

Osler, Hoskin & Harcourt LLP
Suite 2500, TransCanada Tower
450 - 1st Street S.W.
Calgary, Alberta, Canada T2P 5H1
403.260.7000 MAIN
403.260.7024 FACSIMILE

OSLER

July 17, 2008

Gordon M. Nettleton
Direct Dial: 403.260.7047
gnettleton@osler.com
Our Matter Number: 1099714

BY ELECTRONIC MAIL & COURIER

Ontario Energy Board
P.O. Box 2319
2300 Yonge Street
Suite 2700
Toronto, ON M4P 1E4

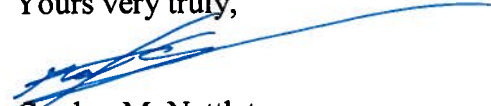
Attention: Ms. Kirsten Walli, Board Secretary

Dear Ms. Walli:

**Re: EB-2007-0050 – Hydro One Networks Inc. (“Hydro One”) – Bruce to Milton
Transmission Reinforcement Project**

Please find enclosed the Reply Argument of Hydro One pursuant to Procedural Order No. 11.

Yours very truly,


for: Gordon M. Nettleton
GMN:njm

c. All Interested Parties in EB-2007-0050

IN THE MATTER OF the *Ontario Energy Board Act, 1998*, S.O. 1998, c. 15, (Schedule B), (the “Act”)

AND IN THE MATTER OF an Application by Hydro One Networks Inc. pursuant to section 92 of the Act, for an Order or Orders granting leave to construct a transmission reinforcement Project between the Bruce Power Facility and Milton Switching Station, all in the Province of Ontario (the “Leave to Construct Application”)

**HYDRO ONE NETWORKS INC.
REPLY ARGUMENT
July 17, 2008**

OSLER HOSKIN & HARCOURT LLP
Suite 2500 – TransCanada Tower
450 – 1st Street S.W.
Calgary, Alberta T2P 5H1
Attention: Gordon M. Nettleton
Tel: (403) 260-7047
Fax: (403) 260-7024

INTRODUCTION

This submission is made in reply to the eight parties who have submitted written arguments opposing the relief requested by Hydro One in Application EB-2007-0050.¹ In reviewing these opposing submissions common issues and themes are relied upon to support the positions adopted. This Reply Argument is organized to address those matters, and in particular the topics set out below:

- transmission planning in Ontario,
- the required level of certainty for the OPA forecast,
- planning to nameplate capacity,
- the OPA financial model,
- reliability,
- relationship with the IPSP, and
- aboriginal consultation.

Hydro One submits that none of the opposing parties have been able to demonstrate with any reasonable degree of confidence that the public interest is best served by rejecting the requested relief. Leave of the Board to construct the Project should be granted because the Project has been and remains the best option when necessarily taking into account the factors of price, reliability and quality of service. No party has been able to demonstrate how any other option meets the need identified by the OPA, comports with the reliability standards of the IESO, and minimizes the price impacts otherwise accruing through locked-in energy.

Hydro One's application thus meets the requirements of the *Ontario Energy Board Act* (the "Act") and should be approved. Hydro One submits that such approval should be on the terms and conditions put to Hydro One's witnesses during the proceeding by Board staff and not on further conditions imposed by the Board, as some parties have suggested. To do otherwise, i.e., impose conditions in response to which Hydro One has not had the opportunity to provide evidence, would violate the principles of natural justice and fairness.

As raised by Board staff submissions, the critical question before the Board is whether the need exists. Hydro One views the three subsidiary questions to that central issue in these circumstances as follows:

1. Should generation from the Bruce B facility form part of the OPA's generation forecast?
Hydro One submits the answer is "yes," and this position is given substantial weight by

¹ The Fallis Group, the Ross Group, the Saugeen Ojibway Nations, Pollution Probe, Energy Probe, the Métis Nation of Ontario, Mr. Pappas and Mr. Barlow.

the recent government of Ontario announcement regarding Bruce B rebuild or new build.²

2. Should the 700 MW of planned generation from large wind projects in the Bruce Area also form part of the OPA's generation forecast? Hydro One submits the answer is "yes," because this amount represents only 50% of the wind potential for the area, only 60% of the applied-for generation in the IESO queue for the Bruce Area, and only 35% of renewable energy the OPA has been directed to actively procure in short order.
3. Should the Board accept that planning to nameplate capacity is appropriate for the Project? Hydro One submits that the answer is "yes", because sizing the transmission facilities to be able to carry the targeted amount of generation available is consistent with standard planning practices of the OPA/IESO, and this generation mix reflects policy choices of the province of Ontario. In addition, planning to nameplate capacity in the current circumstance recognizes the particular characteristics of the supply mix, namely nuclear and wind generation, in the Bruce area.

In addition to the core question of need, the Project will enhance the reliability of a stressed system and is more economically attractive than the so-called "better alternative" proposed by opposing parties.

There are clear differences between the positions of Hydro One and parties opposing the Project. Key determinations the Board must make are whether:

- the factors underpinning inclusion of Bruce B in the OPA forecast, coupled with the concurring announcement by the Province of Ontario, provide adequate certainty at this point in time to grant leave to construct;
- the OPA's forecast and Directed wind generation procurement is more credible than Mr. Russell's belief that there is a substantial risk that the IESO queue will culminate in less than 700 MW of installed large wind projects in the "fruitful" Bruce windshed if the Project is approved;
- it is acceptable to have adequate transmission capability to ensure capture of the full output of the wind power generators when the wind does blow, consonant with Ontario planning practice and policy choices;
- the IESO itself is more credible about system reliability and IESO standards than hired consultants strikingly unfamiliar with Ontario's electricity market and transmission system.
- the "better alternative" put forth by opponents to the Project can meet the requirements of the Ministerial Directives issued to the OPA in respect of procuring wind generation and minimizing congestion.

² Board staff submission, p. 4.

1. The Nature of Transmission Planning in Ontario

The premise of many of the positions advocated by parties to this proceeding is that the Board should either deny or defer approval of the applied-for facilities because there are significant gaps in the transmission planning process, and/or that the planning process has in some way been flawed. Nothing could be further from the truth.

As the OPA describes in its submission in this proceeding, the OPA is mandated to perform the long-term planning of Ontario's electricity system. The planning that identified the Project's need was conducted within a framework of policies, directives and legislative requirements. The Project was included in the scope of the initial studies for the OPA's Integrated Power System Plan ("IPSP"). See, for example, IPSP Discussion Paper 5 and IPSP Discussion Paper 7, prepared as part of stakeholder consultation, which assumed incremental transmission as a pre-requisite to any further development in the Bruce Area.³ With generation coming into service between 2009 and 2015, the need for the Project was deemed urgent and the OPA urged Hydro One to apply to the Board to allow for an in-service date of late 2011.⁴

In addition to the projected continuing nuclear generation from Bruce B units, Ministerial Directives directly shape the need for the Project, as set out in the OPA's submissions:⁵

- 1,500 MW of refurbished nuclear generation at the Bruce A plant. Bruce A is being refurbished pursuant to a contract between the OPA and Bruce Power which the OPA executed pursuant to a government directive dated October 14, 2005.
- 700 MW of committed wind generation. This 700 MW of committed wind generation was procured by the Government of Ontario under Renewable Energy Supply procurements I and II ("RES I" and "RES II"). These procurements were assumed by the OPA pursuant to government directives dated November 7 and November 16, 2005.
- 1,000 MW of planned wind generation. This 1,000 MW of planned wind is comprised of 300 MW of wind which was subscribed for pursuant to the OPA's Renewable Energy Standard Offer Program ("RESOP"). The OPA initiated RESOP pursuant to government directive dated March 21, 2006. The 700 MW balance of the 1,000 MW of planned wind represents 50% of the approximate 1,400 MW of potential large wind sites (greater than 10 MW in size) which the OPA identified in the Bruce area. For planning purposes, the OPA only included 50% of the 1,400 MW identified in order to account for development uncertainties. [citations omitted]

The OPA forecast is also shaped by the Supply Mix Directive, which directed the shape of the IPSP, and the August 27, 2007 Directive, issued in response to the filing of the IPSP application. The OPA's submissions explain in detail the interrelationship between this collection of six Ministerial Directives and the need for 3,100 MW of incremental transmission capability.⁶ It is important to note, however, that because these are pre-IPSP directives, pursuant to the Board's IPSP filing guidelines they are not to be considered in the course of the IPSP.

