

**Hydro One Leave to Construct Application
(Bruce-Milton) Transmission Reinforcement Project
(EB-2007-0050)**

**Power Workers' Union
Interrogatory**

1.0 Project Need and Justification

Issue Number: 1.1

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

Ref.(a): Press Release by Bruce Power in Tiverton, Ontario dated January 10, 2008 in regard to "Reactor Power Increased on Unit 5" cited at <http://www.brucepower.com/pagecontent.aspx?navuid=1211&dtuid=83632>

Ref(b): Exh B/T1/S1/ P.3/lines 13 to 16

Ref (c): Exh B/T1/S1/ P.3/lines 16 to 18

Preamble:

(A) Ref.(a) states:

"...Reactor power on Unit 5 was raised by **three per cent** this week, an increase that is expected to produce enough new electricity to power a city the size of Owen Sound, Ont. Unit 5 becomes the third Bruce B Unit to be uprated following fuel-loading modifications that allow operators to safely raise the reactor power from 90 to 93 per cent. Earlier power hikes on Units 6 and 7 resulted in an approximately **30 megawatt** increases in output.... Reactor power on Unit 8 is expected to be increased by 2009..."

(B) Ref.(b) indicates that Hydro One has updated the current and expected generation capacity in its updated evidence filed November 30, 2007. The updated evidence states that the generation capacity at the Bruce Power Complex currently totals 4,700 MW (compared to 5060MW filed in the original evidence, i.e., four 980MW units at Bruce B and two 750MW units at Bruce A). Ref (b) also indicates a total of 700 MW of existing and committed wind generation through the Provincial Government's renewable energy initiatives by 2009 (compared to the original figure of 725).

(C) Ref.(C) indicates that projected in-service date of Unit 1 and 2 at Bruce A is 2009.

Questions:

1. Please state in megawatts the 3% increase in reactor power of Unit 5 of Bruce B stated in Ref (a) above
2. Please state in megawatts the total increase in reactor power of all Bruce A and B units achieved over the original capacity resulting from fuel-loading modifications stated in Ref (a)
3. Assuming further uprating such as that planned for Unit 8 in 2009 indicated in Ref (a) above is carried out, please state the total generation capacity of all the 8 units at Bruce A and B.
4. Please explain whether or not Hydro One's prefiled evidence and updated evidence has taken into consideration the increase in the total generation capacity of all the 8 units resulting from the increase in the reactor power indicated in Ref (a) and, therefore, the impact on the transmission capacity required out of the Bruce area assumed in Hydro One's current application.
5. Please provide explanation of the updated numbers in Ref (b) above compared to those filed in the original prefiled evidence with respect to the generation capacity in the Bruce area.
6. Please provide an update, if any, with respect to the in-service date of 2009 indicated in Ref (C).

Issue Number: 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?

Ref (a): Bruce Power New Build Project Environmental Assessment: Submission to Canadian Nuclear Safety Commission, January 2007, cited at (<http://www.brucepower.com/uc/GetDocument.aspx?docid=2339>)

Preamble:

Ref (a) indicates that Bruce Power has launched an environmental assessment (EA) into the construction of new reactors and that the Project description submitted in January 2007 was accepted the Canadian Nuclear Safety Commission (CNSC). Further, it is indicated that the Bruce New Build Project

would be sited entirely within the existing Bruce Power site, and would involve the construction and operation of several new nuclear reactors; these new reactors would generate up to 4000MW MW of electricity. The approximate in-service date for the Bruce New Build is indicated as 2016.

Questions:

7. Please explain the contribution, if any, that the applied for Bruce-Milton transmission reinforcement project will make in accommodating the potentially significant increase in generation in the Bruce area if and when the Bruce New Build project in Ref (a) is implemented. In answering this question, please consider different scenarios including, but not limited to, outages in the Bruce A and B units.

3.0 Near Term and Interim Measures

Issue Number: 3.1

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

Ref (a): Exh B/T6/S5/ Appendix 2 (Letter dated December 22, 2006 from OPA)

Ref (b) Exh B/ T 6/S 5/ Appendix 3 (Hydro One letter to the OPA dated January 17, 2007)

Preamble

Ref (a) indicates that the OPA recommended that Hydro One implement certain near-term measures (uprating existing 230 kV circuits from Hanover to Orangeville, and installing static or dynamic shunt capacitors), and interim measures (installing generation rejection for the Bruce generation, and possibly, installing series compensation facilities on the Bruce to Longwood and Longwood to Nanticoke 500 kV circuits) in recognition of the fact that the new 500 kV transmission line could not be built by 2009, when additional generation is added to the area.

In Ref (b), Hydro One indicated its commitment to proceed with these [Near term and Interim] measures, other than series compensation which is pending the results of a due diligence study to be undertaken by the OPA.

Questions:

8. Is Generation Rejection a general practice in the design of transmission systems? Please Explain
9. What are, if any, the safety, reliability, and security risks of generation rejection that are particularly relevant to nuclear generation?
10. What are, if any, the safety, reliability and security risks posed by the use of the proposed near term and interim measures for periods longer than those proposed in Hydro One's application?