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**From:** Dokouzian, Shant <shant.dokouzian@dnvgl.com>  
**Sent:** Monday, August 14, 2017 10:46 PM  
**To:** Miltich, Louise (COMM)  
**Cc:** Cookson, Michael  
**Subject:** RE: Bent Tree Acoustic Audit  
**Attachments:** 10046144-HOU-R-02-A Bent Tree Acoustic Audit\_Draft.pdf

Hi Louise,

Please find attached the audit report as discussed. As you will notice the report closely follows the LWECS Guidance analysis and reporting requirements.

In summary, there is a combined total of 16 hours of non-compliance over the measurement period. Many of the exceedances occur between the hours of 4 and 7am, when we can often hear birds chirping and/or wind blowing through the tree leaves. However, there are exceedances when birds cannot be heard, especially at Hagens. In essence, and as stated in the report, it is reasonable to consider that birds and/or wind blowing through the vegetation is likely responsible for some of the exceedances, but it also not possible to discount the wind facility as being a main contributor in some instances. Although not entirely clear, we believe that the wind turbines could be heard in some of the recordings. We also heard the wind turbines while on site. As such, and as stipulated in the LWECS Guidance, further investigations would be required to properly isolate the wind facility sound from the ambient sound.

I suggest a call Thursday at 10 am CDT (11 am EST)? let me know if this works for you.

Cheers.

for GL Garrad Hassan Canada Inc.

**Shant Dokouzian, P.Eng.**  
**Senior Project Manager, Development and Engineering Services**  
**Principal Engineer**  
**Renewables Advisory, DNV GL - Energy**

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**From:** Miltich, Louise (COMM) [mailto:louise.miltich@state.mn.us]  
**Sent:** Monday, August 14, 2017 11:34 AM

**To:** Dokouzian, Shant <shant.dokouzian@dnvgl.com>  
**Cc:** Cookson, Michael <Michael.Cookson@dnvgl.com>  
**Subject:** RE: Bent Tree Acoustic Audit

Shant,

Thanks for the email – the delay is not a problem on our end and I'm glad you have been able to work through the timestamp issue. Go ahead and send the report over when it is ready and let's plan to talk later this week when I have had a chance to review the report. I'm free all day Thursday and Friday, so whatever works for you will work just fine for me as well.

As far as the PO goes, yes, please go ahead and get in touch with Greg regarding the PO amendment and let me know if you need anything from me on that front.

Again, thanks for the update. Talk to you soon.

Louise

**Louise I Miltich**

Planner Principal

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**From:** Dokouzian, Shant [<mailto:shant.dokouzian@dnvgl.com>]  
**Sent:** Friday, August 11, 2017 2:04 PM  
**To:** Miltich, Louise (COMM) <[louise.miltich@state.mn.us](mailto:louise.miltich@state.mn.us)>  
**Cc:** Cookson, Michael <[Michael.Cookson@dnvgl.com](mailto:Michael.Cookson@dnvgl.com)>  
**Subject:** Bent Tree Acoustic Audit

Hi Louise,

I hope all is well and you are having a pleasant summer.

My understanding is that you spoke to Michael Cookson during my absence. While analyzing the data, we had noticed an issue with the timestamp. Basically the timestamp for each record was off. We were able to fix this issue and successfully apply the proper timestamp to each record. The sound data recordings were not affected whatsoever. We completed the re-analysis and are in the final stages of the report. I apologize for the delay. I will have the report ready by Monday/Tuesday latest of next week. Please let me know if you wish to discuss the above prior to issuance of the report – or alternatively we can have a chat once you have the report?

On another note, there is a marginal increase in the budget of approximately 15%. The timestamp correction work is on us. I trust the budget increase is reasonable due to the campaign extension. During a brief "authorized" discussion with WPL, the site manager Greg had mentioned to simply advise them and they would issue a PO amendment. Are you agreeable in me contacting them on this?

Cheers.

for GL Garrad Hassan Canada Inc.

**Shant Dokouzian, P.Eng.**  
**Senior Project Manager, Development and Engineering Services**  
**Principal Engineer**  
**Renewables Advisory, DNV GL - Energy**

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