³ See, e.g., Exhibit B, Tab 6, Schedule 5, Appendix 5, p. 46 and Appendix 6, p. 67.

⁴ Exhibit B, Tab 6, Schedule 5, Appendices 3 and 4.

⁵ OPA submissions, para. 8.

⁶ OPA submissions, paras. 13-17.

The Saugeen Ojibway Nations (“SON”) suggest that Hydro One and/or the OPA should have second-guessed the conclusion of urgency⁷ and instead presented a spectrum of needs to the Board, each need with its own suite of potential alternatives:

Further, in light of the uncertainty respecting future generation in the Bruce area, it was incumbent on Hydro One to consider alternatives based on various reasonably foreseeable future generation scenarios in the Bruce area. Hydro One ought to have modeled scenarios in which elements of “planned” generation were not approved or developed, or were approved or developed within different time frames.

Hydro One remains of the view that OPA’s forecast is robust, conservative and reasonable and submits that the evidence amply supports this conclusion.⁸

The SON and Pollution Probe advance a so-called “better alternative.” It consists of augmenting the existing Bruce to Longwood and Longwood to Nanticoke 500 kV line with series capacitors at the end of 2011, following the implementation of the interim measures, to increase the transfer capability from 5,385 MW to 6,326 MW, and then to further use generation rejection during normal operations to raise the transfer capability to 7,076 MW.⁹

For its part, the SON suggest that Ontario may choose to proceed with the Project sometime post-2012 after series capacitors are installed, because there is insufficient certainty about the need at present. This would:

...allow OPA and Hydro One to incur a much lower cost in the near term to meet the existing and committed need and to assess the need for further transmission upgrades as developments of actual generations from the Bruce Area become more certain.¹⁰

However, the SON’s “wait and see approach” does not properly take into account locked-in energy that would result from the delay and duplicated costs, thereby exacerbating price, quality and reliability risks, all to the detriment of all ratepayers.

There already exists a substantial degree of certainty that the 1,700 MW of forecast wind as well as continued generation from Bruce B (or equivalent) will be present in the future. As the OPA commences procurement of the targeted wind pursuant to the Ministerial Directives on the record, the SON and Pollution Probe “alternative” would lead to higher total costs as compared to the Project, resulting both from locked-in energy and duplication of facilities once the line is built. That is neither prudent nor cost effective planning.

This is why Hydro One requested the SON’s expert, Mr. Russell, to effect the analysis presented in Undertaking J14.1. The green line on that graph clearly shows that implementing the series capacitor option and then proceeding with the Project is a much more expensive option than to build the line now, as represented by the blue line.

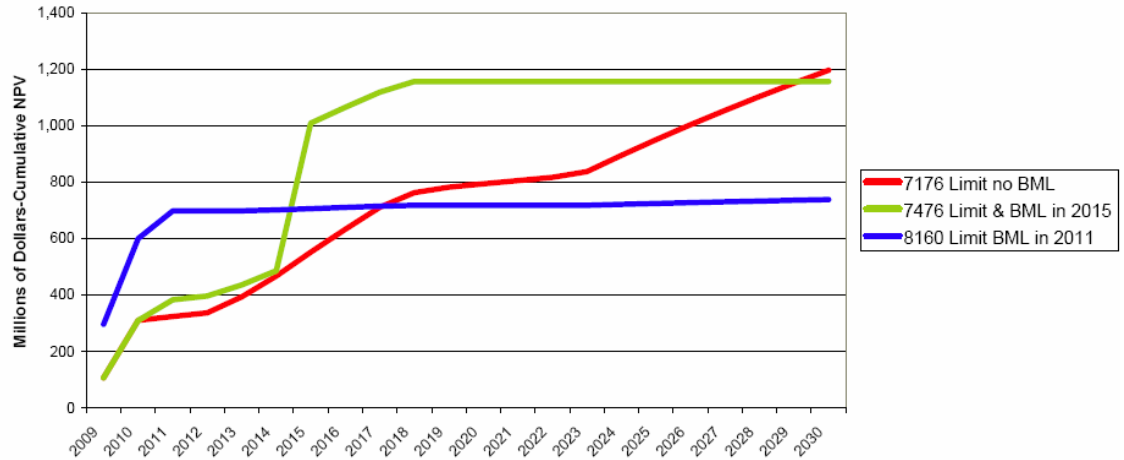
⁷ Exhibit B, Tab 6, Schedule 5, Appendix 2, p. 2 (letter from OPA to Hydro One).

⁸ Cite AIC.

⁹ As presented in Hydro One’s Argument in Chief, p. 51; see also exhibit C, Tab 2, Schedule 16.

¹⁰ SON submissions, p. 27.

J 14.1 Construction on Line in 2015, Refurbish B by 2019



Undertaking J14.1

Moreover, it is uncertain that the series capacitors would be useful after their installation. While the SON speculate that they could be, it is the evidence of the OPA that their usefulness would only arise if generation capacity incremental to 8,100 MW was installed.¹¹

Additionally, the nature of the planning process is to ensure potential alternatives meet reliability standards, and to reject those potential alternatives that do not provide for adequate reliability. In Hydro One's view, the Board should not rely on any submissions concerning other potential alternatives that have not and do not have the support of the IESO, because the IESO is mandated in Ontario to ensure reliability is maintained. The IESO has indicated that the use of generation rejection under normal conditions, as would be required by the Pollution Probe / SON "alternative," breaches reliability requirements and is less preferable from an operational standpoint as well. Specifically in reference to the Pollution Probe / SON "alternative," the IESO has submitted: "In the exercise of its statutory and regulatory responsibilities the IESO cannot countenance such a practice."¹²

2. The Level of Certainty Required for the OPA Forecast

2.1 Absolute Certainty is not the Standard to Apply

Parties opposing the Project suggest that the issue for the Board is whether "certainty" is sufficiently present on the record to allow the Board to grant leave to construct. However, Hydro One submits that a standard of certainty is not, and ought not to be, applied in the context of a leave to construct application for a network reinforcement. At worst, it would lead to the absurd result that transmission network upgrades must be delayed so as to follow generation investment, with new generation development sitting idly by as it waits for transmission capability to be put in place. At best, given the lengthy planning and approvals processes, it would lead to needless delay in the addition of needed generation and transmission capacity. While a certainty approach

¹¹ Transcript, vol.3, May 5, 2008, p. 56, lines 17-22.

¹² IESO submissions, p. 7.

may be appropriate for dedicated connection facilities in some circumstances, it is not appropriate for network reinforcements such as the Bruce-Milton project, which of necessity are planned on the basis of long-term forecasts. The approach recommended by intervenors would accordingly undermine standard planning practice as well as government policy, and be inconsistent with the public interest under s. 96(2) of the Act regarding reliability and quality of electricity service. The “chicken and egg” issue of whether transmission should follow generation or vice-versa is repeated throughout intervenor submissions (e.g., Energy Probe’s proposed condition of waiting for CNSC licences for any Bruce B refurbishment or new build).

