

Section #	Comments	AUC Response to Comments
1.0	<p><b>NaturEner Energy Canada Inc.</b> No further comments.</p>	
1.1	<p><b>NaturEner Energy Canada Inc.</b> NaturEner agrees with the definition of "dwelling" in the Rule 12 Version 3 draft to include nursing homes and hospitals. Also, as previously noted, NaturEner would not suggest including transitory or migratory receptors such as livestock, wildlife (see 20.1 &amp; 20.2) or transitory portable dwellings such as tents or recreational vehicles (unless located in approved areas specifically set aside for such use).</p>	<p>The purpose of the rule is explicit and does not include livestock, etc. The term temporary dwelling is replaced with "seasonally occupied dwelling" and it is addressed in Appendix 1 - Glossary.</p>
1.2	<p><b>AltaLink Management Ltd.</b> The section has been clarified to apply to "temporary" facilities. AltaLink suggests that "temporary" should be defined in the Glossary, and that the definition should be that "temporary" facilities are those intended to be in service for a period of more than 30 days, but which are not intended to be permanent.</p>	<p>Reference to temporary facilities has been removed and temporary noise generating activities is defined.</p>
1.2.1	<p><b>TransAlta</b> <u>Rule Application:</u> We suggest defining "temporary" facility for clarity. For consistency perhaps this could follow EUB Directive 038: Noise Control: "Any facility that will be in operation less than 60 days." <u>Purpose of Rule:</u> We suggest replacing "other noise sources" with "other Energy-Related Facilities". <b>AltaLink Management Ltd.</b> The purpose of the Rule has been clarified to apply to noise from a facility "cumulatively with <i>other</i></p>	<p>Change made to Rule 012, Section 1.2: <b><i>"1.2 Purposes of rule</i></b> <i>The purpose of this rule is to ensure that noise from a facility, cumulatively with other noise sources, does not exceed the permissible sound level (PSL) calculated in accordance with this rule.</i></p> <p><i>The rule provides a process to evaluate noise complaints relating to a facility."</i></p> <p>Section 1.2 contains a general statement that appears correct – "cumulatively with other noise sources" is an accurate statement as 'other sources' includes ambient noise as well as noise from energy-relates facilities.</p>

	<p>noise sources" (emphasis added). AltaLink suggests that "other noise sources" should be defined in the Glossary to provide guidance on the noise sources that should be considered.</p>	
1.3	<p><b>ATCO Structures &amp; Logistics Ltd.</b> The change from "fence line" to "property" implies to me that a stakeholder now has the ability to purchase additional land in order to push out the compliance receptors. Is this the intent of this change?</p> <p><b>Stantec Consulting Ltd.</b> In relation to the PSL requirement of <b>40 dBA at 1.5 km boundary</b>, should there be consideration for proximity to transportation (i.e. 1.5 km boundary along a heavily traffic highway)? <i>"Where a dwelling is built within 1.5 km of an existing facility, the PSL for the new dwelling will be the greater of the existing noise level at the <b>time of construction</b> or the PSL as calculated in Section 2."</i> should indicates that construction noise is not included.</p> <p><b>AltaLink Management Ltd.</b> For clarity AltaLink suggests that the third paragraph of this section have the following phrase added: "... noise is measured at a distance of 15 metres <i>(in the direction of the proposed facility)</i> from the nearest or most impacted dwelling ..."</p>	<p>Using the term 'facility property' is intended to ensure requirement is applicable in a broader range of circumstances. Promoting the expansion of facility property is not the intent of the change.</p> <p>Proximity to transportation is not a factor when there are no dwellings affected by noise.</p> <p>Change made to Rule 012, Section 2.1 (1): <i>"The PSL is determined for the nearest or most impacted dwelling within 1.5 kilometres (km) from the boundary of the facility property and is the value assigned to that dwelling,..."</i></p>
1.4	<p><b>AltaLink Management Ltd.</b> For consistency of phrasing between the three paragraphs of this section, AltaLink suggests the following additions to the second and third</p>	<p>The Commission agrees with adding clarity to this provision.</p> <p>Change made to Rule 012, Section 2.3:</p>

<p>paragraphs: “A licensee must keep documentation of communication between the licensee and a person proposing to build <i>a dwelling</i> near the facility <i>property</i> and a copy ...”  “Where a dwelling is built within 1.5 km of an existing facility <i>property</i>, the PSL for ...”</p> <p><b>Shell Canada Energy</b>  Shell requests that the wording of Section 1.4 be amended to include facilities that are approved by the AUC, but not yet constructed. It is important for licensees to be able to construct the facility as approved by the AUC, particularly in the case of large wind power projects. Based on the AUC’s currently proposed wording for Section 1.4, a new dwelling built after AUC approval but before the facility is built may force a wind power project licensee to resubmit applications or amendments to the AUC to approve new wind turbine sites or build its project with less wind turbine sites, thereby reducing the size and ultimate energy output of the project.  Shell’s preference is for the rule to include the following wording (shown in bold text):  <i>Where a dwelling is built within 1.5 km of an existing <b>or approved</b> facility, the PSL for the new dwelling will be the greater of the <b>noise level coming from the existing or approved facility</b> or the PSL as calculated in Section 2.</i></p> <p><b>NaturEner Energy Canada Inc.</b>  NaturEner suggests Section 1.4 should be applicable to both existing and proposed facilities (with proposed facilities as defined in the Rule 12</p>	<p><del>When requested, a licensee must communicate existing noise levels to a person proposing to build near a facility, using existing noise survey data or modeling data extrapolated to the proposed building site.  A licensee must keep documentation of communication between the licensee and any person proposing to build near the facility.  Where a dwelling is built near an existing facility, a licensee must comply expeditiously with the requirements of this rule once it is aware that new dwelling will result in the facility exceeding the permissible sound level stipulated in section 1.3.</del></p> <p><i>“When a licensee is notified that a person is proposing to build a dwelling within 1.5 km of the boundary of the facility property, the licensee must communicate existing noise levels to that person. Where a noise impact assessment for the facility exists, the licensee shall provide it to that person. In the alternative, the licensee may provide the existing noise survey data or modeling data extrapolated to the proposed building site.</i></p> <p><i>A licensee must keep documentation of communication between the licensee and a person proposing to build a dwelling within 1.5 km of the boundary of the facility property including a copy of the noise impact assessment or other data provided to that person.</i></p> <p><i>Where a person builds a dwelling within 1.5 km from the boundary of an existing or proposed facility, the PSL at the new dwelling from the existing or proposed facility, measured at the new dwelling, will be the greater of the existing noise level at the time of construction of the new dwelling, or the PSL as calculated in Section 2.”</i></p>
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	Version 3 draft). Also, suggest clarifying the suggested sentence to read: "If a new receptor is constructed within 1.5 km of an existing or proposed facility, the PSL at that new receptor will be the greater of the predicted or existing noise level at the time of construction of the new receptor, as applicable."	
2.0	<p><b>NaturEner Energy Canada Inc.</b></p> <p>As previously noted, a phased implementation schedule would minimize development disruption and rework, and establish clear expectations. However, any applications filed before the effective date of the revised AUC Rule 012 should be reviewed under the current version of AUC Rule 012. Noise analysis modeling work associated with a particular project is completed prior to application filing and any implementation schedule that contemplates applying a revised AUC Rule 012 after application filing may require remodelling and/or redesign of the proposed facility.</p>	The implementation schedule for AUC rules takes into consideration work in progress while the rule is under revision. Within the time limits to be specified in the bulletin announcing release of a revised AUC Rule 012: <i>Noise Control</i> , applicants will be able to submit noise impact assessments conducted in accordance with the rule in effect at the time the assessments were conducted.
2.1	<p><b>Patching Associates Acoustical Engineering (PAAE)</b></p> <p>(6.) Class B adjustments are values intended to permit adjustments to the BSLs based upon people's responses to temporary noise generating activities which <b>are activities that occur no more than once every 12 months and last 60 or less days.</b> In order to use this adjustment, the licensee must fully inform the potentially-impacted residents of the duration and character of the noise.</p>	No response needed.

