EB-2007-0050

Chris Pappas - Interrogatories for Hydro One – 12 – 16, Part 3

March 3, 2008

Preamble:

Some of the requested information, following, is available in IESO and Hydro One documents. However, the preference, here, is to have it all available in one document.

Interrogatory No. 12

Ref. 1) APPENDIX A to Procedural Order No. 5 IN THE MATTER OF Leave to Construct Application by Hydro One Networks EB-2007-0050 DATED February 25, 2008

Issue Number: 1.0 Project Need and Justification

Issue Number: 1.1

1.1 Issue: Has the need for the proposed project been established?

Issue Number: 1.4

1.4 Issue: Is the project suitably chosen and sufficiently scalable so as to meet all reasonably foreseeable future needs of significantly increased or significantly reduced generation in the Bruce area?

Issue Number: 4.0 Reliability and Quality of Electricity Service

Issue Number: 4.1

4.1 Issue: For the preferred option, does the project meet all the requirements as identified in the System Impact Assessment and the Customer Impact Assessment?

Issue Number: 4.2

4.2 Issue: Does the project meet applicable standards for reliability and quality of electricity service?

Issue Number: 4.3

4.3 Issue: Have all appropriate project risk factors pertaining to system reliability and quality of electricity service been taken into consideration in planning this project.

Request

Provide the following information for the existing transmission lines energized by the Bruce Nuclear generation facility and for the proposed new Bruce to Milton circuits – the designation of each circuit [eg. N582L], the 'geographical' designation of each circuit [eg. Bruce to Milton], the voltage [eg. 500 kV, 230 kV], the Amperage Rating [eg. 1400 amps, 4100 amps], the power rating in MW, the power actually carried on average, in MW for each, the power carried, in MW on each during Provincial Demand Peaks of 25000 MW, 27000 MW and 29000 MW, the length in km, the power factor [eg. 0.95, 0.9] and the conductor for each. For this last, provide the conductor Type, size [diameter], cross section Area in mks units, temperature rating, resistance R in ohms [cross section Area], resistivity p in ohm-meters, and resistance R in ohms/km [length].
Provide this in a graphical form similar to the following:

Circuit: 1 2 3 4 5 6 7 8 9 10 [Proposed, eg. 11, 12]
[eg. Designation 1 = n582L]

Circuit: 1 2 3 etc.
[eg. 'geographical' designation]

Voltage: 1 2 3 etc.
kV

Rating:
Amps

Rating:
Power
MW

Power:
Average
Non-peak
Transmitted
MW

Power:
MW
During
Provincial
Demand
25000 MW

Power:
MW
During
Provincial
Demand
27000 MW

Power:
MW
During
Provincial
Demand
29000 MW

Length:
Km

Power
factor

Conductor

Type

Diameter

Cross
Section
Area
[mks]

Rating:
Temperature

Resistance R:
[cross section
Area]
Ohms

Resistivity p:
Ohm-meters

Resistance:
Length
Ohms/km

[These last three are required as asked to provide R = p L/A ohms.]

Interrogatory No. 13
Ref. 1) APPENDIX A to Procedural Order No. 5 IN THE MATTER OF Leave to Construct Application by Hydro One Networks EB-2007-0050 DATED February 25, 2008
Issue Number: 1.0 Project Need and Justification
Issue Number: 1.1

1.1 Issue: Has the need for the proposed project been established?

Issue Number: 1.4

1.4 Issue: Is the project suitably chosen and sufficiently scalable so as to meet all reasonably foreseeable future needs of significantly increased or significantly reduced generation in the Bruce area?
Issue Number: 4.0 Reliability and Quality of Electricity Service
Issue Number: 4.1

4.1 Issue: For the preferred option, does the project meet all the requirements as identified in the System Impact Assessment and the Customer Impact Assessment?
Issue Number: 4.2

4.2 Issue: Does the project meet applicable standards for reliability and quality of electricity service?

Issue Number: 4.3

4.3 Issue: Have all appropriate project risk factors pertaining to system reliability and quality of electricity service been taken into consideration in planning this project?