In Hydro One’s view the issue is answered by simple consideration of the planning mandate of the OPA. Leave to construct applications are premised upon an identified purpose and need. In this application the need results from the OPA’s forecast, and the Project should not be faulted merely because it is based upon a forecast. The need has been identified as urgent and comprises transmission required to service generation coming into service between 2009 and 2015. It simply does not make sense for the Board to set perfect certainty as the standard to expect from a planning authority whose mandate comprises long-term forecasting, an area in which there are necessarily elements of uncertainty.¹³ As set out in the submissions of the Power Workers’ Union (“PWU”):

By definition, the Board is considering circumstances which will occur in the future, where uncertainties are inevitable. This Board regularly makes important decisions premised on the basis of forecasts of future events.¹⁴

Indeed, past leave to construct decisions by the Board have required that the need meet a standard of reasonableness, not certainty. For example, in Reasons for Decision EB-2006-0242 the Board relied upon a load growth forecast (including as presented in IPSP Discussion Paper 5 and an IESO System Impact Assessment) to establish the need for the 230 kV lines proposed by Hydro One. In Reasons for Decision EB-2004-0476 the Board was unable to conclude that there would be a positive net economic impact as a result of the project, but approval was granted nonetheless on the basis of improved reliability and quality of service. Again, leave was granted in an absence of certainty. That is the very essence of the forecasting process and the planning mandate undertaken by the OPA. These facts are simply ones that are either not well understood or have been ignored altogether by those witnesses new to the Ontario jurisdiction.

The uncertainty that is complained-of in the identified need relates to two areas of the forecast: Bruce B nuclear generation, and the likelihood of planned wind generation being installed.

2.2 Bruce B

Board staff have requested that parties suggest how “the Board might incorporate that uncertainty [regarding the refurbishment of the Bruce B site] into an order.”¹⁵ First, Hydro One is of the view that it is inappropriate to impose conditions upon it that were not put to Hydro One’s witnesses, because Hydro One is then deprived of the opportunity to provide evidence in respect of the consequences and effect upon the Project from such conditions. That would

¹³ Hydro One Argument in Chief, p. 10.

¹⁴ PWU submissions, p. 18.

¹⁵ Board Staff submissions, p. 4.

deprive it of the opportunity to present its case and be heard in full, violating elements of natural justice and fairness.¹⁶ This is discussed more particularly below under Heading 9.

Second, Hydro One is of the view that the Board need not issue conditions relating to Bruce B, because it is entirely appropriate for the Board to grant leave to construct based on the robustness of the OPA's generation and transmission forecast, which takes into account the likelihood of continued levels of nuclear generation from Bruce B units. As set out in Hydro One's Argument in Chief:¹⁷

The continuation of Bruce B generation output is assumed to exist based on:

- The continued need for nuclear electricity generation in Ontario to serve baseload electricity requirements of 14,000 MW and to this end the Supply Mix Ministerial Directive directs the OPA to make plans for such a outcome;
- Grid access and existing infrastructure at the Bruce Complex allows continued historical levels of nuclear output (apart from transmission transfer capability);
- The local Bruce Area community supports the continued and expanded nuclear generation; and
- The operator of the Bruce nuclear facility has expressed interest in continuing nuclear generation in the context of either Bruce B refurbishment and/or replacement. [Citations omitted]

These factors were spoken to and affirmed in the announcement of the Ministry of Energy and Infrastructure cited by Board staff:¹⁸

As part of Ontario's energy plan to maintain 14,000 MW of nuclear generation capacity the Bruce site will continue to provide approximately 6,300 MW of baseload electricity through either the refurbishment of the Bruce B units or new units at Bruce C.

What more certainty could be required from Hydro One or the OPA at this point? Indeed, Bruce Power states:

"arguments by some parties during the proceeding that it is unreasonable for the OPA to assume that the existing level of Bruce Nuclear generation will continue past the expected retirement date of Bruce B units are unfounded."

The OPA's forecast is more robust than what any opposing parties have supported because only the OPA forecast has taken into account, in a reasonable and prudent manner, all expected transfer capability requirements out of the Bruce. Ignoring factors such as Bruce B and planned wind does not make for a robust forecast.

¹⁶ See, e.g., *Union of Nova Scotia Indians v. Maritimes and Northeast Pipeline Management Ltd.* (1999), 19 Admin. L.R. (3d) 223 (Fed. C.A.); *Flamborough v. Canada*, [1987] F.C.J. no. 460 (F.C.A.)

¹⁷ Hydro One Argument in Chief, p. 16.

¹⁸ Board Staff submissions, p. 4.

The SON suggest that no credence should be given to the probability of Bruce B generation because Bruce Power and the Ministry of Energy did not participate in the hearing, and the PowerPoint presentation of Duncan Hawthorne (which the OPA provided as the public information it used to confirm an assumed 2018 start date for the retirement of Bruce B units, following private discussions with Bruce Power) was “poor, outdated and imprecise information.” The SON continues, suggesting that “listening to news reports and press releases” does not provide any evidence in respect of the future of the Bruce Complex, or any related timeline.¹⁹ Pollution Probe submits that “only a binding directive or contract that will clearly result in refurbishment or replacement of Bruce B” will do,²⁰ and the Ross Group similarly concludes the announcement is insufficient.

This stance contrasts with the submission of Bruce Power that such concerns are “unfounded.” The reasonableness of the inclusion of Bruce B generation in the OPA forecast is undiminished by the scepticism of opposing parties. Rather, what these parties suggest is that the Board ought to demand absolute certainty before granting leave to construct. As discussed above this is not the appropriate standard to apply.

Aside from the government announcement, the SON also refers to the above four factors from Hydro One’s Argument in Chief which underpin the OPA’s inclusion of Bruce B generation in its forecast, namely the Supply Mix Directive, Bruce complex infrastructure, Bruce Area community support, and the interest of Bruce Power. The SON states that these reasons are “hardly the quality of sophisticated generation forecasting or planning that one would expect.”²¹ The SON again attempt to suggest that the standard the Board ought to adopt is one of absolute certainty and that the Board ought not to approve the OPA forecast.

Hydro One reiterates that the appropriate standard is the reasonableness of the OPA’s forecast, and the four points should give comfort to the Board that this forecast is robust. The government of Ontario has made statements that comport with the position of the OPA and Hydro One. It requires little imagination to understand why either Bruce B refurbishment or a new build would take advantage of existing infrastructure. Moreover, if the SON was concerned that this infrastructure was not in place, interrogatories or questions and cross-examination could have been posed and ably answered. Similarly, despite the SON’s assertion that local community support is “obviously wrong” and “unsubstantiated,” the SON have not provided any evidence to support such speculation and conjecture. What evidence does the SON rely upon to support the suggestion that the municipality of Kincardine or the surrounding area is opposed to Bruce B refurbishment or new build? There is simply none on the face of this record to support such positions or to suggest that the evidence of Hydro One is not to be believed.

The Ross Group suggests that the Supply Mix Ministerial Directive to the OPA does not require it to plan for 14,000 MW, such that total nuclear generation in the province may decline. The SON similarly suggest that the OPA has misinterpreted the Supply Mix Directive:

¹⁹ SON submissions, pp. 5-6.

²⁰ Pollution Probe submissions, p. 13.

²¹ SON submissions, pp. 7-8.

[The] mis-reading of the Supply Mix Directive...apparently led Mr. Chow to testify that Bruce B would need to be refurbished or replaced, because there is no other way to ensure that the Directive could be complied with.²²

Hydro One disputes this characterization of Mr. Chow's testimony. Nowhere does Mr. Chow state that there is no other way for the Directive to be complied with, but rather that the most reasonable assumption when considering nuclear generation distribution in the province was that Bruce B generation would continue. The government announcement cited by Board staff refers to that 14,000 MW as being "Ontario's energy plan to maintain 14,000 MW of nuclear generation capacity," [emphasis added] and states that Bruce B generation will continue by way of refurbishment or rebuild, consistent with Hydro One's position.²³

2.3 Planned Wind

Board staff also asked parties to address the uncertainty of the construction of planned large wind generation facilities, to which the OPA allocated 700 MW in its generation and transmission planning forecast.²⁴ Mr. Russell, for example, suggests the Board ought to require that contracts and permits from wind developers be on the record before being satisfied that the 700 MW forecasted by the OPA will actually take place, stating "so the fact that someone is in the queue doesn't mean that they are going to hang in there and make a bid and go to contract."

