

EB-2007-0050

The Ross Firm Group's Interrogatories for Hydro One

Interrogatory No. 1

Ref. Exh. B / T 6/ S5 / Appendices 1, 2, 5, (and October 15 Technical Conference)

Issue Number: 1 Project Need and Justification

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

Request:

1. The 1985 Ontario Hydro Transmission System was designed to be sufficiently scalable for eight units at the Bruce Generation Complex.
 - i. Please provide the reports and data prepared, referred to or relied upon to support the position that the Transmission System was sufficiently scalable to support eight units at the Bruce.
 - ii. Please provide reports prepared, referred to, or relied upon for the current project which substantiates the need for increased transmission capacity from the Bruce.
2. Please provide all transmission records from 1985 to present. It is of note that Federal Regulations require keeping generation records for seventy-five (75) years after a unit is decommissioned. Based on this fact, clearly the information is available to Hydro One forthwith.

Interrogatory No. 2

Ref. October 15 Technical Conference, PowerPoint Presentation, Page 16, Slide 1

Issue Number: 2 Project Alternatives

2.2 Has an appropriate evaluation methodology been applied to all the alternatives considered?

Preamble:

The Bruce to Kleinburg to Claireville and Bruce to Crief options were determined to be not feasible for the sole reason that they were inconsistent with Provincial Land Use Policy.

Request

1. Please provide copies of all legal opinions obtained with regard to the interpretation and implementation of the above-mentioned Provincial Land Use Policy.
2. Please provide all internal memos, letters, and/or reports discussing the interpretation of the Provincial Land Use Policy.

Interrogatory No. 3

Ref. October 15, 2007 Technical Conference, PowerPoint Presentation, Page 14, Slide 2

Issue Number: 2 Project Alternatives

2.2 Has an appropriate evaluation methodology been applied to all the alternatives considered?

Preamble:

This slide deals with screening and evaluation criteria. The first point deals with the concept of Government Policy.

Request:

Kindly provide a list of all government policies, regulations, and statutes that were considered under this heading. Kindly make specific references to the sections, paragraph, page or concept within the policy that was being employed in the screening and evaluation criteria.

Interrogatory No. 4

Ref. Exh. B / T6 / S5 / Appendix 5 / Page 3

Issue Number: 2 Project Alternatives

Issue 2.2:

Has an appropriate evaluation methodology been applied to all the alternatives considered?

Request

Please provide the Assessment undertaken by the OPA, HONI, and IESO assessing the technical impacts of the Bruce to Milton Options.

Interrogatory No. 5

Ref. Exh. B / T6 / S5 / Appendix 5 / Page 48

Issue Number: 2 Project Alternatives

2.1 Have all reasonable alternatives to the project been identified and considered?

2.2 Has an appropriate evaluation methodology been applied to all the alternatives considered?

2.3 For all of the considered alternatives, does the evaluation methodology utilized include a cost benefit comparison as well as a comparison of all quantitative and qualitative benefits?

2.4

a) Have appropriate evaluation criteria and criteria weightings been utilized in the evaluation process for the alternatives and the proposed project and what additional criteria/weightings could be considered?

b) Have appropriate comparisons been carried out on all reasonable alternatives with respect to reliability and quality of electricity service, including stability and transient stability levels, voltage performance and Loss of Load Expectation projections under normal and post-contingency conditions?

Preamble:

“The London reinforcement alternative requires adding major reactive power support devices (series capacitors) as a part of the system reinforcement, just to have sufficient transfer capability for the eight Bruce units and 725 MW of wind generation.”

Request

1. What are the costs associated with the indirect path through London utilizing Series Capacitors?
2. Please provide all studies, reports, and opinions prepared, referred to, or relied upon in coming to the above-quoted conclusion.

Interrogatory No. 6

Ref. Exh. B / T6 / S5 / Appendix 5 / Page 51

Issue Number: 1 Project Need and Justification

Issue:

1.3 Have all appropriate project risk factors pertaining to the need and justification (including but not limited to forecasting, technical and financial risks) been taken into consideration in planning this project?

