

Extension of the Maritime Electric Transmission Line System**Proponent:**

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Charlottetown PE C1A 7N2

- iii) Vice President, Customer Service Fred J. O'Brien

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The Undertaking:

- i) Nature of the Undertaking
The construction of a new 138 kV transmission line from the Dingwells Mills Substation to the new substation located in the North Lake/East Point area on Property # 110916. The total distance of this project is 44 kms.

- ii) Rational
The new transmission line is the first step required to connect the new wind generation site in the North Lake/East Point area to the existing 69 kV system at the Dingwells Mills Substation. The transmission line will be constructed to 138 kV standards; however, it will initially operate at 69 kV until such time as the wind generation in the area exceeds 50 MW. Once the generation exceeds 50 MW this line will be energized to 138 kV.

Description of the Undertaking:

Three routes were considered; the first being along the south shore of the Province along Route 2 and Route 16. This was ruled out due to technical and economic reasons. The second route was to bring the transmission line up to the north shore and then along Route 16. This was also ruled out due to technical and economic reasons. The route for the undertaking will start at the Dingwells Mills Substation and is described in the geographic location section below;

- i) Geographic Location
The route for the undertaking will start at the Dingwells Mills Substation and proceed west along the north boundary of the St. Peters Road (Rte. # 2) to the Whitty Road, there it will follow the south side of the Whitty Road until it reaches the Selkirk Road (Rte. # 309). From this point it will go north along the east boundary of the Selkirk Road to the Church Road where it will turn east along the south side of the Church Road until it reaches the Saint Charles Road (Rte. # 308). From here it will go south along the east boundary of the Saint Charles Road to the Sheehan Road and then follow the north boundary of the Sheehan Road to the intersection with the Bear River and Manning Roads. The line will

then cross the Bear River Road and proceed down the south boundary of the Manning Road until it reaches the New Zealand Road (Rte. # 306). The line then turns south along the west boundary of the New Zealand Road until it is approximately half way to the Souris River Road, at which point it will cross the New Zealand Road to avoid the existing power line. It will then continue along the east side of the New Zealand Road to the Souris River Road (Rte. # 358) where it will turn east and travel along the north boundary of the Souris River Road to the Grant Road (Rte. # 304). From this point the line follows the south boundary of the Grant Road until it crosses to the north side and eventually reaches the Souris Line Road (Rte. # 305) where it will cross over to the east boundary, then turn south a short distance until it reaches the Glen Road (Rte. # 304). The line will once again turn east and follow the north boundary of the Glen Road, cross over the New Harmony Road and continue on until it reaches the Baltic Road (Rte. # 302). The line again turns north for a short distance along the west side of the Baltic Road until it reaches the north side of the Tarantum Road (Rte. # 304). At this point it turns east and continues along the north boundary of the Tarantum Road until it reaches the east side of the Elmira Road (Rte. 16A). From this point the line turns north along the east side of the Elmira Road until it reaches Provincial Property # 111161 where it follows the south side of a new access road traveling east across property numbers; 11161, 110973, 110965 and 110932 until it reaches the new substation site located on Property # 110916. Please refer to the attached plans in Appendix A for location details.

ii) Physical Features

The proposed route includes both paved and clay roads, some of the clay roads have a narrower travel surface than usual and are not plowed during the winter. Also some areas are wooded while others are low and wet.

iii) Construction

Construction of the transmission line is expected to begin in May and be completed by the end of September, 2006. Construction will typically take place during normal working hours from 7:00 a.m. to 7:00 p.m.

There are some sections of the route that will require special attention with respect to construction and vegetation management due to potential environmental risks and aesthetics. For the most part this would include sections of the Glen Road and the Tarantum Road.

In order to reduce potential impacts to the environment the following work methods will be conducted:

- a) Construction will not begin in areas along the clay roads where channeling would be considered an issue until such time as the roads are dry.
- b) Where a pole is required in an area that is considered wetland, the pole installation method will be to use a 30 inch auger, set the pole in the hole and then fill the remainder of the hole with aggregate (a mixture of gravel, sand, etc.). This method has been quite successful in reducing impacts on the environment.

- c) In areas where the trees form a canopy over the road, the structure design will be changed to minimize the impact of trimming the canopy (please refer to the concept drawing in Appendix B).
 - d) In order to reduce environmental impacts in future during the winter and spring months, emergency repairs will be conducted with a tracked vehicle.
 - e) An example of the typical transmission line pole structures can be seen in Appendix C.
- iv) Operation
An inadvertent release of fuel, hydraulic fluid, etc. will be handled using Maritime Electric's spill response and clean up policies and procedures designed for such contingencies. All construction vehicles will be equipped with Emergency Spill Response Kits and a complete Spill Response Kit will be available at the Souris Substation.
- v) Other
A Project Registration and Environmental Assessment Form was submitted to the Province on November 25, 2005.