First, Hydro One repeats that it would be inappropriate to impose conditions that have not been put to its witnesses during the hearing process. Second, again, this "uncertainty" has already been taken into account by the OPA: the 700 MW is only 50% of the 1,400 MW identified by the Hélimax study commissioned by the OPA.²⁵ Furthermore, this projected 700 MW of generation is backstopped by the IESO queue:

813 MW of generation in the queue presently have their System Impact Assessment ("SIA") on hold, and there is an additional 1,498.4 MW of generation in the queue in the Bruce Area.²⁶

Hydro One submits that to require more certainty in the circumstances would be unreasonable, and Mr. Chow has testified that, from a transmission planning perspective, the Project is already late.²⁷

MR. CHOW:...I believe that there is a pressing need, starting 2009 and reach the maximum level at 2013, that this transmission line has to address. I think we don't want to lose sight of the fact that there is an urgent need right now. It is not something in 2020. [emphasis added]

²² SON submissions, p. 7.

²³ Transcript, vol. 4, May 6, 2008, pp. 21-24.

²⁴ Board Staff submissions, p. 6.

²⁵ Hydro One Argument in Chief, p. 7, footnote 11.

²⁶ Hydro One Argument in Chief, p. 8. See also Exhibit K10.1, tab 13, pp. 11-12; heading 2 lists all Bruce Area wind projects whose SIA is on hold and heading 3 holds Bruce Area projects in the queue.

²⁷ Transcript, vol. 4, May 6, 2008, p. 27, lines 3-7; vol. 5, May 7, 2008, p. 173, lines 19-21.

...

We believe that's such an urgency that we cannot await the outcome of the IPSP, so we said it is proceeding as a stand-alone application before the IPSP.

The OPA's generation and transmission capacity forecast is something that is more than an academic exercise: the OPA will be the counterparty to each of the above-described nuclear and wind generation contracts. It is hardly the case that the record lacks sufficient certainty regarding the expected generation out of the Bruce. The OPA appeared in this proceeding for over nine days of cross examination and the OPA is the very party who is and will be contracting for such generation supply. It is not simply the case that OPA has established a forecast but, instead, the OPA intends to execute on the basis of this forecast. The OPA is not a passive observer in this process, but rather will be *active* in procuring these contracts.

The reason the OPA will be active in procuring these generation contracts is because it must meet the requirements of Ministerial Directives, notably the August 27, 2007 directive requiring the procurement of 2,000 MW of renewable power, for which contracts must be in place by 2011.

The Ross Group, however, suggests that the August 27, 2007 Ministerial Directive should have no bearing on this proceeding because renewable energy need not be wind energy and wind energy need not come from the Bruce Area.²⁸ The SON state that the OPA only recognizes the 700 MW of planned large wind projects as a "potential" resource, and that it is unconnected with the August 27, 2007 Ministerial Directive because there is only an "unsubstantiated reference by Mr. Chow."²⁹ Notwithstanding that this is the sworn testimony under oath of the OPA's Director of Transmission Integration, this ignores Hydro One's interrogatory response to Board staff, found at Exhibit C, Tab 1, Schedule 2.1.1, which provides more details about the 700 MW of planned wind.

The OPA's allocation of one third of the Directed 2,000 MW to Bruce Area planned wind is reasonable because 2,000 MW is a large amount of power to be procured in a short time and the OPA has identified wind energy as being a major component of this renewable power. The OPA has also identified the Bruce Area as one of Ontario's "most fruitful windsheds."³⁰ This testimony is uncontroverted by any of the intervenors and is the best evidence before the Board.

Furthermore, this approach is confirmed and supported by the Canadian Wind Energy Association ("CanWEA") in its submission.³¹ CanWEA states that the "Bruce Area has some of the best wind resources in Ontario" and "concerns raised by Board staff about the likelihood of development based on the fact that no contracts have been executed etc. for wind projects in the Bruce Area should be discounted."

²⁸ Ross Group submissions, p 7.

²⁹ SON submissions, p. 9.

³⁰ Transcript, Vol. 2, May 2, p. 70 lines 8-18.

³¹ CanWEA submissions, paras. 4, 8-11.

3. Planning to Nameplate Capacity is Appropriate

Board staff state that they “seek comments from parties as to whether Hydro One has provided sufficient support for the planning assumptions,”³² including planning transmission capability to meet nameplate generation capacity.

Before addressing the reasons supporting planning to nameplate capacity, it is noteworthy that in discussing the Hydro One and Pollution Probe financial models, each of which calculated the locked-in energy resulting from potential Project alternatives, Board staff also submits “for the purposes of its cost benefit analysis [Hydro One] assumed 100% capacity factors and results in a positive cost benefit ratio.” This is not correct. The OPA used nameplate generation capacity to plan the required transmission capability to accommodate those times that periods of peak nuclear generation and peak wind generation coincide, as indicated on the record by Exhibit C, Tab 12, schedule 20. This is different from the methodology used in the OPA’s financial model.

The model used three years of actual generation data for the present six units at the Bruce Complex to determine a probabilistic profile of generation. This profile was extrapolated to cover the in-and-out schedule of the Bruce A and B units over the forecast period.

Similarly, a wind generation profile was created for use in the model and sourced from the AWS Truewind Report of April 13, 2007. As described in Hydro One’s Argument in Chief,³³ and by Mr. Chow during the hearing,³⁴ this report used climate data for the past 20 years to simulate the output of three virtual wind farms in the Bruce Area and was used in the model to represent the output and variability of 1,700 MW of wind generation.

The model then conducts a mathematical convolution to combine the two generation source profiles. The result is further convolved with a probabilistic transmission capability profile also derived from historical operating information, as set out in undertaking J7.1. Accordingly, capacity factors are not used, contrary to Staff’s assertion.

With respect to the appropriateness of the use of nameplate capacity to plan transmission capability, the Ross Group asserts that is an “over-design.”³⁵ However, the OPA’s approach, the long-standing planning approach in Ontario, is that this is not an over-design if one wishes to capture the coinciding peaks of nuclear and wind generation, i.e., all of the available generation.

Hydro One explained in an interrogatory response to Board staff that:

Transmission capability is planned based on peak generation and load. It is not appropriate to plan only for averages. In the case of a system that consists of only nuclear and wind generation, it is assumed that nuclear is generating nearly constantly at its maximum output and that wind varies from a minimum output of 0 to a maximum of its installed capacity. The peak condition for this system is when the wind is generating at the maximum of its installed capacity. Therefore,

³² Board staff submissions, p. 8.

³³ Hydro One Argument in Chief, p. 30.

³⁴ Transcript, Vol. 9, May 9, 2008, p. 135 lines 7 - 18.

³⁵ Ross Group submissions, pp. 8-9.

the peak generation that defines the need is the sum of the installed capacity of the nuclear and wind generation. On this basis, the shortfall in transmission capability is the difference between the installed capacity and the transmission capability.³⁶

During the first Technical Conference, Mr. Chow explained “I would believe you will ... frequently see the wind at maximum output along with the maximum output of the nuclear generation at the same time”³⁷ and filed an exhibit of this as an example during the first day of the oral evidence phase of the hearing.³⁸ On the third day Mr. Chow repeated that “the criteria and standard still is to plan a transmission system so you could deliver the full installed capacity of the resources.”³⁹ The two basic reasons that underlie this planning practice are described more particularly below.⁴⁰

The first reason is the avoidance of congestion. Congestion results in generation which is unable to access the grid and represents “bottled generation,” which must be replaced by other generation on the system, to which there is an economic cost. The mix of nuclear and wind resources in the Bruce Area is unique. The Market Rules operate such that wind generation will never be constrained on an economic basis as a result of congestion but, in practice, will only be constrained-off for reliability reasons.⁴¹ However, the only other generation source in the Bruce Area is nuclear generation, which is difficult to constrain on an economic basis because nuclear units may only ramp up or down within a range of about 50 MW, failing which the unit may “poison out” and be off-line for several days.⁴² As such, nuclear generation cannot be readily backed down to accommodate wind generation. Accordingly, when the wind blows, if congestion results and control action is required to maintain reliability, it will be wind that is likely to be constrained off the system by the IESO. The prospect of congestion will harm both the commercial development of the nascent Ontario wind market, as well as system reliability. Opposing parties emphasize that congestion reduction pursuant to the Supply Mix Directive must be cost effective. However, the Project is precisely that: every result that has compared the Project to the series capacitor/generation rejection alternative has demonstrated that, over time, the Project is the preferred option on an economic basis.