	By placing the emphasis on the criteria that the activity may only occur once in a year, this removes the question whether a monthly test would qualify for a Class B adjustment. This was a question that has arisen about the Class B adjustment for quite some time.	
<b>2.1 (3)</b>	<b>Stantec Consulting Ltd.</b> For Category 2 and 3 receptor/residence located in close proximity to a heavily traffic road AND a rail line AND frequent aircraft flyovers, the current adjustment method may not be representative in cases where all three factors coexist. Would the Commission consider applying the adjustment cumulatively for road, rail line, and aircraft flyovers.	Where Table 1 is not applicable, and non-energy-related noise sources are involved, an application for a A2 adjustment may be filed.
<b>2.1 (5) b</b>	<b>RWDI Consulting Engineers &amp; Scientists</b> The added text to this section clearly indicates that the application for A2 adjustment must include supporting data but the text in paragraph b. Of this section implies that a background survey is still optional. The specific data requirements for an A2 adjustment application should be listed.	Ambient noise survey are not optional, however, the Commission agrees that reference to background survey in the rule may lead to confusion and has been deleted.  Suggested deletion to Rule 012: Section 2.1 (5)(b): <del>Licensees may conduct a background survey to determine the total noise levels that currently exist in an area for information purposes, such as energy related industry, non-energy industry, and transportation</del>
<b>2.1.5.c</b>	<b>Patching Associates Acoustical Engineering (PAAE)</b> says that ambient sound surveys and comprehensives must be done under “representative” conditions. Yet the definition of “Representative Conditions” in Appendix 1 basically states that it does not mean the quietest time for an ambient and it also does not mean that it is the worst-case or exact conditions the complainant has highlighted for comprehensives. Isn’t this just “kicking the can down the road” in terms of	Representative does not mean worst case or best case in terms of noise generation. In CSL, representative means the facility operating, meteorological atmospheric conditions under which a noise complaint is lodged.

	defining the right conditions to measure under?	
2.3.2	<p><b>Patching Associates Acoustical Engineering (PAAE)</b>  is an interesting change from previous. This basically says that a complaint against a deferred facility results in the facility having to meet its deferred PSL as long as it has been formally set. Previously, once a complaint was filed, the deferred PSL was tossed and a new PSL determined based on the calculation.</p>	No response required.
2.3 (4)	<p><b>Capital Power Corporation</b>  <u>Proposed Change:</u> A deferred facility licensee must ensure that the introduction of a new noise source to the deferred facility does not result in an increase in PSL.</p>	<p>While the Commission agrees, a slightly different wording has been applied.</p> <p>The PSL is not affected by the introduction of additional noise sources in the circumstances described. A deferred facility licensee must ensure that the introduction of a new noise source to the deferred facility does not result in an increase in total noise generated.</p> <p>Change made to Rule 012: Section 2.2 (3):  <i>"...However, a licensee must reduce noise from a deferred facility to make room for the introduction of new noise sources at the facility so that there is no increase in total noise at the nearest or most impacted dwelling."</i></p>
2.3 (5)	<p><b>TransAlta</b>  <u>PSL Determination for pre-1988 facilities:</u> With regard to the statement "...must demonstrate compliance with the PSL as defined in Section 2.1", we suggest the addition of "if applicable" at end of this statement.</p>	The PSL is applicable except in the rare circumstance where facilities are in close proximity and there are no dwellings in the area between the facilities as illustrated in Appendix 5 – Example 3. It is not intended to suggest that the PSL may be compromised when a dwelling is affected by noise and, therefore, a change to the text is not warranted.
2.4	<p><b>Patching Associates Acoustical Engineering (PAAE)</b>  is completely new. New facilities near deferred facilities can use a deferred PSL.</p>	Yes, facilities built near a deferred facility may use the PSL of the deferred facility only while the deferred facility is operating, and only until October 17, 2018.
3.0		
3.1	<p><b>NaturEner Energy Canada Inc.</b>  See comments to 3.0.</p>	The Commission requires submission of a complete NIA except for small power plants, substations, transmission

	<p><b>Patching Associates Acoustical Engineering (PAAE)</b> is different than D38. All applications must come with an NIA as an attachment. D38 only requires NIA submissions for non-compliant facilities.</p>	<p>lines as specified in the latest version of AUC Rule 012 3.2(2).</p>
<p><b>3.1 (4) and Definition</b></p>	<p><b>TransAlta</b> <u>Prep of a NIA:</u> With regard to the reference to including impacts from a "proposed" facility we suggest the glossary definition of a proposed facility state that an application has been submitted and deemed complete by the AUC but is not yet...."</p> <p><b>Stantec Consulting Ltd.</b> <i>"If the existing noise levels are higher than the PSL (only for deferred facilities where no complaints have been received), the applicant must ensure that its facility will not cause an <b>increase</b> in Leq sound levels." When two sound levels are added logarithmically, there is an arithmetic increase in the result. Is it possible to quantify the term "increase" (+/- 0.5 dBA)?</i></p>	<p>Proposed facility" definition has been revised in Appendix 1 Glossary</p> <p>As the PSL is always a whole number, comparison of measured noise levels are rounded off to the nearest whole number and compared to the permitted PSL.</p>
<p><b>3.1 (3)</b></p>	<p><b>Shell Canada Energy</b> Shell suggests that, given the changes made to Section 1.4, the following wording (shown in bold text) be added to the start of Section 3.1 (3): <b>Subject to Section 1.4</b>, if a noise complaint is filed by a resident near the facility after the facility is in operation, the licensee must meet the PSL as determined in accordance with Section 2.</p>	<p>The Commission agrees.</p> <p>Change made to Rule 012, Section 4.1(1) <del>3.1 (3) As part of its public consultation for the proposed facility in an area, an applicant must discuss noise impacts of the proposed facility with nearby area residents and design the facility to meet the PSL.</del> <del>3.1 (4) If a noise complaint is filed by a resident near the facility after the facility is in operation, the licensee must meet the PSL as determined in accordance with section 2.</del></p> <p><i>"If a noise complaint is filed by a resident of a dwelling near the facility after the facility is in operation, the licensee must meet the PSL as determined in accordance with Section 2. This section does not apply where the</i></p>