An information meeting was held with representatives from various Provincial Departments on January 11, 2006. Several items were discussed at this meeting including the Province requesting Maritime Electric review the option of placing the pole line along Route 16 (North side).

A second information meeting was held with representatives from various Provincial Departments on February 7, 2006 and at that time Maritime Electric advised that the optional route along Route 16 had again been ruled out due to technical and economic reasons.

The following is a summary of the concerns that were raised at that meeting with respect to the route as defined in this Undertaking along with Maritime Electric's proposals to reduce them.

- 1) Concern - Impact to the tree canopy at various sections along the unpaved roads and public reaction to the impact:
 - Maritime Electric will redesign the structure types in these sections to reduce impacts on the canopies. The total distance of the canopied section is 3.5 kms.
 - Maritime Electric is willing to participate in a public meeting with the PEI Energy Corporation on issues of public concern.
- 2) Concern - Right of Way (ROW) and property issues:
 - It was brought up at the meeting that Maritime Electric would be responsible to look into property deeds with respect to ROW widths. Further discussions with Serge Bernard (Chief Surveyor for the Province) indicated this may not be an issue and he would look into the matter.

- 3) Concern - Winter Access for Maintenance and Emergency work:
 - Plowing these roads in winter is expected to cause channelization of spring snow-melt and thus cause road erosion and transportation of sediment into the watercourses – Maritime Electric plans to do all scheduled maintenance during the summer/fall windows. During emergencies in the winter/spring windows when travel may have an impact on the watercourses, a tracked vehicle will be used to reduce any such impacts.