The second reason that planning to nameplate capacity makes sense is that capturing all of the available wind and nuclear generation reflects policy choices made by the Ontario government. Wind and nuclear generation are both emissions-free (with respect to air). The replacement of constrained wind and/or nuclear generation is generally done by gas-fired peaking plants, or potentially local or extra-provincial coal-fired generation, all of which result in air emissions, and would frustrate these policy choices.

³⁶ Exhibit C, tab 1, schedule 1.6(iv), p. 4.

³⁷ Transcript, Technical Conference day 1, Oct. 15, 2007, p. 161 lines 10-12.

³⁸ Exhibit K1.1.

³⁹ Transcript, vol. 3, May 5, 2008, p. 139 lines 13 – 15.

⁴⁰ For a detailed explanation, see Hydro One Argument in Chief, p. 18 and OPA submissions, pp. 13-16.

⁴¹ Hydro One Argument in Chief, p. 43.

⁴² Hydro One Argument in Chief, p. 18.

The OPA's approach was supported by the PWU for the reasons presented below:

[T]he recommendation from the OPA and the IESO to plan transmission with the objective of delivering the full installed capacities in this application emanates from the specific attribute of planning for a combination of nuclear and wind resources. It may be theoretically possible to contemplate transmission planning for a capacity that is less than the nameplate capacity in situations involving other combinations of types of resources. However the generation in question here is a combination of nuclear and wind generation. Nuclear generation is a base-load generation that should be assumed to operate continuously, with limited flexibility to ramp-up or down. Wind generation is a non-dispatchable resource, which runs intermittently and the output of which is controlled by the wind, not the transmission system operator. This means that if the transmission system is built to deliver less than the nuclear and wind nameplate capacity, then generation will need to be constrained when nuclear is running at 100% (which is often) and wind is generating at or near full capacity.⁴³

For its part, Pollution Probe describes designing transmission capability to nameplate generation capacity for wind generation as “wasteful”. However, the nature of wind is that it is intermittent. It is characterized by surges and idle periods. The Province of Ontario has made a choice to have it in the supply mix, as evidenced by the Ministerial Directives issued to the OPA. It is therefore anomalous to suggest designing transmission capability to not accommodate projected wind generation capacity.

Indeed, once the choice is made to plan to accommodate all available generation, the applicable NPCC standard requires that transmission capable of transferring the planned-for generation be put in place. This point was understood by Pollution Probe neither in its cross-examination of Mr. Falvo, nor in the subsequent incorporation of that testimony in Pollution Probe's submission. Pollution Probe states “it appears that the IESO is relying on the reference to ‘generation conditions expected to exist for the period’ as justifying nameplate capacity planning.”⁴⁴ This is true, subject to the initial determination of the extent of the generation that is planned to be captured (in the case of Ontario, by the OPA). In view of the Supply Mix Directive and the nature of renewable energy, the OPA seeks to obtain the full generating capacity of installed generation. Accordingly, the required transmission capability is nameplate capacity, to accommodate those instances where generation peaks coincide.

In cross-examination Mr. Klippenstein characterized this policy choice as reflecting the “sunk costs fallacy”⁴⁵ and “throwing good money after bad.”⁴⁶ However, this issue of “waste” – of available but unused generation versus available but unused transmission capability – has been evaluated by the OPA's economic model, which shows designing for nameplate capacity to be the stronger economic option. In other words, the concern about the sunk cost fallacy has been considered and satisfied.

⁴³ PWU submissions, pp. 27-28.

⁴⁴ Pollution Probe submissions, p. 15.

⁴⁵ Transcript, vol. 3, May 5, 2008, p. 75, lines 13-14

⁴⁶ Transcript, vol. 3, May 5, 2008, p. 76, lines 1-5.

Pollution Probe also suggests that it is extremely rare for the wind in a large geographic region to blow such that all wind generation locations throughout the area are producing at 100% of capacity all at the same time. This is likely to be true, of course. But the question left unanswered by Pollution Probe is, by how much less than 100% of capacity should the transmission system be designed in order to reflect that fact? Messrs. Fagan and Lanzalotta suggested using a capacity factor of 50% but they were unable to substantiate that number or to sponsor any evidence that demonstrated the Bruce Area and the shore of Lake Huron had a high diversity of wind. Moreover, the Pollution Probe series capacitors “alternative” is premised on a 50% capacity factor along with increased use of generation rejection, which as discussed below breaches IESO reliability standards. It is one thing to decide to forego some peak generation – which would frustrate policy choices already made – but quite another to imprudently suggest gambling \$100 million to install what are likely to be redundant series capacitors (as Pollution Probe does) based on a fictional capacity factor of 50%.

Similarly, Pollution Probe suggests that “at many times one or several [nuclear] units will be out of service or not performing at 100% of design capacity” to justify imposing a capacity factor on nuclear generation. Its experts, however, have no experience in CANDU reactors.⁴⁷ The evidence is that in the event that there is transmission congestion, nuclear units cannot functionally ramp down more than 50 MW below their maximum output, and the refurbished nuclear units are used to meet baseload electricity generation requirements, running continuously at maximum capacity for days at a time.⁴⁸ This characteristic results in coinciding nuclear and wind generation peaks that the OPA seeks to design the system to capture.

The Ross Group suggests that the failure by Hydro One or the OPA to refer to international planning standards that corroborate designing transmission capability to generation capacity is a fatal error.⁴⁹ However, Messrs. Lanzalotta, Fagan and Russell were cross-examined on Texas,⁵⁰ Alberta⁵¹ and California⁵² wind transmission capability planning, respectively, and in none of those cases could any of those experts contradict the use of nameplate capacity in each jurisdiction.⁵³ If planning to a standard other than nameplate generation capacity was the norm for wind generation, Messrs. Lanzalotta, Fagan, Russell and Brill each had the opportunity to make such evidence the subject matter of their direct evidence. None of these experts chose to do that.

⁴⁷ Transcript, vol. 13, June 4, 2008, p. 55, lines 1-4.

⁴⁸ Technical Conference, vol. 1, October 15, 2007, p. 161, lines 7-12.

⁴⁹ Ross Group submissions, pp. 5-6.

⁵⁰ Transcript, Vol. 13, June 4, 2008, p. 93 line 11 – p. 97 line 27.

⁵¹ Transcript, Vol. 13, June 4, 2008, p. 97 line 28 – p. 104 line 14.

⁵² Transcript, Vol. 14, June 11, 2008, p. 175 line 6 – p. 177 line 1.

⁵³ See generally Exhibit K10.1 tabs 7-12 and 14-16.

4. The OPA Financial Model is More Robust

Board staff invited parties to comment “as to the appropriateness of the cost benefit analysis by Hydro One” and “any uncertainties.”⁵⁴ Hydro One notes that the second technical conference contained an approximately 80-slide PowerPoint presentation explaining how the OPA financial model operates.⁵⁵ The model was the subject of more than a day of cross-examination by both counsel and experts, and resulted in the provision of over 40 pages of interrogatory responses. Hydro One submits that the Board should have confidence in the robustness and accuracy of the OPA model.

Board staff noted Pollution Probe’s concerns relating to “partial outages” by improperly being a “two-step” model, spatial diversity of wind in the Bruce Area, and failure to associate transmission penalty data with suspected seasonal variations. The so-called “partial outages” are discussed immediately below, whereas the latter two factors are considered in the discussion of the SON submissions.

