



File: D03 – Windlectric

March 9, 2016

Algonquin Power Co.
354 Davis Road, Suite 100
Oakville, Ontario
L6J 2X1

Attn: Alex Tsopelas, Project Manager, Renewables

Dear Alex:

Re: Review of Wind Farm Drawings

Thank you for providing the above-noted report for our review. Our consultant, AECOM, has prepared a response compiled from their observations as well as Loyalist Township staff comments on the report. We are pleased to attach these for your review and comment.

Please do not hesitate to contact the undersigned at 613-386-7351, ext. 117, should you have any questions.

Yours truly,

A handwritten signature in black ink, appearing to read "David MacPherson", written over a horizontal line.

David MacPherson, C.E.T.
Public Works Manager
DM/ka

Encl.

March 9, 2016

Mr. David MacPherson C.E.T.
Manager of Public Works
Loyalist Township
263 Main Street, P.O. Box 70
Odessa, ON K0H 2H0

Dear Mr. MacPherson:

Project No: 60483242
Regarding: Review of Wind Farm Drawings
Amherst Island Wind Energy Project

We have completed our review of the drawings entitled "Amherst Island Wind Project; Amherst Island, Loyalist Township, Ontario; 75MW Wind Farm" prepared by Stantec and dated July 28, 2015. Our comments are as follows:

General Comments

The reviewed drawings are conceptual in nature – detailed drawings based on accurate topographic information and accurate legal surveys are required. Offsets from property lines must be shown. Impacts on trees, tree roots, drainage features and existing fences must be detailed. The location of underground plant must be tied to visible features.

Type and size of cable is not shown. Junction boxes and pull boxes are not shown. Type of communication cable is not shown. No restoration details are indicated (road/shoulder/driveway and boulevard areas).

Watershed boundaries are not shown on plan. Permits are required for creek crossings, copies are to be provided to Loyalist Township. Furthermore, the drawings do not include any details of Environmental Effects Mitigations, Construction Management details, vegetation removals, erosion and sediment controls, etc. Please clarify how the mitigations and other requirements identified in the reports being developed and commitments made by the proponent will be incorporated into the proposed works detailed on the drawings and communicated to the contractors carrying out this proposed work.

The reviewed drawings are marked "preliminary". Final, stamped drawings will be required prior to construction.

Comments on Drawings

E121.7 – the installation on Dump Road is going to require removal of an entire windrow of trees – is there an option to stay on the private lands to the east?

E121.23 – South Shore Road is very narrow, and very close to the lake. There are many mature trees on the north side that will be impacted by excavations. Is there an option to remain on private lands, behind the existing homes?

E121.24 – the alignment appears to stay off of Marshall 40 Foot Road, which is preferred. Confirm that separation from road is sufficient to preserve trees.

E121.30 – are P2 and P3 proposed poles? These should be indicated in the legend. Are guy wires required for the pole installations? Are there are grounding grids required within the Municipal right-of-way?

E130.1 – Is it feasible to install HDPE Carrier Pipe as indicated – i.e. in a “U” shape? What size is the HDPE? It is suggested that these crossings be considered/identified in plan view as well – is there sufficient space to achieve the vertical deflections; e.g. on Sheet E121.27 where it is proposed that the duct bank cross the road just before crossing the watercourse?

E131.1 – Note indicates that alignment to be staked by contractor in field and then approved by Township – this is unacceptable; alignment must be clearly identified on the drawings and approved by Township in advance. It is agreed that staking of alignment and walkthrough with Township prior to this work commencing should also occur, however this does not eliminate the requirement for the alignment to be clearly detailed on the drawings and approved by the Township prior to undertaking.

E131.1 – Trench detail indicates greater than 1.1m excavation. This will have significant impacts on tree roots. This should be addressed in advance of construction.

E131.1 – Trench details show communication cables in same trench as power cables. This is not permitted under the electrical code – please confirm required separations.

E132.1 – Detail B shows cable in shoulder, but there are very few places on Amherst Island where the roads have shoulders – what is plan if cable has to be under traveled portion of road?

E132.1 – Detail D – Driveway/Road Crossings – this does not depict a driveway crossing, and does not provide any detail for road crossing. Is it showing an HDPE carrier pipe under road? Are these to be bored? Are driveway crossings also to be bored?

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E133.1 – drawings seem to indicate 90⁰ bends where cables turn to cross road. What is minimum radii of a cable bend?

Closing

Amir Ghaly, P.Eng., Electrical Engineer and Guy Laporte, Senior Engineer, both of AECOM, have assisted in preparation of this letter.

Sincerely,
AECOM Canada Ltd.



Marissa Mascaro, P.Eng.
Project Engineer
Marissa.Mascaro@aecom.com

GML:gl