

PROJECT ECONOMICS

In the following sections, the economic impact of the project is assessed from a transmission system perspective. The project is not designed to generate additional transmission revenues but has as its principal purposes allowing network access for additional committed and potential wind generation in the Bruce area and restoring the transmission network load transfer capability out of the Bruce Power Complex. These purposes support the provincial off-coal and generation supply diversity objectives, respectively.

Under the OEB's IPSP Filing Guidelines (EB-2006-0207, p. 9), the economic prudence of specific generation projects that were the subject of governmental procurement or OPA procurement prescribed by Ministerial directive issued prior to the date of the approval of the IPSP, such as the Bruce nuclear refurbishment and Bruce area wind generation projects (see Exhibit B, Tab 6, Schedule 5, Appendices 8,9,10 and 12), will not be assessed as part of the IPSP review process. For that reason, the economic assessment of the Bruce to Milton transmission reinforcement project is focused on the transmission aspects of the plan and does not include in the analysis consideration of the relative impact on commodity costs (benefits or costs) as a result of locating additional generating capacity in the Bruce area.

2.0 ECONOMIC FEASIBILITY

The proposed line facilities will be included in the Network pool for rate-making purposes with no customer capital contribution required, consistent with the provisions of Section 6.3.5 of the Transmission System Code. A 25-year illustrative discounted cash flow analysis is provided in Exhibit B, Tab 4, Schedule 4, pages 1-2. The results show that based on the estimated costs of \$635M in initial capital plus assumed ongoing operating and maintenance costs, the reinforcement project will have a negative net present value of \$630M with a profitability index (PI) of nil. The analysis assumes zero incremental loads and network

1 revenues attributable to the project for purposes of the assessment. This approach reflects the
2 fact that provincial Network pool peak load is forecast to remain essentially flat over the 25-
3 year evaluation period, after mandated provincial CDM reductions. Accordingly, while the
4 Bruce to Milton line will carry significant load from the refurbished nuclear and new wind
5 generators located or expected to locate in the Bruce area, that load will not represent
6 additional load to the pool, as it will replace load currently supplied from other generation
7 sources in the province. To be consistent with the pool view, the DCF analysis takes a
8 conservative approach and attributes zero load and revenue to the Bruce to Milton line. As
9 noted above, the project is not designed primarily to generate additional transmission
10 revenues but instead supports government generation supply diversity and off-coal objectives.

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12 Based on the given assumptions and results, the project will lead to an increase in the
13 Network pool rate over the life of the project, relative to the current rate level. The project's
14 year-by-year rate impacts are discussed in the following section.

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16 Consistent with the requirements of sections 6.3.3 and 6.3.4 of the TSC, the costs of future
17 connection facilities required for new wind generation capacity enabled by the Bruce
18 reinforcement project will be the responsibility of the specific generator customers at the time
19 of connection, and any required capital contribution will be assessed under the TSC's
20 economic evaluation guidelines at that point. The costs of such connection facilities and any
21 capital contributions related thereto have not been included in the costs for the Bruce
22 reinforcement project shown at Exhibit B, Tab 4, Schedule 2.

23 24 **3.0 RATE IMPACT ASSESSMENT**

25
26 The analysis of the Network pool rate impact has been carried out on the basis of Hydro
27 One's OEB-approved transmission revenue requirement and capital structure for 2008 based
28 on the OEB decision in EB-2006-0051, approved on September 28, 2007, and the OEB

1 approved uniform Ontario Transmission Rate Schedules per the OEB decision in
2 EB-2007-0759, issued on October 17, 2007. The Line Connection pool and Transformation
3 Connection pool revenue requirements would be unaffected by the new reinforcement, based
4 on the criteria used to allocate transmission costs to the three pools as approved by the Board
5 in the EB-2006-0051 decision.

6
7 Based on the proposed reinforcement's incremental cash flows, a net increase in the Network
8 pool revenue requirement will result once this project is included in the transmission rate base
9 upon coming in-service at the end of 2011. Except for a slightly lower revenue requirement
10 of \$37M incurred in the first year of in-service due to the half-year weighting of the added
11 capital, annual revenue requirements ranging from \$53M to \$59M will be experienced over
12 the first 25 years of the project's service life. The revenue requirements begin to decline over
13 time in line with the depreciating asset base beyond the 15th year of in-service.

14
15 These changes will lead to an increase in the Network pool rate of between 9.1% and 10.0%,
16 relative to the current rate over the first 25 years (again with a slightly lower increase in the
17 first year of 6.1% due to half-year capital weighting). All else being equal, as a result of this
18 project the provincial Network pool rate will increase by between 21 and 23 cents per kW,
19 from the 2008 level of \$2.31 per month, to between \$2.52 and \$2.54 per month over those
20 years (and 14 cents in the first year, to \$2.45 per month). After year 15 in 2026, as the
21 revenue requirements fall, the rate impact will similarly begin to decline (though with a lag
22 given the 2 decimal point rounding of the rate). The detailed analysis illustrating the
23 calculation of the incremental revenue requirement and rate impact over the first 25 years of
24 the project's life is provided in Exhibit B, Tab 2, Schedule 4, pages 3-4.

25
26 Similar to the approach used for the DCF analysis, the rate impact analysis includes zero
27 incremental network load based on Hydro One's long-term forecast which assumes flat load
28 growth in peak demand for the network pool after mandated provincial CDM reductions over

the 25-year evaluation period. As noted above, the primary purpose and benefit of the project is to provide generation diversity and support the government off-coal program.

In order to assess the impact of the proposed facilities on end-use residential consumers of electricity in Ontario, the transmission component of a typical residential customer bill has been approximated. For a typical residential customer in Ontario, the transmission component of the delivered cost of electricity is approximately 8% of the total energy bill and the network portion is about 58% of the total transmission bill. Accordingly, as shown in the table below, the impact of the proposed facilities on the delivered cost of electricity for the typical Ontario residential customer consuming 1000 kWh per month would be approximately 0.45% or \$6.48 a year. This impact does not include any consideration of the effect on commodity costs as a result of providing access to generation resources in the Bruce area.

Impact on Typical Residential Customer

A. Typical monthly bill (12¢ per kWh x 1,000 kWh per month)	\$120 per month
B. Transmission component of monthly bill (A x 8%)	\$9.60 per month
C. Network Pool share of Transmission component (B x 58%)	\$5.60 per month
D. Average Impact on Network Pool Provincial Uniform Rate over 25 year period	9.6%
E. Increase in Transmission charges (C x D) on typical residential customer bill	\$0.54 per month or \$6.48 per year
F. Net % increase on typical residential customer bill (E / A)	0.45%