Request

Provide, in the case of only the existing circuits [from Interrogatory # 12], without the proposed new Bruce to Milton Transmission Build, the generation source for each existing circuit, from Bruce A or Bruce B, and which particular generating unit with its MW rating, for each circuit.

Interrogatory No. 14

Ref. 1) APPENDIX A to Procedural Order No. 5 IN THE MATTER OF Leave to Construct Application by Hydro One Networks EB-2007-0050 DATED February 25, 2008

Issue Number: 1.0 Project Need and Justification

Issue Number: 1.1

1.1 Issue: Has the need for the proposed project been established?

Issue Number: 1.4

1.4 Issue: Is the project suitably chosen and sufficiently scalable so as to meet all reasonably foreseeable future needs of significantly increased or significantly reduced generation in the Bruce area?

Issue Number: 4.0 Reliability and Quality of Electricity Service

Issue Number: 4.1

4.1 Issue: For the preferred option, does the project meet all the requirements as identified in the System Impact Assessment and the Customer Impact Assessment?

Issue Number: 4.2

4.2 Issue: Does the project meet applicable standards for reliability and quality of electricity service?

Issue Number: 4.3

4.3 Issue: Have all appropriate project risk factors pertaining to system reliability and quality of electricity service been taken into consideration in planning this project?

Request

Provide, in the case of the existing circuits [from Interrogatory # 12], with the addition of the proposed new Bruce to Milton Transmission Build, the generation source for each existing circuit and the proposed new circuits, from Bruce A or Bruce B, and which particular generating unit with its MW rating, for each circuit.

Interrogatory No. 15

Ref. 1) APPENDIX A to Procedural Order No. 5 IN THE MATTER OF Leave to Construct Application by Hydro One Networks EB-2007-0050 DATED February 25, 2008

Issue Number: 1.0 Project Need and Justification

Issue Number: 1.1

1.1 Issue: Has the need for the proposed project been established?

Issue Number: 1.4

1.4 Issue: Is the project suitably chosen and sufficiently scalable so as to meet all reasonably foreseeable future needs of significantly increased or significantly reduced generation in the Bruce area?

Issue Number: 4.0 Reliability and Quality of Electricity Service

Issue Number: 4.1

4.1 Issue: For the preferred option, does the project meet all the requirements as identified in the System Impact Assessment and the Customer Impact Assessment?

Issue Number: 4.2

4.2 Issue: Does the project meet applicable standards for reliability and quality of electricity service?

Issue Number: 4.3

4.3 Issue: Have all appropriate project risk factors pertaining to system reliability and quality of electricity service been taken into consideration in planning this project?

Request

Provide, in the case of only the existing circuits [from Interrogatory # 12], without the proposed new Bruce to Milton Transmission Build, which circuits would carry the power from the Bruce Wind Installation and the power in MW for each.

Interrogatory No. 16
Ref. 1) APPENDIX A to Procedural Order No. 5 IN THE MATTER OF Leave to Construct Application by Hydro One Networks EB-2007-0050 DATED February 25, 2008
Issue Number: 1.0 Project Need and Justification
Issue Number: 1.1

1.1 Issue: Has the need for the proposed project been established?

Issue Number: 1.4

1.4 Issue: Is the project suitably chosen and sufficiently scalable so as to meet all reasonably foreseeable future needs of significantly increased or significantly reduced generation in the Bruce area?

Issue Number: 4.0 Reliability and Quality of Electricity Service
Issue Number: 4.1

4.1 Issue: For the preferred option, does the project meet all the requirements as identified in the System Impact Assessment and the Customer Impact Assessment?

Issue Number: 4.2

4.2 Issue: Does the project meet applicable standards for reliability and quality of electricity service?

Issue Number: 4.3

4.3 Issue: Have all appropriate project risk factors pertaining to system reliability and quality of electricity service been taken into consideration in planning this project?

Request

Provide, in the case of the existing circuits [from Interrogatory # 12], with the addition of the proposed new Bruce to Milton Transmission Build, which circuits would carry the power from the Bruce Wind Installation and the power in MW for each.