		<p><i>resident is the person who constructed a dwelling under the circumstances set out in Section 2.3.”</i></p> <p>Section 2.3 third paragraph states:  <i>“Where a person builds a dwelling within 1.5 km from the boundary of an existing or proposed facility, the PSL at the new dwelling from the existing or proposed facility, measured at the new dwelling, will be the greater of the existing noise level at the time of construction of the new dwelling, or the PSL as calculated in Section 2.”</i></p>
3.1.2	<p><b>Patching Associates Acoustical Engineering (PAAE)</b>  should include ‘1500 m’ in the statement.</p>	<p>The Commission agrees.</p> <p>Change made to Rule 012, Section 2.1(1):  <del>(1) The PSL is determined for the nearest or most impacted dwelling(s) within 1.5 km from the facility and is the value assigned to that dwelling unit.</del></p> <p><i>“The PSL is determined for the nearest or most impacted dwelling within 1.5 kilometres (km) from the boundary of the facility property and is the value assigned to that dwelling, or if there are no dwellings within 1.5 km from the facility property, then the PSL of 40 dBA is applicable at 1.5 km from the facility property...”</i></p> <p>Change made to Rule 012, Section 3.1(2):  <i>“... or most impacted dwelling or if there are no dwellings within 1.5 km from the facility property, then the PSL is applicable at 1.5 km from the facility property.”</i></p>
3.2	<p><b>Stantec Consulting Ltd.</b>  In the last paragraph "submit reasons why the measures proposed to reduce the impacts are not practical.", it is our opinion that a noise attenuation measure should not be proposed if it is not practical. The non-practicality of a noise measure is an indication that other alternatives should be considered (i.e. modified operation condition).</p>	<p>The Commission agrees that, with the temporary exception of deferred facilities, noise mitigation is required in every instance where a proposed facility is predicted not to comply with the PSL. The Commission may consider unique circumstances where noise mitigation is not practical and will be considered by the Commission on a case-by-case basis.</p>
3.2	<p><b>NaturEner Energy Canada Inc.</b>  (In regard to facility property boundary changes)</p>	<p>The existing noise level is the PSL for a new dwelling only if it is built after, and in proximity to, an existing energy-related facility. Facility property boundaries are considered only when predicting noise in areas where</p>

	The PSL at an affected dwelling should be the greater of the existing sound level or the PSL as permitted in Rule 12.	no dwellings will be affected by that noise. Expansion of a facility property does not affect the PSLs of existing dwellings.
3.2 (1)	<b>AltaLink Management Ltd.</b> For clarity on when an assessment is required AltaLink suggests this section be modified as follows: "... will be emitting <i>continuous</i> sound once constructed."	The Commission does not agree as noise from some facilities, such as peaking units and wind turbines, may be intermittent.
3.2 (2) FROM Bulletin 2011-07	<b>RWDI Consulting Engineers &amp; Scientists</b> The use of a summary form for small generators or transformers is a good approach to streamlining approvals for these types of projects. However, the requirements of the proposed summary form do not necessarily streamline the requirements for noise impact assessment. The detailed modeling would still be required, particularly if there are other energy-related facilities resulting in cumulative effects or if the initial analysis indicates that mitigation may be required. In both these cases, we feel there would be an increased likelihood of information requests from the AUC for more detail in order to assess a project. To provide applicants with a better estimate on project approval schedules, it would be more appropriate to simplify the Summary form to focus on the facility compliance only, using the presence of cumulative effects or need for mitigation to trigger a more detailed NIA where the need for IRs could be avoided.	As indicated in the revised Section 3.2 (1) provided with Bulletin 2011-07, all facility applications governed by AUC Rule 012, must conduct a noise impact assessment. The Appendix 3 – Noise Impact Assessment Summary Form is intended to simplify the reporting of that assessment for the specified facility types where the PSL in AUC Rule 012 will obviously be met.  The AUC acknowledges that additional information requests may be required for applications using the Appendix 3 – Noise Impact Assessment Summary Form. In cases where the expected noise is within the margin of 3 dBA to the PSL, a detailed Noise Impact Assessment is required.
3.3	<b>TransAlta</b> Comparing predicted noise level to the PSL: We suggest to either remove or replace the wording	Change made to Rule 012, Section 3.3 - add second paragraph as follows: <i>"The predicted sound pressure level for a facility operating intermittently such as wind turbines or peaking units,</i>

<p>"For intermittently.....or nighttime period" with the text found in 3.5(3): "The predicted sound pressure .....or daytime period" which provides better clarity.</p> <p><b>Stantec Consulting Ltd.</b>  <i>"For intermittently operated permanent equipment or facilities (e.g. wind turbines, peaking units), predictions used for comparison to the PSL are evaluated for the duration of equipment operation and not on the <b>short term duration</b> averaged over the entire daytime or nighttime period."</i> More guidance is required for the noise assessment of start-up, shutdown, bypass, or normal operation of a power generation peaker plant. Should the assessment consider the maximum prediction sound level (Lmax) or the time-weighted sound level (Leq, operating time period) during the particular operation mode as the level may vary throughout the operation. Example or guidance on how to quantify the beginning and end of a short term duration may be helpful.  In steady state operation, the sound level will fluctuate and Leq daytime and nighttime approach provide an energy average method to quantify the fluctuating noise emission.</p> <p><b>Patching Associates Acoustical Engineering (PAAE)</b>  "A dwelling may have only one PSL". This is not true. A dwelling will have a <u>daytime</u> PSL and a <u>nighttime</u> PSL.</p>	<p><i>is calculated based on noise generated for the duration of the operation. The calculation must not be an average of the entire nighttime or daytime periods if the facility does not operate for the entire period."</i></p> <p>Rule 012 requires assessment of noise under normal operating conditions.</p> <p>The Commission agrees that a dwelling has two PSLs.</p> <p>Change made to Rule 12, Section 3.3 - first paragraph last sentence:  <i>"A dwelling may have only one nighttime and one daytime PSL."</i></p> <p>Start-up, shut-down and blow-downs are not normal operations and are not included when assessing noise. If an emergency occurs, then work may be done without notification. If planned, then notification must be done.</p>
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	<p><b>RWDI Consulting Engineers &amp; Scientists</b></p> <p>The added clause implies that during a short (less than one hour) venting event or start-up and shut-down, the PSL must be met. However the basis for the Rule and original Directive is the <math>L_{eq}</math> which is a time based indicator. What will the AUC use as the compliance time basis for short events? If a source runs for 10 minutes, exceeding the PSL for those 10 minutes but is compliant on an hourly or day/night period basis with the facility in normal operation over that time period, is mitigation required? The statement added to the Rule implies that there is no normal variability in sound generated from industrial facilities, which is not realistic. We suggest that preferred time averaging periods be specified and the specific types of sources to which this statement applies be listed.</p>	
3.4 (1)	<p><b>Stantec Consulting Ltd.</b></p> <p>In the simplified method of reducing six dBA per doubling of distance, ground condition (i.e. hard, porous) and the definition of flat ground (i.e. +/- 1.5 m) is not specific. Further clarification may be helpful.</p> <p><b>RWDI Consulting Engineers &amp; Scientists</b></p> <p>Would applicants always know, or could they find out, what is proposed by others?</p>	<p>The simplified method of predicting noise is applicable only when proposed facilities obviously meet the assumptions inherent to that method. If factors like ground attenuation or porosity are believed to significantly affect the outcome of the prediction then a noise model that takes those factors into account must be used. Applicants can view NIAs of applications previously submitted to the AUC and ERCB.</p>
3.4.5	<p><b>Patching Associates Acoustical Engineering (PAAE)</b></p> <p>Cumulative impacts and using the overlapping 1500 m radii. "...compliance with the PSL in the overlapping portion is not evaluated". As we have encountered many times before, what happens when there are several facilities, there are several</p>	<p>The 'no net increase' approach described in Appendix 6 – Example 3 may be applied where energy-related facilities are built in proximity to each other.</p> <p>In regard to replacing the word "specific" with "appropriate", in the context of that sentence, disclosure of the specific wind speed and direction used in the model is required and, therefore, the word specific has not been changed.</p>

overlapping radii and no un-overlapped portion?

**ATCO Structures & Logistics Ltd.**

I think the addition of this section definitely brings some clarity to what procedures should be followed in the scenario where two or more facilities exist in an area where there are no receptors. However, I believe it may lead to an unintended circumstance where a proposed facility is potentially ringed by other energy-related facilities (especially if we consider well sites). In that case, the proposed facility might have their 1.5 km radius entirely overlapping with other radii and the Rule seems to read that their PSLs need not be evaluated at any point.

