

July 8, 2022

Attention: Joan Yu  
Alberta Utilities Commission  
Eau Claire Tower  
1400, 600 Third Avenue SW  
Calgary, AB T2P 0G5

SLR Project: AUC Rule 012 Review

Client Reference No.: Bulletin 2022-08

**RE: Review of AUC Rule 012: Noise Control**

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SLR Consulting (Canada) Ltd. (SLR) is pleased to provide the following comments on the potential changes to the Alberta Utilities Commission (AUC) Rule 012: Noise Control. SLR appreciates the opportunity to continue to be involved in the updates to this important Rule.

Overall, SLR finds the overall direction of the changes proposed by the AUC encouraging, as the majority are aimed at clarifying requirements or edits to improve the format of the Rule and provide consistency. However, we have found the opportunity for some further improvements to clarity and some potentially confusing or contradictory sections.

SLR will divide its comments into two sections: editorial comments and general comments for discussion/review.

## Editorial Comments

- Table 5. It is recommended the title for the Table be revised to say, "**Noise Sound measurement specifications for ~~wind turbine project comprehensive sound level~~ monitoring**". This Table is not specific to just wind turbine projects.
- Table 6. It is recommended the title for the Table be revised to say "**Information requirements for wind turbine monitoring**". Added words to make it more descriptive.

## General Comments for Discussion/Review

Many of the comments in this section would require additional consultation and are not recommended as changes unless the AUC completes that additional consultation with all stakeholders.

### Distance to a Heavily Travelled Road for Category 2 and Category 3 Dwellings

SLR notes that the BC Oil & Gas Commission (BCOGC) updated their British Columbia Noise Control Best Practices Guideline (the Guideline) to version 2.2 in July 2021. Part of that update was to revise the definitions for Category 2 and Category 3 Proximity to Transportation in the Guideline's Table 1 – Basic

Sound Levels for Nighttime (virtually identical to Table 1 in Rule 012). The Category 2 definition was revised to read “dwelling units more than 100 metres but less than 500 metres from heavily travelled roads and/or rail lines and not subject to frequent aircraft flyovers” (emphasis added by SLR). Similarly, the definition for a Category 3 dwelling was revised to read “dwelling units less than 100 metres from heavily travelled roads and/or rail lines and/or subject to frequent aircraft flyovers” (emphasis added by SLR). The BCOGC has revised the distance from 30 metres to 100 metres, based upon a highway sound monitoring and modelling study commissioned by the BC Oil and Gas Research and Innovation Society.

SLR only brings this up so that consistency could be maintained between the similar noise impact assessment (NIA) regulations in Alberta and BC and is not taking a position on whether this change from 30 metres to 100 metres is technically defensible. SLR would only recommend this issue be reviewed if the Alberta Energy Regulator was willing to also review their Directive 038: Noise Control regulation and ensure consistency between the 2 noise regulations in Alberta.

### **Other Types of Noise Receptors**

SLR recommends that additional clarification be added to what constitutes a “non-dwelling receptor”. SLR suggests that the definition for a non-dwelling hypothetical receptor include something like “any point within 1.5 km from the facility property boundary reasonably suitable for habitation.” The purpose of this clarification would be to avoid placing hypothetical receptors on water bodies, mineral or energy leases, within non-energy industrial facilities, on pipeline ROWs, roads, etc.

SLR also notes that the definition in the Glossary only provides the example of a site of ceremonial or cultural significance, while the Revisions Overview document includes the additional example of sites of seasonal occupation. It could cause some confusion if the intent is to evaluate seasonally occupied dwellings on a case-by-case basis per the Overview.

As well, SLR can foresee some issues regarding the consideration of these other, ceremonial, or cultural non-dwelling receptors. If they are only to be evaluated for compliance based upon request of an interested or potentially aggrieved party rather than proactively requiring review of such sites during the earliest possible consultation phase, then they could easily be missed by an acoustical consultant following the requirements of the Rule. Requests for consideration of sites coming in after approval of license or after construction or operation commences could result in unnecessary delays, costs for retrofit mitigation, or the impossibility of compliance due to proximity of the receptor to the facility.

### **New Facility Types**

SLR believes there is a possibility for crypto-mining or data centres to be an emerging facility type that is not currently explicitly addressed within Rule 012 as a facility that will require an NIA. Recent rulings by the AUC have found that licensees are responsible for controlling the sound from these facilities under Rule 012. Applicants might only mention or know to mention power generation equipment associated with these facility types, and even be confusingly directed by Rule 007 and Rule 012 to complete flowchart/summary/checklist applications where the overall sound from crypto mining or data centres (chiefly cooling systems and fans) may not be considered.

Additionally, crypto facilities without on-site power generation (or located near power generation or co-generation facilities) might not technically require an AUC license, adding to the grey area and general confusion.

## NIA Flowchart, NIA Summary Form

SLR finds the Flowchart introduced in the revision to be a welcome addition to determine the appropriate course of action for low-risk facilities and when it is valid to apply the “no net increase” approach. There seems to be some contradictory guidance in the body of the document, where it is explained that the Flowchart only applies to Rule 007 exempt facilities (Subsection 3.1.2), yet determination of eligibility for use of a Summary Form NIA (Subsection 3.1.3) is effectively and logically defined in the Flowchart. SLR believes a valid and less confusing approach would be to recommend the Flowchart is followed by licensees (or their qualified acoustic consultant) as a first cut in determining the required level of NIA analysis and reporting.