vi) Estimated Project Cost

a. \$3,575,000

vii) Application Fee

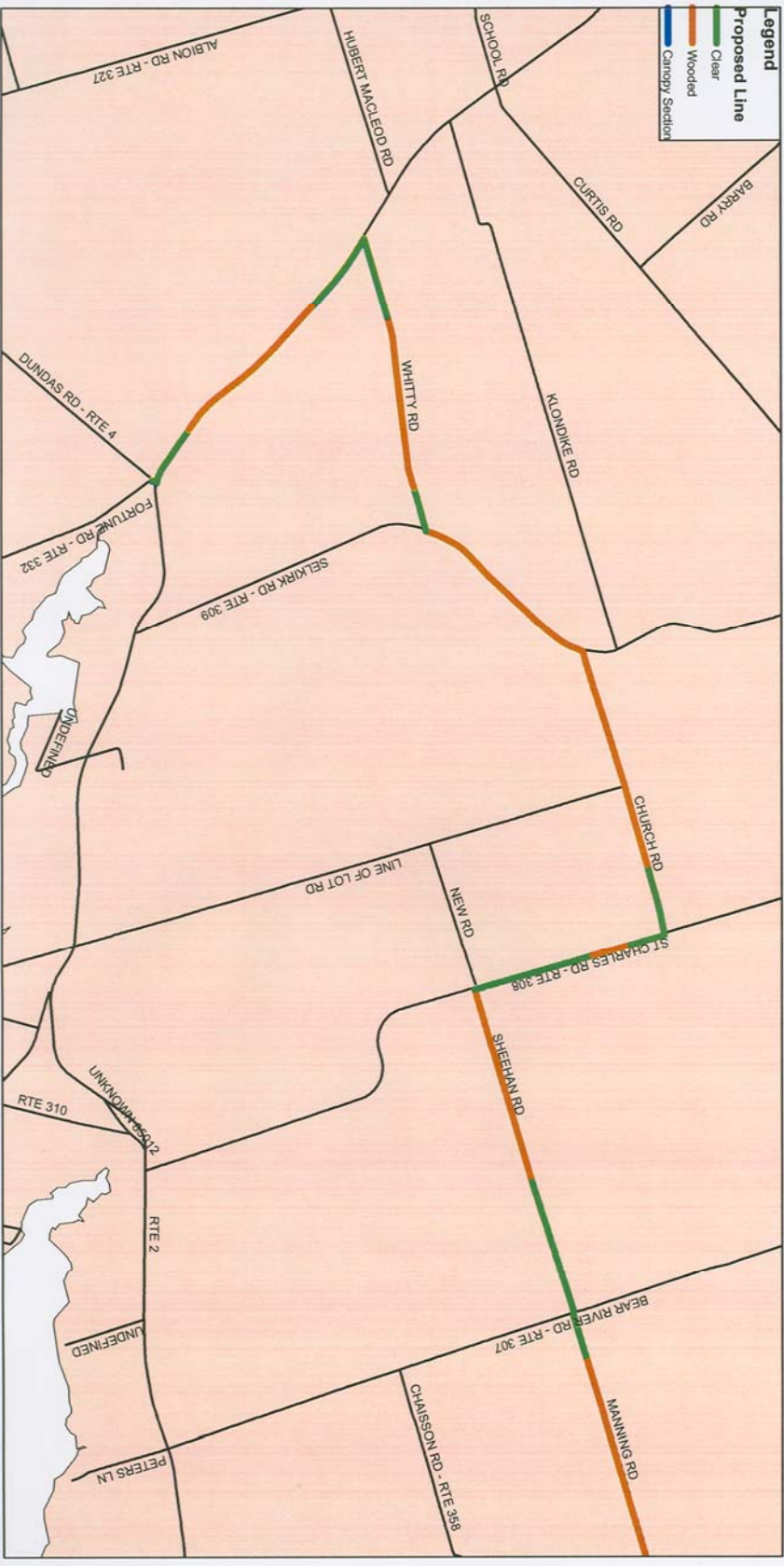
a. \$10,000

Date

Vice President, Customer Service

Appendix A

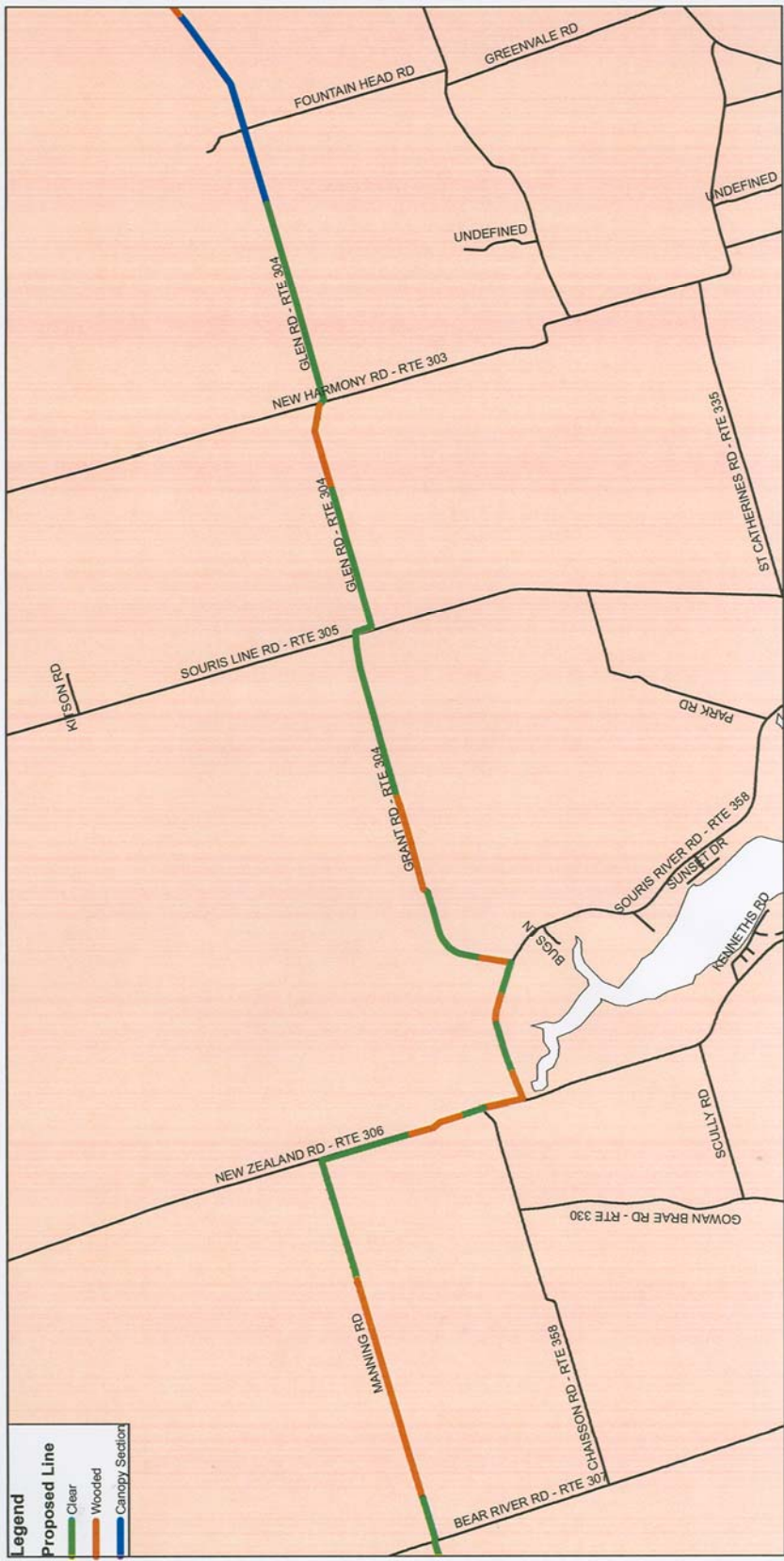
Proposed Transmission Line Route Dingwells Mills to East Point Wind Farm