I recommend that instead of having an area of non-evaluation – the proposed facility should at a minimum meet a PSL of 40 dBA (contribution plus ambient) at 1.5 km in the overlapping areas as if no other facilities were present.

**RWDI Consulting Engineers & Scientists**

In Section (1), last bullet, we suggest replacing the word “specific” with “appropriate”. The word “specific implies that the AUC requires a particular wind condition be considered, rather than the range of conditions described in the Rule.

Urge removing the word “topography” from under Sub-heading (2), last bullet; and moving it to Sub-heading (1), under “Considerations must be given to:” as the last bullet therein. Qualification should be added as in “-topography, where justified without causing excessive and unrealistic screening

<p>3.5 (3)</p>	<p><b>Stantec Consulting Ltd.</b> Please refer to comments for section 3.3.</p> <p><b>Patching Associates Acoustical Engineering (PAAE)</b> Is new. Calculating levels from peaking units are to be calculated based on the time that they are operating and not averaged over the day or nighttime period. This would seem to negate the whole point of the use of the <math>L_{eq}</math> measurement for the daytime or nighttime periods</p> <p>3.8.5 Give map requirements for reporting.</p>	<p>The Commission does not agree. Noise complaints must be investigated under conditions representative of the complaint. Facilities that generate noise for periods of time shorter than the defined daytime and nighttime periods may generate noise complaints. In those instances, the complaint may not be related to the average noise level throughout the entire day or entire night, but rather about the time when the facility is operating. Therefore, it is appropriate to calculate average noise levels only during the period of time that noise is being generated. Averaging noise levels using data when noise is not being generated is not calculating noise under conditions “representative of the noise complaint”.</p>
<p>3.6</p>	<p><b>Stantec Consulting Ltd.</b> In many assessment cases, the spectrum information is typically not available for vendors. Will the Commission consider removing the term "If available"</p> <p><b>RWDI Consulting Engineers &amp; Scientists</b> Replace “noise modeling” with “noise impact assessment”</p>	<p>Sound spectrum data must be provided if it is available, therefore, “if available” in the Rule 012 remains unchanged.</p> <p>“Noise modeling” was changed to “noise model”.</p>
<p>3.7 (2)</p>	<p><b>Stantec Consulting Ltd.</b> <i>"Wind turbine noise must be modeled using wind speeds of six to nine metres per second (m/s) or 21 to 32 km per hour (km/h) to predict a worst-case condition."</i> Recommend changing <i>" six to nine metres per second (m/s) or 21 to 32 km per hour (km/h)"</i> to <i>"worst case/highest noise emission level under the operating wind speed range"</i> . Some turbine manufacturer may have highest noise emission level at rated wind speed</p>	<p>The matter of noise modeling parameters specifically in relation to wind turbines has been deferred to the April 2011 to March 2012 review.</p>

	higher than 9 m/s. In addition, the clarification on the wind speed (i.e. measured at hub high or 10 m) will be helpful.	
<b>3.7.(3)</b>	<b>TransAlta</b> Noise Models: In the event that modeled noise from existing facilities already exceeds the PSL, how will any exceedances be addressed (especially if the predicted noise level at the receptor is only raised by a small increment due to the proposed facility)?	The PSL must be met for all energy-related facilities with the temporary exception of deferred (pre-1988) facilities. When existing noise from non energy-related sources exceeds the PSL, the A2 adjustment may be considered. When existing noise from energy-related sources plus assured ambient noise level exceeds the PSL, the noise from existing facilities must be reduced in order to add any noise predicted from an additional energy-related facility and ensure that the cumulative noise levels meets the PSL.
<b>3.8 (Paragraph 4, Bullets 6 &amp; 7)</b>	<b>RWDI Consulting Engineers &amp; Scientists</b> The meaning behind terrain parameters and reflection parameters should be clarified via examples as is done in the last bullet	Consideration of noise modeling parameters has been deferred to the April 2011 to March 2012 review.
<b>3.8 (1)</b>	<b>AltaLink Management Ltd.</b> To reflect the impact assessment process, AltaLink suggests modifying this section by replacing "identify" with "determine" as follows: <del>"Identify</del> <b>Determine</b> the PSL and the ..."	Changed as suggested.  Change made to Rule 12, Section 3.8 (1), first sentence: <del>"Identify</del> <b>Determine the PSL and the direction and distance to the nearest or most impacted dwelling."</b>
<b>3.8 (4)</b>	<b>Stantec Consulting Ltd.</b> On " <b>ground absorption conditions</b> ", some guidance regarding ground absorption index in different acoustic model setting (Cadna, Predictor, SoundPlan, ENM) will be helpful. The ground absorption index may not have the same effect on the prediction sound level consistently across different software models.	The matter of noise modeling parameters has been deferred to the April 2011 to March 2012 review.
<b>3.8 (5)</b>	<b>Stantec Consulting Ltd.</b> Recommends adding " <b>boundary of facility property</b> " and the " <b>1.5 km criterial boundary</b> " as items to be presented in the study area figure.  <b>Patching Associates Acoustical Engineering (PAAE)</b>	The Commission agrees.  Change made to Rule 12, Section 3.8 (5): <b>" Include a figure, map, area plan or drawing showing the proposed facility property, study area and the nearest or most impacted dwelling(s)..."</b>

	Gives map requirements for reporting.	
4.0	<b>NaturEner Energy Canada Inc.</b> See comments to 3.0 and 3.2.	<b>Response provided in applicable section.</b>
4.1	<b>NaturEner Energy Canada Inc.</b> As previously noted, NaturEner agrees that if a deferred facility is suspended or abandoned, the PSL should revert to that calculated without the pre-1988 facility deferral. Although, additional clarification is needed to define how and when a deferred facility is considered "suspended or abandoned".	Rule 012 does not refer to the phrases "suspended or abandoned" but instead states in Section 2.4 that the PSL for the deferred facility is applicable only while the facility is operational. Operational means capable of operating.
4.1 (1)	<b>AltaLink Management Ltd.</b> AltaLink suggests the second paragraph be modified as follows: "... <b>this is a condition of operation to ensure that the PSL is met. a licensee must ensure that the PSL is met under this operating condition.</b> "	The Commission does not agree for operating conditions affect the how noise is generated and transmitted not the PSL. The PSL must be met under all non-emergency operating and meteorological conditions under which the facility operates. If specific operating conditions, like operating with all building windows closed were needed to ensure compliance with the PSL in the NIA, then the facility must operate under those conditions for compliance with the PSL is always required.
4.1 (7)	<b>TransAlta</b> <u>Process for CSL Survey:</u> With regard to the requirement that "there must be at least 3 continuous hours...." we suggest you consider "equivalent of a three hour time period" .QC'ing data will necessitate removal of certain data points that don't meet the criteria, rendering the data non-continuous.	The intent of Section 4.1 (7) is to acquire at least three hours of valid noise data during the day and at least three hours of additional valid noise data during the night time period after taking into account the noise removed during isolation analysis. The term 'continuous' is used to convey that after isolation analysis, the noise assessment must represent a three hour time period (for each of the day and night) that is not be disjointed or representative of a much broader time scale.  Change made to Rule 12, Section 4.2 (7) - last sentence: <i>"The 15-metre requirement may be altered if it is physically impossible or <u>acoustically illogical</u>. <del>from an acoustical consideration.</del>"</i>
4.2	<b>RWDI Consulting Engineers &amp; Scientists</b> (Main Paragraph; Line 4) Remove sentence "Due to complexity of determining LFN...".Determining LFN (dBC) is no more complex than determining overall dBA.	The AUC acknowledges this comment has merit, however, change of that paragraph is not warranted at this time. The matter of determining low-frequency noise has been deferred to the April 2011 to March 2012 review.