On the strength of the evidence of experts who have no experience with the operations of CANDU nuclear reactors, and in direct contradiction to sworn testimony provided by Mr. Chow during the two days of the second Technical Conference, Pollution Probe states that the two-state nature of the OPA’s model is “naïve rather than credible” because it ignores so-called “partial outages.”⁵⁶ Exhibit K13.1 shows distribution curves reflecting the 2007 performance of each of the six operating Bruce units, as reflected by the transmission data contained in Undertaking J7.1. When the curve is at zero, the unit is “off.” When the curve is within 50 MW of its MCR, the unit is “on”⁵⁷ (the theoretical graph of a perfect two-state model would resemble a box, and hence the more these curves resemble two straight lines with a 90 degree angle, the more appropriate the two-state model is). The model takes the frequency with which each unit is actually on or off into account with the probabilistic generation profiles, based on three years of historic operating data. As a result, and because the model does not assume that every unit at the Bruce complex generates all the time, Pollution Probe’s concern that the model does not reflect aggregate generation of the Bruce nuclear complex is satisfied.⁵⁸ Furthermore, it is risible to suggest that the two-state model does not reflect nuclear unit performance given the shape of the curves in Exhibit K13.1 and as reproduced below.

Consideration of the graphs demonstrates that the vast majority of each unit’s time is spent either off or generating at its MCR, with very little time at a fractional value.

⁵⁴ Board staff submissions, p. 9.

⁵⁵ Exhibit K7.1.

⁵⁶ Pollution Probe submission, p. 5.

⁵⁷ Mr. Fagan also characterized the zone when units are up to 50 MW below their MCR as comprising “partial outages”: Transcript, vol. 13, June 4, 2008, p. 146, lines 16-19. While the two-state model assumption does not take the zone into account, it also does not take into account data that indicates when units marginally exceed their MCRs.

⁵⁸ Hydro One Argument in Chief, p. 33; transcript, Vol. 7, May 9, 2008, p. 62 line 17 - p. 64 line 13.

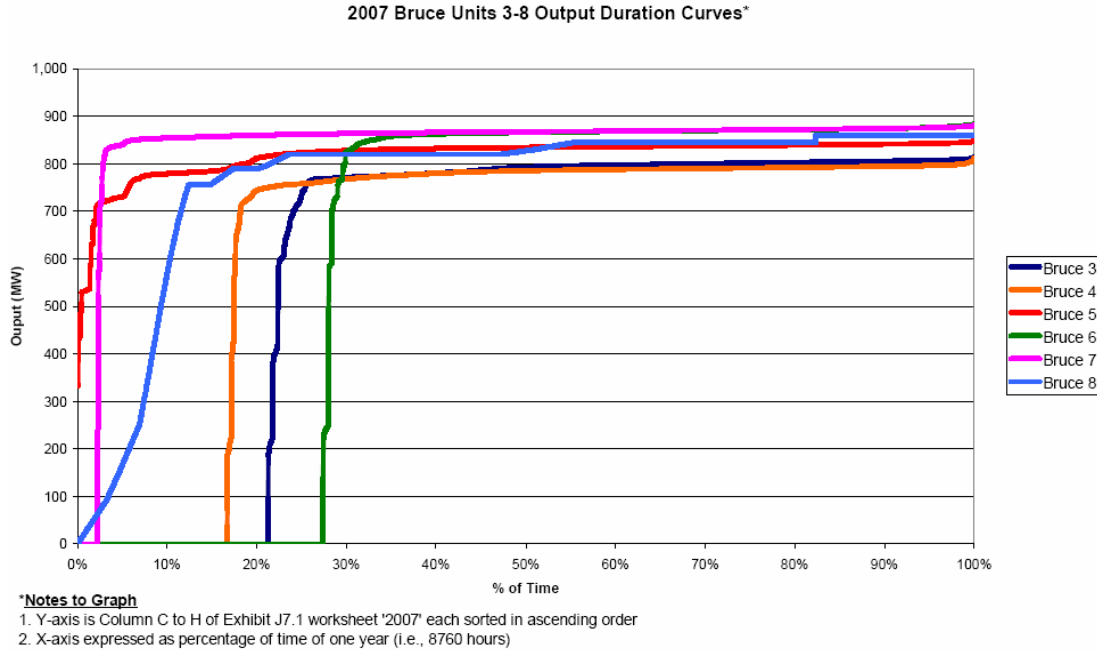
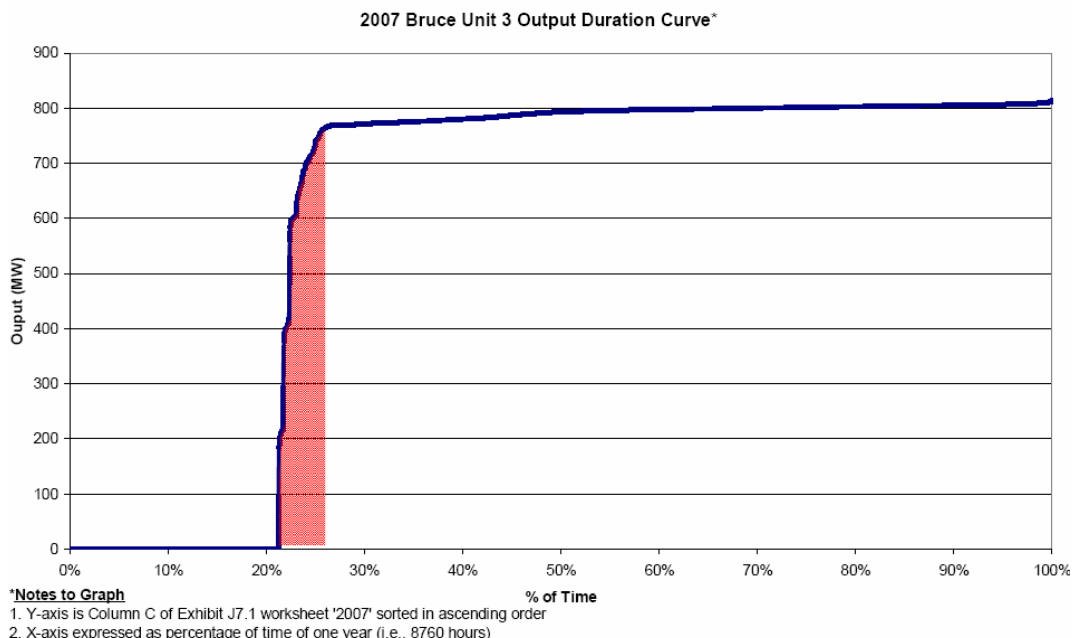


Exhibit K13.1, page 1

Mr. Fagan's analysis, however, does not appear to recognize this. He describes the time in between zero and the MCR as "partial outages." This is a misnomer, in that the units functionally cannot be requested to operate at partial output, although at times fractional output is reflected in the J7.1 data. It is true that the OPA model ignores this. But what is apparent from the second page of K13.1 is that the resulting imprecision is small: the percentage of time that the data show the unit operating at less than 50 MW below its MCR is approximately 5% (the pink shaded area on the graph below). The OPA model accounts for this by representing half of that area at zero, and half at the MCR. As a result, Hydro One submits that the impact on the OPA's locked-in energy analysis is likely to be minimal.