1.4 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?

Preamble:

“There are a number of considerations that must be well understood as the use of this technology [series compensation] is explored for the Bruce system. As it is being considered for a critical part of the Ontario system, due diligence on the technology and its performance will be conducted, including eliminating potential adverse system effects and potential risks to reliability. As well, major modifications are required to the existing relaying and protection systems in SWO to accommodate the series compensating facilities.

Request:

Please provide all material collected and prepared with regards to the series compensation due diligence on technology and performance and the elimination of potential adverse system effects and potential risks to reliability.

Interrogatory No. 7

Ref. Exh. B / T6 / S5 / Appendix 5 / Page 52

Issue Number: 1 Project Need and Justification

Issue: 1.4

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: 2 Project Alternatives

Issue: 2.1

Have all reasonable alternatives to the project been identified and considered?

Issue Number 3.0 Near Term and Interim Measures

Issue:

3.1 Are the proposed near term and interim measures as outlined in the application appropriate?

3.2 Can the proposed near term and interim measures be utilized longer than the suggested two to three year time frame?

3.3 If these proposed near term and interim measures could be utilized for a longer period than proposed, could they (or some combination of similar measures) be

considered an alternative

Preamble:

“The IESO studies indicate that combination of GR and series compensation will provide sufficient capacity for transmitting the committed resources in the Bruce area to the Ontario grid should the new line be delayed. However, there would not be additional transmission capability for adding further resources in the Bruce area until the new Bruce transmission line is in place.”

Request:

1. Please provide a list of all potential “further resources” assuming that some of the “further resources” are from wind generation.
2. Kindly provide an explanation as to how the current electricity from wind generation gets on the grid.
3. Kindly provide a list and explanation of all methods for getting wind generated electricity onto the grid.

Interrogatory No. 8

Ref. Exh. B / T6 / S2 / Page 4

Issue Number: 1.0 Project Need and Justification

Issue:

1.3 Have all appropriate project risk factors pertaining to the need and justification (including but not limited to forecasting, technical and financial risks) been taken into consideration in planning this project?

1.4 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?

Request

If not already disclosed, please disclose all documents and information provided to the IESO for the system impact assessment of the new proposed transmission facility.

Interrogatory No. 9

Ref. Exh. B / T6 / S2 / Page 5

Issue Number: 2 Project Alternatives

Issue:

2.1 Have all reasonable alternatives to the project been identified and considered?

2.2 Has an appropriate evaluation methodology been applied to all the alternatives considered?

2.3 For all of the considered alternatives, does the evaluation methodology utilized include a cost benefit comparison as well as a comparison of all quantitative and qualitative benefits?

2.4

a) Have appropriate evaluation criteria and criteria weightings been utilized in the evaluation process for the alternatives and the proposed project and what additional criteria/weightings could be considered?

b) Have appropriate comparisons been carried out on all reasonable alternatives

with respect to reliability and quality of electricity service, including stability and transient stability levels, voltage performance and Loss of Load Expectation projections under normal and post-contingency conditions?

Preamble:

Power system analysis is an integral part of the transmission and distribution planning process. It is used by Hydro One to evaluate the capabilities of the existing network to deliver power and energy from generating stations to provide a reliable supply to customers. Two types of studies are used:

- a. Short-Circuit Studies: Short-Circuit Studies are used to determine of the impact of the Bruce to Milton Area customers at their points of connection to Hydro One.
- b. Load Flow Studies: The PTI PSS/E AC Load Flow Program was used to set up detailed base cases with the new 500 kV double circuit.

Request:

1. Kindly provide the two above-noted studies.
2. With regards to PTI PSS/E AC Load Flow Program, kindly provide any models prepared dealing with the increased generation being placed on the existing transmission system, with or without the use of Generation rejection, series compensation or shunt capacitors.