4.2.1	<p><b>Stantec Consulting Ltd.</b> Please consider referencing the <i>“clear tonal component”</i> by definition in the Appendix.</p>	The matter of whether low frequency noise requires a tonal component has been deferred to the April 2011 to March 2012 review.
4.3	<p><b>NaturEner Energy Canada Inc.</b> In absence of the deferred status expiration, NaturEner suggests that pre-1988 should provide noise level of the facility upon request by a proposed facility/dwelling such that it can be accounted for during the cumulative noise analysis.</p>	Noise impact assessments of AUC-approved facilities are available from the AUC while NIA of ERCB-approved facilities are available from the ERCB.
4.5	<p><b>Stantec Consulting Ltd.</b> An <i>“inversion”</i> is not necessarily a <i>“changing atmospheric condition”</i>.</p>	<p>The Commission agrees that an inversion is not necessarily indicative of a change in atmospheric conditions.</p> <p>Change made to Rule 12, Section 4.6: <i>“changing atmospheric conditions (such as inversions);”</i></p>
4.5 (3)	<p><b>TransAlta</b> <u>Monitoring</u>: With regard to the requirement for "agreement from complainant that survey conditions were appropriate" we assert that the AUC must acknowledge that there may be instances where objector agreement may be unreasonably withheld and a provision that assesses the validity of a complainant's justification for disagreeing with survey conditions should be in place.</p>	The need for the complainant to agree that survey conditions were appropriate in Section 4.5(3) applies only when noise monitoring for a single night is conducted. Where the complainant does not agree that single night monitoring is appropriate, multiple-night monitoring may be used. Similarly when a complainant does not wish to communicate with an licensee, the efforts to communicate with the complainant must be documented. The CSL should be conducted during operating and meteorological conditions that best represent the conditions when the noise complaint was lodged.
4.6 Table 4	<p><b>Stantec Consulting Ltd.</b> Suggests revising <i>“Upwind: less than 5 km/hr limit”</i> to <i>“Upwind: 5 km/hr limit”</i>.</p> <p><b>Patching Associates Acoustical Engineering (PAAE)</b> removes “wind blowing directly to complainant”</p>	<p>The Commission agrees that “less than 5 km/hr” is not a precise limit.</p> <p>Change made to Rule 12, Section 4.7 (1): <i>“If this completed form is not available, Table 4 outlines the <del>recommended</del> favourable noise monitoring conditions.”</i></p> <p>Change made to Rule 12, Section 4.7, Table 4:</p>

	<p>and replaces it with “valid data”. The explicit requirement for downwind conditions is removed, but seems to remain <i>implicitly</i> with statements like “Measurements should be conducted when sounds propagates towards the nearest or most impacted dwelling” (4.6.1). Sound <u>always</u> propagates towards the nearest or most impacted dwellings, but propagates <u>most effectively</u> under downwind conditions.</p>	<p>Table 4. Favourable summertime weather conditions  <b>“500–1,000 m from noise source:</b>  Upwind: 5 km/hr limit  Crosswind: 10 km/hr limit  Downwind: 10 km/hr limit</p> <p><b>Greater than 1,000 m from noise source:</b>  Upwind: less than 5 km/hr limit”</p> <p>The Commission agrees that sounds always propagates toward the nearest dwelling.</p> <p>Change made to Rule 12, Section 4.7 (1):  <del>Measurements should be conducted when sound propagates towards the nearest or most impacted dwelling.</del></p>
<p><b>4.7.2 (3)</b></p>	<p><b>Stantec Consulting Ltd.</b>  “The extraction of data from the measured CSL must be <b>documented</b>”. Additional guidance on specific documentation methods such as a summary table with description of isolated events and marker on the sound level history graph will be helpful.  <i>“Criteria for removing data may include: measurement periods where the monitor is upwind of the source”</i> If the upwind condition complies with favourable summertime weather condition stated in Table 4 (i.e. upwind less than 5 km/hr for distance greater than 1000 m from noise source), should the data be isolated?</p>	<p>The Commission agrees that a summary table would be valuable, but it is not necessary to make tabulation a requirement.</p> <p>The Commission agrees that further clarification regarding noise measurement during upwind conditions is required.  Sections 4.7.2 (1) and 4.7.2 (2) in the previous version of Rule 012 were combined.</p> <p>Change made to Rule 12, Section 4.8.2 (4):  <i>“...measurement periods where the monitor is upwind of the noise source (See Table 4);...”</i></p>
<p><b>5</b></p>	<p><b>TransAlta</b>  <b>Noise Complaints:</b> With reference to “The Commission may conduct random CSL surveys of facilities” we contend that investigations should be triggered by a communicated concern.</p>	<p>The AUC conducts noise surveys to help ensure compliance with AUC Rule 012. The AUC may conduct random CSL surveys of facilities.</p>

6	<p><b>Stantec Consulting Ltd.</b> Will the Commission consider quantitative limits or guidance on construction noise?</p>	<p>Concerns about construction noise are investigated on a complaint basis.</p> <p>Change made to Rule 12 Section 6: <del>(1) Licensees must take the following mitigating measures to reduce the impact of construction noise on nearby dwellings</del></p> <p>(1) <i>“Licensees must manage the impact of construction noise on nearby dwellings. The following mitigating measures should be used:”</i></p>
7.0	<p><b>NaturEner Energy Canada Inc.</b> NaturEner believes that, at a minimum, the Noise Impact Assessment Summary Form should be included in an application if a comprehensive noise impact assessment report is not included that covers all the reporting requirements listed in AUC Rule 012, such that the any future proposed facilities can include the existing facilities in the noise model based on the Noise Impact Assessment Summary Form/ Report for cumulative analysis.</p>	<p>Agreed. The addendum to version 3 of Rule 012, released with Bulletin 2011-07, dated February 15, 2011 provided for streamlined NIA application procedures for smaller facility types.</p>
7.1	<p><b>NaturEner Energy Canada Inc.</b> Please clarify that the maximum noise level of all noise sources, including any intermittent sources, should be listed on the Noise Impact Assessment Summary Form.</p>	<p>With the exception of wind turbines, AUC Rule 012 requires predictions of noise to be made under normal facility operating conditions. Investigations of noise complaints require an assessment of noise during conditions representative of the complaint.</p>
8.0	<p><b>NaturEner Energy Canada Inc.</b> As previously noted, NaturEner agrees that the criteria for when a road is considered to be "heavily travelled" should be clarified and that changes to traffic volume should be allowed to be considered for a revision to the PSL to be applied. NaturEner</p>	<p>The current method for assessing heavily travelled roads is sufficient. Not all numbered highways are heavily travelled nor are all heavily travelled roads numbered highways. Applicants can use noise monitoring data to assess traffic volumes on an area- specific basis.</p>

	suggests using a more straight-forward definition, e.g., consider all provincial highways as "heavily travelled roads", and maintain a list of those on the AUC website, such that it can be easily accessible and used by applicants.	
9.3	<b>NaturEner Energy Canada Inc.</b> NaturEner understands the requirement on outdoor noise (as stated in Section 1.3, "noise is measured at a distance of 15 m from the nearest or most impacted dwelling" for "the purpose of determining compliance with this rule). Please clarify the requirement on indoor noise.	AUC Rule 012 applies to the evaluation of noise outside of a dwelling and does not specifically address in-door noise.
11.0	<b>NaturEner Energy Canada Inc.</b> A Noise Management Plan may be accepted if a comprehensive noise survey is not practical. Should we determine when a comprehensive noise survey is not practical? As previously noted, the applicant should be allowed to make that determination within established guidelines and provide the justification and/or explanation in any resultant report.	It is an extremely rare occurrence that a comprehensive noise survey cannot be conducted, however, the Commission has determined that a Noise Management Plan may be accepted if a comprehensive noise survey is not practical. Where applicable, applicants must provide rationale to the Commission why a comprehensive noise survey is not practical and the Commission will evaluate the merit of those specific circumstances. The Commission expects these circumstances to be rare and will not be providing guidance in that regard.
11.1	<b>NaturEner Energy Canada Inc.</b> In the interests of clarification, NaturEner agrees with the approach.	No response needed.
11.2	<b>NaturEner Energy Canada Inc.</b> NaturEner agrees with Imperial Oil Resources that this issue requires further review.	See response to Imperial Oil.
11.3	<b>NaturEner Energy Canada Inc.</b> Section 5 stated that "the Commission may conduct random CSL surveys of facilities." Please provide more details to the circumstances where such surveys may take place. Please also provide more details to the procedure and responsibilities, e.g. cost, for conducting random	The AUC conducts noise surveys to help ensure compliance with AUC Rule 012. Whether those surveys will be announced to the approval holder in advance will be determined by the Commission on a case-by-case basis.