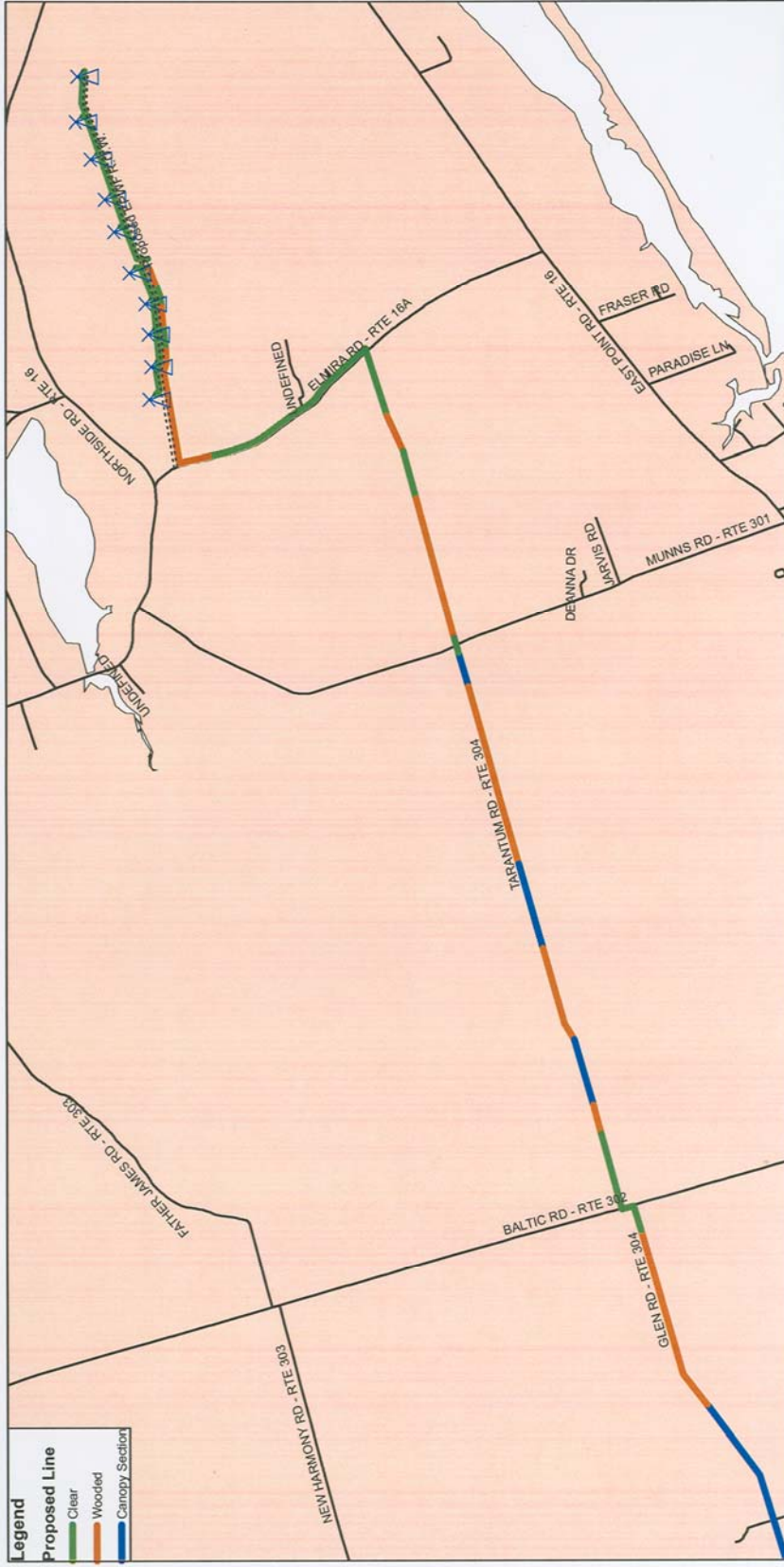
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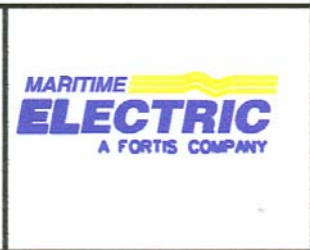


Appendix B



DATE : MAR. 02, '06
 REVISED :
 VC. No. : G-06-01
 SCALE : N.T.S.
 DRAWN : J.E.B.
 APPROVED: DMB

CONCEPT DRAWING
 CANOPY SECTIONS
 TRANSMISSION LINE
 DINGWELLS MILLS TO ELMIRA



Appendix C

