissions may require assessment.

13. Paragraph 2 also states that simulations show most gasses remain within the equipment, and that emissions will elevate in altitude very quickly, eliminating any risk to human safety.

- a. If applicable, please confirm what emission dispersion model was used to model the emissions from the equipment.



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- b. Please clarify what criteria was used to confirm the level of risk to human safety.

14. The letter concludes that the BESS is exempt from approvals, however an EASR registration was completed after this letter. Please clarify.

15. Cambium has noted the solar facility holds an EASR Registration, and the BESS has a registration. If the two uses are on the same property, this would suggest to Cambium that cumulative assessment should potentially be considered if both have significant emissions.

## **INFORMATIONAL COMMENTS FOR THE CONSIDERATION OF LAND USE PLANNING AUTHORITY**

16. The Planning Authority may wish to consider a condition to verify that the recommendations of the report are implemented during detailed design also that the equipment that is ultimately installed matches the noise report. This is often achieved by a condition requiring some kind of verification be provided by a qualified acoustical consultant at later stages of design.

17. In addition to our comments, some common recommendations for conditions made for this type of development could be considered by the Planning Authority for requested or required inclusion on any approval document. Note that generally some of these are good practice and not necessarily required by regulation or guidance:

- a. Limitation on construction activities to reflect the local noise bylaw.
- b. Consideration to ensure control of dust during construction.
- c. Requirement for verification of the implementation of noise controls at completion of construction.
- d. Verification of the noise levels of the site after construction.





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**LIMITATIONS OF REVIEW**

Cambium was not provided with the modelling data therefore an in-depth review of the modelling is not possible. Cambium has requested above that more information on calculation methods be provided.

If the proposed development significantly changes, a new report and potentially new review should be completed to verify compliance is maintained.







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**CLOSING**

In Cambium's opinion the Township may wish to request the proponent provide further clarification to address our comments above. Based on the predicted noise levels our individual comments may not impact the conclusion of the report. However, the combination of all comments may result a concern for predicted impacts.

Cambium trusts this satisfies the requirements of a peer review as requested by the Township. Please feel free to contact the undersigned with any questions.

Best regards,

**Cambium Inc.**

DocuSigned by:

3A05F657DA6D472...

Trevor Copeland, P.Eng.  
Senior Project Manager

DocuSigned by:

235B4FD342E04DA...

Trevor Ross, P.Eng.  
Specialist, Acoustics

TMC/tgr

Encl.      *Qualifications and Limitations*

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2025-05-22





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**REFERENCES**

MOE. (1995). *D-Series - Environmental Land Use Planning Guides*. Ontario  
Ministry of the Environment.

MOECC. (2017). *NPC-300 - Environmental Noise Guideline Stationary and  
Transportation Sources - Approval and Planning*. Ontario Ministry of the  
Environment and Climate Change.





May 21, 2025

## QUALIFICATIONS AND LIMITATIONS

### Limited Warranty

In performing work on behalf of a client, Cambium relies on its client to provide instructions on the scope of its retainer and, on that basis, Cambium determines the precise nature of the work to be performed. Cambium undertakes all work in accordance with applicable accepted industry practices and standards. Unless required under local laws, other than as expressly stated herein, no other warranties or conditions, either expressed or implied, are made regarding the services, work or reports provided.

### Reliance on Materials and Information

The findings and results presented in reports prepared by Cambium are based on the materials and information provided by the client to Cambium and on the facts, conditions and circumstances encountered by Cambium during the performance of the work requested by the client. In formulating its findings and results into a report, Cambium assumes that the information and materials provided by the client or obtained by Cambium from the client or otherwise are factual, accurate and represent a true depiction of the circumstances that exist. Cambium relies on its client to inform Cambium if there are changes to any such information and materials. Cambium does not review, analyze or attempt to verify the accuracy or completeness of the information or materials provided, or circumstances encountered, other than in accordance with applicable accepted industry practice. Cambium will not be responsible for matters arising from incomplete, incorrect or misleading information or from facts or circumstances that are not fully disclosed to or that are concealed from Cambium during the provision of services, work or reports.

Facts, conditions, information and circumstances may vary with time and locations and Cambium's work is based on a review of such matters as they existed at the particular time and location indicated in its reports. No assurance is made by Cambium that the facts, conditions, information, circumstances or any underlying assumptions made by Cambium in connection with the work performed will not change after the work is completed and a report is submitted. If any such changes occur or additional information is obtained, Cambium should be advised and requested to consider if the changes or additional information affect its findings or results.

When preparing reports, Cambium considers applicable legislation, regulations, governmental guidelines and policies to the extent they are within its knowledge, but Cambium is not qualified to advise with respect to legal matters. The presentation of information regarding applicable legislation, regulations, governmental guidelines and policies is for information only and is not intended to and should not be interpreted as constituting a legal opinion concerning the work completed or conditions outlined in a report. All legal matters should be reviewed and considered by an appropriately qualified legal practitioner.

### Site Assessments

A site assessment is created using data and information collected during the investigation of a site and based on conditions encountered at the time and particular locations at which fieldwork is conducted. The information, sample results and data collected represent the conditions only at the specific times at which and at those specific locations from which the information, samples and data were obtained and the information, sample results and data may vary at other locations and times. To the extent that Cambium's work or report considers any locations or times other than those from which information, sample results and data was specifically received, the work or report is based on a reasonable extrapolation from such information, sample results and data but the actual conditions encountered may vary from those extrapolations.

Only conditions at the site and locations chosen for study by the client are evaluated; no adjacent or other properties are evaluated unless specifically requested by the client. Any physical or other aspects of the site chosen for study by the client, or any other matter not specifically addressed in a report prepared by Cambium, are beyond the scope of the work performed by Cambium and such matters have not been investigated or addressed.

### Reliance

Cambium's services, work and reports may be relied on by the client and its corporate directors and officers, employees, and professional advisors. Cambium is not responsible for the use of its work or reports by any other party, or for the reliance on, or for any decision which is made by any party using the services or work performed by or a report prepared by Cambium without Cambium's express written consent. Any party that relies on services or work performed by Cambium or a report prepared by Cambium without Cambium's express written consent, does so at its own risk. No report of Cambium may be disclosed or referred to in any public document without Cambium's express prior written consent. Cambium specifically disclaims any liability or responsibility to any such party for any loss, damage, expense, fine, penalty or other such thing which may arise or result from the use of any information, recommendation or other matter arising from the services, work or reports provided by Cambium.

### Limitation of Liability

Potential liability to the client arising out of the report is limited to the amount of Cambium's professional liability insurance coverage. Cambium shall only be liable for direct damages to the extent caused by Cambium's negligence and/or breach of contract. Cambium shall not be liable for consequential damages.

### Personal Liability

The client expressly agrees that Cambium employees shall have no personal liability to the client with respect to a claim, whether in contract, tort and/or other cause of action in law. Furthermore, the client agrees that it will bring no proceedings nor take any action in any court of law against Cambium employees in their personal capacity.

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