	CSL surveys. NaturEner suggests AUC to provide advanced notice for arrangement, e.g. private land access permission, to conduct such survey.	
12.0	<p><b>NaturEner Energy Canada Inc.</b>  There appears to be a conflict between the "energy-related facility" definition and the intention of the cumulative analysis to include all noise sources in the model (Section 1.2 and Section 3.4(1)) in Rule 12 Version 3 draft.  Also, as previously suggested, it would be helpful to assist industry to establish consistent and applicable standards during both noise modeling and measurements if a database is maintained to show the licensed/approved facilities with their locations, contacts, and their previously submitted NIA reports.</p>	Section 1.2 contains a general statement that appears correct – “cumulatively with other noise sources” is an accurate statement for ‘other sources’ includes ambient noise as well as noise from energy-related facilities. Section 3.4 (1) contains a more specific statement that that also appears to be correct for it refers to ASL, and noise from existing and proposed energy-related facilities.
12.1	<p><b>NaturEner Energy Canada Inc.</b>  NaturEner agrees that cumulative noise should include all existing and proposed facilities (as defined in Rule 12 Version 3 draft) that were determined at the time of application. As previously noted, NaturEner suggests a database of applications from proposed and existing facilities to be maintained. However, complications to this approach may result. For instance, if multiple facilities are "proposed" within the same area, should the first "proposed" facility need to account for the later "proposed" facilities in the PSL? Also, should the order of priority of the proposed facilities be based on the submission date of the permit application?</p>	<p>Applicants must consider noise from proposed facilities that may affect the subject application taking into account facilities approved but not yet built and facilities for which an application has been submitted, but not yet approved. Previous applications may not always be available on-line but can be obtained by contacting the approving agency.</p> <p>The suggestion to develop a database to facilitate noise control has merit, but the AUC is not, at this time, considering maintaining a database of acoustic information.</p>
	<p><b>NaturEner Energy Canada Inc.</b>  As previously noted, Section 3.4 of Rule 12 requires existing facility to communicate with proposed</p>	Noise impact assessments of AUC-approved facilities are available from the AUC while NIA of ERCB-approved facilities are available from the ERCB. Once a facility application is approved, application details, including NIA, if not available ‘on-line’ can be obtained by directly contacting the approving agency.

	dwelling about existing noise levels using the noise impact assessment of the facility. NaturEner suggests that the licensee should also provide the noise impact assessment along with any background documentation to proposed facilities. In the case when the noise pressure/power levels of the existing facility are not available, please clarify if literature-based values are sufficient.	Where NIA of other facilities are not available, applicants must document efforts to obtain the NIA, and may use published literature-based noise levels citing the source of that information.
15.2	<b>NaturEner Energy Canada Inc.</b> As previously noted, NaturEner suggests AUC to provide more details on measurement procedures and the minimum number of measurement locations, especially for wind projects which involves multiple receptors over a large area.	Additional clarification of noise measurement procedures, particularly for wind turbines, has been deferred to the April 2011 to March 2012 review.
15.3	<b>NaturEner Energy Canada Inc.</b> As previously noted, NaturEner suggests AUC to include typical review time for class A2 adjustment request.	The review time required varies with the quality of the original submission and the volume of other applications also being processed. The Commission will not specify the review schedule.
16.1	<b>NaturEner Energy Canada Inc.</b> As previously noted, In the case where manufacturer can only provide maximum sound power level of equipments, NaturEner suggests to use octave band values obtained from literature or use octave-band values of similar equipment, and adjusted to the applicable maximum sound power level.	Agreed. No response required.
17.0	<b>NaturEner Energy Canada Inc.</b> As previously noted, please consider providing an example on predicting construction noise at a receptor if AUC determines that such calculation should be included in the NIA.	During facility construction, Rule 012 requires applicants to plan for and to reduce the effects of noise on nearby dwellings. Noise impact assessments predict noise under normal facility operating conditions and therefore do not include construction noise. Therefore, an example of predicting construction noise is not required. Complaints about construction noise are addressed on a case-by-case basis.
19.0	<b>NaturEner Energy Canada Inc.</b> As previously noted, if AUC concludes to exempt certain facility types from a full NIA, AUC should	The addendum to version 3 of Rule 012, released with Bulletin 2011-07, dated February 15, 2011 provided for streamlined NIA application procedures for smaller facility types.

	<p>require the Noise Impact Assessment Summary Form, such that these facilities can be accounted for in cumulative noise analysis submitted by others. If yes, these facilities should maintain a record of their sound power/pressure levels of their noise sources.</p> <p>- yes, for transparency and creating a level playing field.</p>	
20.1	<p><b>NaturEner Energy Canada Inc.</b> As previously noted, NaturEner agrees to extend the definitions of receptors to include residences, public buildings (e.g. hospitals, libraries, schools), and commercial buildings (e.g. offices, hotels) that are present at the time of filing an application. NaturEner suggests AUC to establish one set of permissible sound levels for each category of receptors. The permissible sound levels for commercial buildings should be comparatively higher than the other categories since generally the ambient noise level in commercial buildings is much higher than that of residences.</p>	<p>The proposal to develop PSLs for different categories of parties potentially affected by noise from energy-related facilities has been deferred to the April 2011 to March 2012 review.</p>
20.2	<p><b>NaturEner Energy Canada Inc.</b> See comment to 20.1</p>	
20.3	<p><b>NaturEner Energy Canada Inc.</b> As previously suggested, if permissible sound levels are established for each category of receptors, such as residences, public buildings and commercial buildings (see comment to 20.1), noise complaints can be handled using the existing procedures.</p>	<p>The proposal to develop PSLs for different categories of parties potentially affected by noise from energy-related facilities has been deferred to the April 2011 to March 2012 review.</p>
Appendix 1 Glossary "dB (decibel)"	<p><b>Stantec Consulting Ltd.</b> Please considers revising "<math>2 \times 10^{-5} \text{ Pa}</math>" to "<math>2 \times 10^{-5} \text{ Pa}</math>" (superscribing -5).</p>	<p>Agreed.</p> <p>Change made to Rule 12: Appendix 1 – Glossary, dB (decibel), second sentence: <i>"Hearing tests indicate that the lowest audible pressure is about <math>2 \times 10^{-5} \text{ Pa}</math> (0 dB), while the sensation of pain is about <math>2 \times 10^2 \text{ Pa}</math> (140 dB)."</i></p>