Undertaking K13.1, page 2

The OPA could have taken some of the effect of the fractional data into account by creating a three-state model. This would have required analyzing the J7.1 data and determining what percentage of the time the unit's output was between 34% and 65% (e.g., the first quarter of the shaded area of K13.1, page 2, immediately above, between 272 MW and 520 MW – about 1%) and modifying the probabilistic profile to reflect 0, 50, and 100% values. Doing so, however, would minimally improve the precision of the model, and would have resulted in an exponential increase in the complexity of the model.⁵⁹

Furthermore, it is inconsistent that Pollution Probe advances the critique of imprecision in respect of so-called “partial outages” when it relies itself on a one-state model, namely, monthly capacity factors. Its monthly averaging dramatically underestimates locked-in energy that occurs on an hourly basis. By way of simple example, if available generation exceeds transmission capability for 12 hours by 100 MW, and then during the subsequent twelve hours there is 100 MW of excess transmission capability, taking the daily average would indicate that there had been no congestion when, in fact, there would have been 1,200 MWh of locked-in energy. Again, wind is a peaking and variable generation source, and the OPA approach considers it on an hourly basis, eschewing the more simple monthly averaging approach adopted by Pollution Probe's experts. Regardless of the “conservative assumptions” purportedly built into their approach, the fact remains that the Pollution Probe model is fundamentally imprecise to begin with relative to the OPA model.⁶⁰

⁵⁹ In a two-state model $2^8 = 256$ distinct states for the aggregate output of the Bruce plant, whereas $3^8 = 6,561$ distinct states for the aggregate nuclear output in a three-state model.

⁶⁰ Hydro One Argument in Chief, p. 32.

Pollution Probe filed Supplementary Evidence which presented the results of a model developed by Mr. Fagan. This model purportedly shows that “at least \$245 million would be saved by employing the reasonable alternative instead of building the line.” However, Mr. Fagan admitted during cross-examination to using the wrong scenario in producing the NPV results in his Supplemental Evidence.⁶¹ Mr. Fagan's results were based on an analysis of locked-in energy and losses that calculated the benefits of the new line after series capacitors were assumed to be installed. These results therefore significantly understate the savings in locked-in energy and losses that the line would produce, as Mr. Fagan himself admitted.⁶² This is because (as he again indicated he was aware) series capacitors are not anticipated to be installed if the new line is approved and built.

Accordingly, Pollution Probe’s assertion that \$245 million would be saved by using series capacitors instead of building the line cannot by definition be correct. Mr. Fagan’s results do not show the value of the line compared with series capacitors; they show the incremental value of the line after series capacitors are built. Not surprisingly, based on this approach the NPV Mr. Fagan derives is considerably lower than a proper analysis would show.

Mr. Fagan’s results purport to indicate that the line has a negative of NPV of \$11 million using OPA’s methodology and negative \$245 million using the Synapse methodology.⁶³ The correct NPV numbers are positive and much higher. As indicated in Hydro One’s response to a Pollution Probe interrogatory, the NPV of locked-in energy and losses that would be avoided if the line was built (after installing the near-term measures and the Bruce Special Protection System enhancements, but not series capacitors) is \$1.3 billion.⁶⁴ Netting off the capital cost of the line of \$600 million (per Mr. Fagan’s Table 1A) would produce a positive NPV of \$700 million. In other words, the line clearly pays for itself and provides significant financial benefits, contrary to Mr. Fagan’s assertions. Hydro One submits that these are the true numbers the Board should rely upon, and that the Board should ignore Pollution Probe’s flawed NPV analysis.

The SON also identifies purported “errors” of the model as presented in undertakings J14.1 and J14.2.⁶⁵ Although these assertions have been dealt in full with Hydro One’s Argument in Chief, the SON appear unaware of this. Hydro One’s specific responses are set out as follows:

- regarding spatial diversity of wind, see page 32 of Hydro One’s Argument in Chief. No party has advanced evidence, on this ground or otherwise, to impugn the simulated wind farm generation output from three aggregated sites in the Bruce Area resulting from the April 13, 2007 AWS Truewind report used in the OPA model. It would not be prudent for the OPA to deviate from its general (nameplate) planning standard and risk undersizing the transmission system on the premise of the possibility of a substantial diversity of wind, particularly in a

⁶¹ Transcript, vol. 13, June 4, 2008, pp. 173 – 174.

⁶² Transcript, vol. 13, June 4, 2008, p. 173, lines 18-23.

⁶³ Pollution Probe Supplemental Evidence, Table 1A.

⁶⁴ Exhibit C, Tab 2, Schedule 10.

⁶⁵ SON submissions, pp. 30-32.

common geographical area and a common source of wind (Lake Huron) in the absence of proof that diversity of wind exists. The only study that was examined during the hearing that considered diversity of wind was the October 6, 2006 AWS Truewind Report, which noted strong correlations between the different regions that border Lake Huron.

- regarding the purported savings of “between \$53.1 and \$58.9 million per year,” see pages 38-39 of Hydro One’s Argument in Chief. The annual revenue requirement is an inappropriate figure to use as a proxy for the avoided costs associated with delaying the line, and the Project has a positive net present value,⁶⁶ resulting in a net loss, not savings, if the project is delayed.
- regarding “unduly low and dated avoided cost data”, page 40, see the last paragraph of Hydro One’s Argument in Chief. The recent cost data is only an escalation of 2.5%, was released after the interrogatory process and if used would make the SON’s “better alternative” less attractive relative to the Project.
- regarding avoided wind energy payments, see page 41 of Hydro One’s Argument in Chief. The SON posit entirely reversing Ontario’s renewable energy policy, extending to OPA procurement and the IESO Market Rules.
- regarding purported derating seasonality, see page 43, first paragraph of Hydro One’s Argument in Chief. Mr. Fagan admitted he undertook no statistical analysis of the thousands of data points in Undertaking J7.1 to be able to demonstrate any correlation between deratings and seasons,⁶⁷ and as elicited in cross-examination the data used in his model reflects the opposite: a wide range of seasonal variability.⁶⁸ The SON only repeat Mr. Fagan’s bare assertion, devoid of proof or even an attempt at serious analysis.
- regarding “enabler lines”, see page 43, second paragraph of Hydro One’s Argument in Chief. Enabler lines are not part of the Project, many wind farms in the IESO queue are proximate to the existing corridor and will need no enabler lines, and transmission losses would be common to any set of evaluated alternatives. The SON was provided in Hydro One’s evidence⁶⁹ and its Argument in Chief with the connection points of the Bruce Area wind development projects in the IESO queue, many of which are proximate to the existing corridors.⁷⁰

The SON also assert that the model does not account for future costs related to the Milton station.⁷¹ This is based on Mr. Sabiston’s evidence that a future upgrade of the Milton station is

⁶⁶ Exhibit C, tab 2, schedule 10.

⁶⁷ Transcript, Vol. 13, June 4, 2008, p. 163, lines 18-21.

⁶⁸ Transcript, Vol. 13, June 4, 2008, p. 162 line 25 - p. 163 line 11

⁶⁹ Exhibit K10.1, Tab 13.

⁷⁰ Hydro One Argument in Chief, p. 44.

⁷¹ SON submissions, p. 32.

expected to be required in about 2015, as identified in the IPSP. Mr. Sabiston made clear, however, that the need for the expected upgrade is driven by ongoing load growth in the Toronto area, and is independent of the Bruce to Milton line.⁷² Accordingly, Hydro One submits that SON's criticism regarding the omission of future costs has little merit.

The SON state that the OPA financial model "is not, by itself, a viable system planning tool."⁷³ However, this shows a misunderstanding of the use of the model and, as a corollary, an ignorance of the primary drivers of Hydro One's case. Although the Project is not premised on the results of the OPA model because it is a non-discretionary project,⁷⁴ the OPA financial model serves to complement and confirm the OPA's nameplate planning methodology. The model performs an analysis of capital costs and the economic value attributed to locked-in energy and losses. Accordingly, the SON suggestion that the OPA model ought to place a value on "intangibles" or "scalability" is misplaced. Those would be qualitative factors to consider if, and only if, the series capacitor option met the identified need, satisfied reliability standards, and the Project required a cost benefit comparison of alternatives. It does none of these things.