The Flowchart itself would require only minor modifications for this approach, such as clarification that in cases where a Rule 007 facility meets either the 3+ dBA below PSL or  $\leq 0.4$  dBA above PSL no-net-increase criteria, then a Summary Form can be filed in place of a full NIA.

In any case, one other issue with clarity of the Flowchart stands out: in cases where dwelling-type receptors (or other types of non-hypothetical receptors) are located within the near field of the facility, and a computer sound propagation model is needed, then it makes sense to simply end that branch of the chart at requirement of a full NIA as one will have to be commissioned at that point anyways.

Section 3.1 (2)(a) states “When a facility is exempt from the requirement to file a Rule 007 application or is eligible to file a Rule 007 checklist application the facility must still comply with Rule 012 permissible sound levels. In these cases, a proponent may complete an Appendix 9 – Noise impact assessment flowchart to determine if a NIA is required.” Then Section 3.1 (2)(b) states “Preparation of a noise impact assessment may be avoided in cases where the **noise impact from a facility is expected to be minimal.**” For an exempt facility or a facility eligible to file a **checklist application**, the NIA flowchart provides objective criteria for determining if impacts are expected to be minimal. It is difficult to defend when a project is “expected to be minimal” as the statement lacks clear direction. When such statements are presented in regulations, it often becomes a roadblock for proponents to navigate as this is an opinion. SLR recommends providing a clear indication of when NIA’s are not required.

A flowchart type of tool for determining when the “no net increase” approach can be used would also be of interest for SLR. Section 3.1 (3)(b) states a noise summary form may be used when...“it is **not practical or efficient to characterize baseline sound levels** and the proposed facility qualifies to use the “no net increase” approach in Section 2.9. Clarification on “not efficient” should either be removed or clarified, as this is an opinion that could easily be rebutted in court.

The overall idea of a flowchart is an effective way to bring clarity in determining the level of effort required to meet compliance; however, more iterations and review are suggested.

## Checklist Application

Section 3.2.1 (b) introduces a checklist application. It is unclear if this is an additional application under Rule 012 or if it is in reference to Rule 007’s checklist applications.

## Determination of PSL and Ambient Sound Levels in Urban Areas

Utility providers in Alberta have facilities within urban settings that require compliance with Rule 012. Since the grandfathering option was removed, SLR is aware that this has led utilities to perform extensive NIAs to show compliance with the Rule for the smallest upgrades to substations. This can cost the utility time and money, which is a cost passed onto the rate payer. SLR recommends a clear approach (no net

increase, A2 Adjustment) or ambient sound level for urban environments to support instances where a facility lies within an urban area.

### **Comprehensive Sound Level**

Section 4.6.1 (1) States “When ordered to do so by the Commission as a condition in the approval; or **in response to a noise complaint and when directed by the Commission**, a licensee must conduct a post-construction comprehensive sound level survey.”

In the past, there have been instances where a noise complaint was not filed with the Commission, but a complaint was brought to the attention of the licensee only. In these instances, the licensee must work with the complainant to rectify the issue. The above statement addresses formal complaints but does not apply to informal complaints. Is the Commission expecting licensees to direct a complainant to the Commission in all complaint instances? If so, then SLR suggests adding a statement regarding all complaints going through the Commission, to the Rule.

### **Noise Impact Assessment Requirements: Cumulative Effects of Adjacent Facilities**

With the understanding that some paragraphs of the proposed Rule 012 document were deleted to increase efficiency (per Topic 2.1 of the Revisions Overview document), SLR finds that removal of paragraphs explicitly stating the requirement to assess adjacent facilities from the body of the report to be a significant and risky omission. Proactively assessing cumulative noise impacts is critical to planning facilities, with proximity being the one of the main factors in sound levels experienced at receptors, and determining compliance often requires detailed assessment of adjacent facilities.

This requirement to consider cumulative effects is also relatively unique to Western Canada among North American NIA regulations, and perhaps deserves more emphasis in the body of the document rather than requiring the reader to reference the appendices to fully realize the implications of the definition of Cumulative Sound Level.

### **Noise Measurement: Combining samples, multiple nights of monitoring**

SLR finds that removal of the statistical method is a good step towards simplifying Rule 012. However, there is still some potential for confusion. In Subsection 4.1.4, “samples” are not defined. As well, it seems contradictory to allow combination of data of multiple day or night periods, yet in Subsection 4.4.6 the worst-case (highest nighttime  $L_{eq}$ ) is compared to the PSL and becomes the CSL. Finally, it is unclear if only the minimum 3-hour period of representative conditions, whether combined from multiple samples that are within  $\pm 3$  dBA or from the worst-case single day or night becomes the nighttime  $L_{eq}$  and CSL.

### **Contradictory use of noise and sound**

SLR recommends that Rule 012 be reviewed and updated to remove references to the term “noise” in the context of measurement and description of sound emissions. The term “noise” is subjective, and “sound” should be used in most, if not all instances.

Yours sincerely,

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