<p><b>A1, P. 28</b></p>	<p><b>AltaLink Management Ltd.</b> AltaLink suggests that the definition of "Energy-related facility" in Appendix 1 – Glossary be expanded to add transport by railway or aircraft to the exception provided for transport by road.</p>	<p>Agreed.</p> <p>Change made to Rule 12: Appendix 1 – Glossary, Energy-related Facility: <i>"A facility under the jurisdiction of the Commission or other regulatory agency, used for energy generation, transport (except by road or rail line) or resource extraction. These include mining, extraction, processing and transportation (except by road or rail line) as well as federally regulated electrical transmission lines and pipelines."</i></p>
<p><b>Appendix 1 Glossary "Dwellings"</b></p>	<p><b>Stantec Consulting Ltd.</b> On the definition of <b>Dwellings</b>, please consider avoiding the use of word "dwelling" again in the definition paragraph. (i.e. Dwellings - a habitation, a place, or a house in which a person lives, abode, domicile). <i>"Trailer parks and campgrounds may qualify as a dwelling if it can be demonstrated that they are in regular and consistent use during the applicable season."</i> please clarify whether it is for the same party occupying the location or for the same location despite different occupancies.</p>	<p>The Commission agrees that the use of the word 'dwelling' in the definition of dwelling should be avoided.</p> <p>Change made to Rule 12: Appendix 1 – Glossary, Dwelling, first sentence: <i>"Any permanently or seasonally occupied <del>residence</del> structure used for habitation for the purpose of human rest; including a nursing home or hospital, with the exception of an employee or worker residence,..."</i></p> <p>The Commission does not agree that further clarification of regular and consistent uses is warranted.</p>
<p><b>Appendix 1 – Glossary Energy- related facility</b></p>	<p><b>RWDI Consulting Engineers &amp; Scientists</b> Energy-related Facility Definition The proposed definition includes energy-related facilities that may not be required to strictly comply with the criteria set out in AUC Rule 012 or in ERCB Directive 038. In the case where noise from an NEB or other facility is found to currently exceed the PSL at a dwelling, will the AUC limit power industry development in the area? This is not consistent with the ERCB interpretation of contributions from facilities not regulated under the Directive/Rule, which would be to use the A2 adjustment to determine the PSL, or allow the use of the 'no-net increase' concept in areas already saturated with noise</p>	<p>Where noise from energy-related facilities already exceeds the PSL, then development of additional energy-related facilities that generate noise can be accommodated only by reducing noise experienced at the nearest or most impacted dwelling or 1.5 km from the facility property (the no net increase approach) regardless if it is a NEB facility.</p> <p>The Commission has determined that the A2 adjustment may be applied only when noise from non-energy-related noise sources exceeds the PSL. NEB facilities are considered to be energy-related facilities.</p>

<p><b>Appendix 1 – Glossary Seasonally Occupied Dwelling</b></p>	<p><b>Shell Canada Energy</b></p> <p>In Appendix 1 – Glossary, the term “Seasonally-occupied dwelling” is defined as (emphasis added): A fixed residence that, while not being occupied on a full-time basis, is occupied on a regular basis. A regular basis does not imply a scheduled occupancy but implies use of six weeks per year or more. The <u>residence must not be mobile</u> and should have some sort of foundation or features of permanence (e.g., electrical power, domestic water supply, septic system) associated with it. Summer cottages or <u>mobile homes</u> are examples of seasonally-occupied dwellings, while a holiday trailer simply pulled onto a site is not.</p> <p>The use of the term “mobile homes” as an example of a seasonally-occupied dwelling is confusing given the definition’s description that the “residence must not be mobile”. Shell suggests the following modification to the definition of “seasonally-occupied dwelling”:</p> <p><i>A fixed residence that, while not being occupied on a full-time basis, is occupied on a regular basis. A regular basis does not imply a scheduled occupancy but implies use of six weeks per year or more. The residence must not be mobile and should have some sort of foundation or features of permanence (e.g., electrical power, domestic water supply, septic system) associated with it. Summer cottages <del>or mobile homes</del> are examples of seasonally-occupied dwellings, while a holiday trailer simply pulled onto a site is not.</i></p>	<p>The Commission agrees and the use of the term “mobile homes” has been removed from the glossary as it was no longer used.</p>
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<b>Appendix 1 Glossary "Heavily travelled road"</b>	<b>Stantec Consulting Ltd.</b> Guidance on how to split daytime and nighttime traffic value if only the average 24 hr traffic volume is available.	Previous applicants submitting NIAs have assumed that 10% of the daily total number of cars occurs during the night, however this can vary with the site. Acoustic practitioners are encouraged to use acoustic data to supplement traffic data when evaluating road use and provide that information to support the apportionment of day time and night time traffic volume.
<b>Appendix 3, Section 2</b>	<b>Stantec Consulting Ltd.</b> If sound pressure level (SPL) is provided for equipment, the overall dimension of the equipment will influence the sound power level as well as the predicted level at further distance. We recommend the additional information requirements for the equipment dimensions in the table. An unenclosed 1MW gen-set could be louder than an enclosed gen-set with more than 1MW power rating.	The AUC agrees and made several modifications to the Noise Impact Assessment Summary Form found in Appendix 3.
<b>Appendix 3, Section 5</b>	<b>Stantec Consulting Ltd.</b> If the predicted sound level exceeds the permissible sound level, we suggest a detailed NIA to be conducted. The determination of noise attenuation measures require the NIA level of details (i.e. assessing noise source, propagation, and attenuation in spectrum).	The AUC has made several modifications to the Noise Impact Assessment Summary Form found in Appendix 3.
<b>Revised Appendix 3 – Noise Impact Assessment Summary Form</b>	<b>AltaLink Management Ltd.</b> AML supports the proposed revision with the exception of Section 6(a). Section 6(a) states, "If the PSL is exceeded, provide the noise control measures that the licensee will install or implement to ensure compliance with the PSL, as if the equipment were to operate continuously." AML recommends that the Commission further	Section 6(a) has been deleted and AUC has made several modifications to the Noise Impact Assessment Summary Form found in Appendix 3.

	<p>clarify the intention of the phrase “as if the equipment were to operate continuously.” In particular, will the energy equivalent sound level (Leq) concepts outlined in Appendix 2.2 still apply for equipment that does not operate continuously throughout a specific time period? If not, which sound levels of the equipment need to be considered when determining noise control measures to install or implement?</p>	
<p><b>Appendix 3 Noise Impact Assessment Summary Form</b></p>	<p><b>AUC</b> Revision of the Noise Impact Assessment Summary Form is required to ensure consistency with AUC Rule 1 Rule of Practice, section 14 regarding disclosure of technical qualifications.</p>	<p>Change made to Rule 12: Appendix 3 – Noise Impact Assessment Summary Form <b>9. Acoustical practitioner’s information (See Section 3.8 (9)):</b> Company:----- Name:----- <b>Role in the Preparation of the Assessment</b> Title:-----  Telephone:----- Date:-----</p>
<p><b>Appendix 5 - 5.1.2</b></p>	<p><b>Stantec Consulting Ltd.</b> <i>“If the suspected LFN is intermittent, then <b>short-term measurements</b> should be taken at times when the low frequency sound is present.”</i> Short-term could be 30 second, 10 minutes, or 20 minutes. Guidance or clarification on minimum measurement period (i.e. 1 minute) will be helpful.</p>	<p>Follow the procedures for investigating noise.</p> <p>The principle contained in AUC Rule 012, Section 3.5 (3) about noise from an intermittently operated facility is also applicable to intermittent generation of low frequency noise: Predicted sound pressure levels for a facility that operates intermittently (for example, a peaking unit), is calculated based on noise generated for the duration of the operation and is not averaged over all of the nighttime or daytime period.”</p> <p>Therefore it is reasonable to record intermittent LFN over a period of at least three hours in the day time and three hours in the nighttime (Table 4) and to later use that recording to isolate noise from the calculation, when the LFN is not being generated. The duration of each ‘short measurement of LFN’ included in the calculation would depend upon the character of the LFN generated.</p> <p>Section 5.1.2 Intermittent LFN stipulates that “A high-quality audio recording of the sound over the period of concern may need to be taken for later analysis and identification of the duration and intensity of the LFN.”</p>

		Therefore initial measurement in the field should not attempt to record noise only while the intermittent noise occurs but rather to use the recording of intermittent LFN to isolate and calculate the average level of the LFN afterwards.
<b>Appendix 6 – Example 3; Third Paragraph</b>	<p><b>RWDI Consulting Engineers &amp; Scientists</b>  What criteria are to be used to establish whether a single-source facility contributes or does not contribute to noise levels at a far-field location? Should this be tied in to the assumed ambient or existing levels or numerical increase as in less than 0.1 dB, for example?  Why are the levels from the existing facility the same at 1.5 km as they are at 1.8 km (dwelling)?  Should the measured CSL at the dwelling be scaled to 1.5 km?  Also, a comment may be added that special care should be taken to ensure that the CSL is measured properly, and to that end, the monitoring may have to be conducted over a period of time that is longer than 24 hours.</p>	<p>To demonstrate that the contribution of a proposed facility has no net increase on noise at 1.5 km the effect of adding the additional predicted noise of that facility to that of other energy-related facilities and the ambient noise to the total noise levels must not increase (i.e. change = 0 dB) - taking into consideration the number of significant digits of the values used in that calculation.</p> <p>The AUC plans to review the examples provided in Rule 012 in greater detail during the April 2011 to March 2012 review.</p>
<b>Appendix 6, P. 52</b>	<p><b>AltaLink Management Ltd.</b>  AltaLink suggests that the Legend in Figure 8 be amended to: “1.5 km distance from facility <i>fence line property</i>”.</p>	<p>Agreed, although the term used in Rule 012 is “the facility property” to allow for circumstances where there are no fence lines.</p> <p>Change made to Rule 12: Figure 9 legend:  “<i>Applicable 1.5 km criteria boundary</i>”</p>
<b>Scenario 3A Approach (5)</b>	<p><b>Stantec Consulting Ltd.</b>  Please provides guidance on dealing with significant digit or decimals (i.e. 37.4 dBA + 37.4 dBA = 40.4 dBA which is &gt; 40 dBA), 37 dBA to 37 dBA = 40 dBA).</p>	<p>The Commission will consider clarifying the Rule. The initial noise measurements provided should be reported using the significant digits available and added together using those digits. The final comparison is however; always rounded to two significant digits for comparison with the PSL.</p> <p>Change made to Rule 12: Section 3.3 third sentence:  “<i>The predicted noise levels of the facility plus the ASL and noise from any energy-related facilities must be</i></p>

		<p><i>calculated, and compared to the PSL.”</i></p> <p>For the example you provided, though 37.4 dBA and 37.4 dBA each have three significant digits which must be used in the calculation and the answer reported as 40.4 dBA. For comparison with the PSL however, as the PSL is a whole number with only two significant digits, the sum of the noise levels is rounded to the nearest whole number for comparison.</p>
<b>Scenario 3B Approach</b>	<b>Stantec Consulting Ltd.</b> Excellent example.	No response required.
<b>General</b>	<p><b>TransAlta</b> We would suggest you consider capitalizing or italicizing terms that are defined in the Glossary to direct the reader to those specified terms.</p> <p><b>Stantec Consulting Ltd.</b> For NIA submitted prior to the completion of first segment technical change (tentative March 31, 2011), will the Commission review the NIA based on the latest revision in Rule 012?</p>	The Rule will be implemented with a brief phase in period to permit NIAs developed during that phase-in time to be reviewed according the Rule 012 requirements in effect at that time.
	<p><b>Imperial Oil Resources</b></p> <p>In 2010, IOR requested that the Alberta Utilities Commission (AUC) clarify who has jurisdiction (suggesting the form of a Memorandum of Understanding [MOU]) over a site that could fall under the Energy Resources Conservation Board (ERCB)'s Directive 38 as well as the AUC's Rule 12. In the current version of Rule 12, the AUC suggests that it has jurisdiction over any "facility" as defined in the Hydro and Electric Energy Act, which can include gen-sets at oil well sites or a cogeneration power facility that is part of a much larger oil sands facility. IOR continues to encourage the AUC to</p>	<p>The potential sources of confusion concerning jurisdiction are unclear. The agency that licenses or approves a facility is ultimately responsible for providing regulatory oversight of that facility.</p> <p>The possibility of combining review of NIA for large scale developments with co-generators was deferred to the April 2011 to March 2012 review.</p> <p>The addendum to version 3 of Rule 012, released with Bulletin 2011-07, dated February 15, 2011 provided for streamlined NIA application procedures for smaller facility types.</p> <p>The proposal for self monitoring was addressed in the previous response to participant comments provided with Bulletin 2011-07, dated February 15, 2011 which read “The inclusion of noise monitoring plans in Rule 012 indicates that the AUC is willing to consider unique cases.</p>

<p>work with the ERCB to clearly state to industry who would have jurisdiction in such situations.</p> <p>In 2010, the AUC stated that one of the issues that would be addressed in the revision of Rule 12 was "whether or not a Noise Impact Assessment (NIA) must be submitted to the AUC in addition to other regulators (ex. ERCB) if the AUC facility is a minor part of a much larger project (ex. cogen facility at an oil sands project)?" IOR does not feel that this has been addressed in this revision of Rule 12. IOR suggests that a NIA should only be submitted to the regulator that has jurisdiction over the proposed project (jurisdiction could be determined as per an MOU as suggested in the previous point).</p> <p>In 2010, the AUC stated that one of the issues that would be addressed in the revision of Rule 12 was "whether or not a NIA is required for all facility types or if certain facilities will be exempt from Rule 12 (ex. small facilities &lt; 1 MW)?" IOR does not feel that this has been addressed in this revision of Rule 12. IOR suggests that an NIA should not be required for small facilities such as gen-sets at well sites.</p> <p>In 2010, IOR requested that the AUC clarify whether or not the it will accept programs like Cold Lake's self-monitoring program (a Noise Management Plan [NMP] that has been approved by the ERCB) under Rule 12, which has a similar clause regarding NMPs. The AUC has not stated whether or not an ERCB-approved NMP will also be approved by the AUC. IOR suggests that an ERCB-</p>	<p>When proof of compliance is required, proponents must provide measurements to show compliance with the PSL or the noise management plan. The AUC has not considered entering into agreements with stakeholders to streamline the requirements of Rule 012. To indicate compliance for proposed facilities, an NIA is required. To demonstrate compliance of existing facilities or in a complaint situation, monitoring is required.</p>
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	approved NMP should be automatically approved as an AUC NMP because an ERCB NMP would meet the intent of an AUC NMP.	
<b>New</b>	<p><b>NaturEner Energy Canada Inc.</b>  How long is an NIA considered technically valid? The noise impact assessment of a facility should remain valid unless the facility has proposed changes to the facility design or operation conditions as modeled in the submitted NIA.</p>	An approved NIA is valid so long as the basis for the noise prediction remains valid; the noise sources, factors affecting noise dispersion and the potentially affected dwellings remain unchanged.
<b>New</b>	<p><b>NaturEner Energy Canada Inc.</b>  Definitions for energy-related facility, Most affected dwelling, temporary noise generating activity, proposed facility.  Replace "worst impacted" with "most affected" as appropriate.</p>	The AUC purposely used the term "nearest or most impact dwellings" and feels that term is appropriately used.