The SON also erroneously suggests that the OPA's financial model can be used to delay when the decision to proceed with the Project ought to take place:

By planning for, and implementing, necessary transmission upgrades for committed resources only and ahead of the cross-over point, the purported costs of locked-in energy can be avoided while retaining all the benefits of avoiding the large capital cost of a new line based on uncertain generation developments.⁷⁵

Referring to any of the graphs produced by either Hydro One or the SON using the OPA model shows that the series capacitor option, following the outlay of initial capital costs, steadily moves towards a cross-over point with the line option. This results from the accumulation of economic costs resulting from locked-in energy, i.e., costs occasioned by the insufficient transmission capability of the series capacitor option. These costs are not avoided if the line is deferred and the series capacitors are installed first. Again, Mr. Russell appears to misunderstand the functioning of the OPA financial model. As put to him during cross-examination,⁷⁶ and as set out in Hydro One's Argument in Chief⁷⁷ in response to his concerns as expressed in Undertakings J14.1 and J14.2, these costs are cumulative.

As a result, what the cross-over point represents is simply the point at which the cumulative costs of the alternatives, on a NPV basis, are equal. It does not represent the point in time that any of the options becomes the superior economic option, and it cannot be used to stage the addition of transmission reinforcements as Mr. Russell suggests. Mr. Russell's interpretation would be

⁷² Transcript, vol. 5, May 7, 2008, p. 183.

⁷³ SON submissions, p. 32.

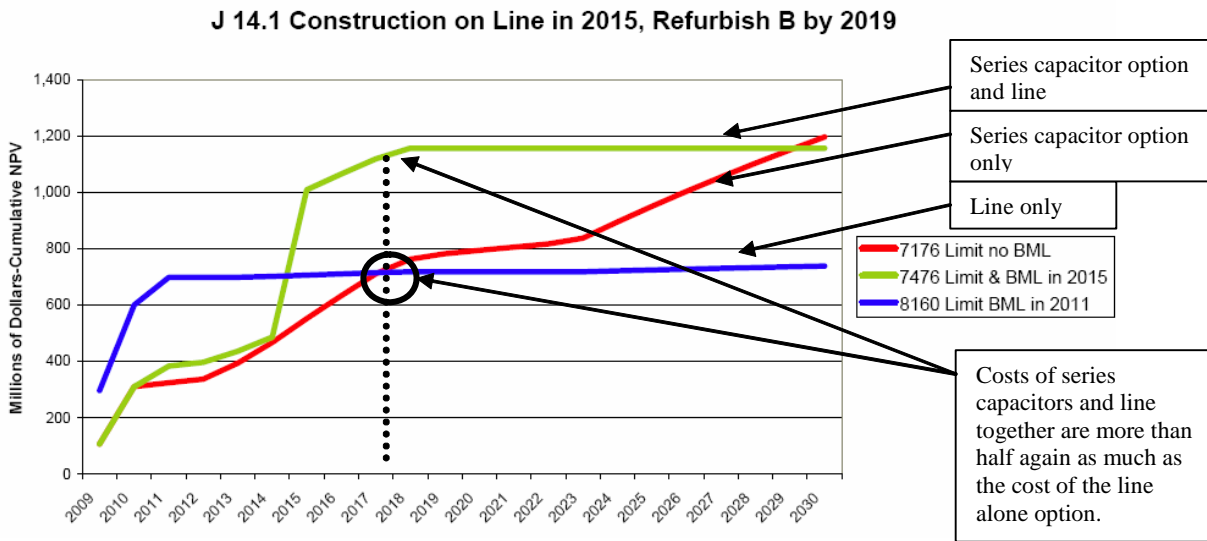
⁷⁴ Hydro One, Argument in Chief, p. 22.

⁷⁵ SON submissions, p. 28.

⁷⁶ Transcript, vol. 14, June 11, 2008, pp. 256-257; see also p. 262 lines 5-19.

⁷⁷ Hydro One Argument in Chief, p. 37.

correct if the costs were presented on a year-by-year basis. In that case, the cross-over point would represent the point at which the annual costs of one alternative begin to exceed the annual costs of another, and from that point forward those costs could be avoided if the alternative investment were implemented at that time. But that is not how the model works. The costs are cumulative, not annual. That Mr. Russell's interpretation is incorrect is shown by the graph from J14.1, which Hydro One requested Mr. Russell to produce and which is shown below. In J14.1, Mr. Russell was asked to show the results of adding series capacitors first and the line later. The fact that the green line in the graph, representing the combined costs of series capacitors and the Project, is more than half again the cost of the Project,⁷⁸ as represented by the blue line, at the cross-over point of 2018, demonstrates that one cannot "switch" from one project to another at a cross-over point so as to minimize costs.



Undertaking J14.1

When compared with the Project the SON's recommendation is uneconomic, and their suggestion otherwise is not credible. The SON experts took great time and effort during the second Technical Conference to analyze the model and they prepared a supplementary evidence filing based on the model's operations that, by its very nature, is comparative to that presented by Hydro One. The model has thus been acknowledged to have value. The SON attacks upon the usefulness and integrity of the model do not appear in their direct evidence, but rather appeared in Undertaking J14.1 and J14.2 after their analysis was tested through cross-examination and demonstrated to be in error.

The Board must choose which interpretation of the model is more credible: that of the OPA, who developed the model for use in planning the transmission capability required in the Bruce Area, or a hired consultant unfamiliar with the Ontario system. The SON took no issue with the operations of the model and used it as the basis for the SON's supplementary evidence. What is in error is the interpretation made by Mr. Russell in misunderstanding what the model is intended

⁷⁸ At the cross-over point of 2018, \$1,158 million for the combined option vs. \$719 million for the line alone, per p. 1 of the Attachment to Undertaking J14.1.

to demonstrate, namely, comparisons of cumulative net present values of costs and the importance that cross-over points have to that analysis.

The SON do take note of Hydro One's point in its Argument in Chief that the SON use of a \$70 million additional cost to increase the series capacitor transfer capability to 7,476 MW was likely quite low. As set out in detail in Hydro One's Argument in Chief it is clear that the actual cost would be much more than \$70 million, and hence any reliance on analysis derived from the \$70 million figure is inappropriate.⁷⁹ The SON suggests that any and/or all of Hydro One, the OPA, or the IESO ought to have studied these costs and those associated with Nanticoke synchronous condensers because "it was incumbent on Hydro One to study, and introduce evidence on these issues as part of a proper assessment of reasonable alternatives."⁸⁰ It makes little sense for Hydro One to ignore the Board's filing guidelines which direct the applicant to present "the smallest number of alternatives consistent with conveying to the Board the major solution concepts available to meet the same objectives that the preferred option meets."⁸¹ Accordingly Hydro One did not analyze options which neither comport with the IESO's reliability standards, nor satisfy the need identified by the OPA, and the SON could have requested this information during the interrogatory process. It chose not to do so.

Board staff also commented on the discount rate used in the model and suggested that the appropriate rate is as prescribed in Appendix 5 of the Transmission System Code.⁸² Hydro One notes that the economic evaluation methodology prescribed in Appendix 5 is primarily used in determining capital contributions payable by customers in relation to connection facilities. In that situation, use of the (prescribed) transmitter's discount rate to calculate the net present value of the transmitter's revenues and costs is appropriate. However, in cases like the Project, which are network reinforcements and which involve large non-transmitter cash flows, such as for locked-in energy which have broad consumer impact, Hydro One submits that a social discount rate such as the 4% rate the OPA used in its analysis, is more appropriate. This rate is consistent with the discount rate the OPA has used in the IPSP. Hydro One also notes that the cashflows in OPA's locked-in energy analysis are unescalated; hence using a nominal discount rate as Board staff suggest would result in an over-discounting of the costs and lead to inaccurate financial results.⁸³

5. The Line is the Most Reliable Option

Hydro One in its Argument in Chief explained that the series capacitor / generation rejection option infringed the IESO's reliability standards.⁸⁴ Section 3.4.1 of the IESO-administered Ontario Resource and Transmission Assessment Criteria ("ORAT") provides that:⁸⁵

⁷⁹ Hydro One Argument in Chief, p. 36, paragraph 2.

⁸⁰ SON submissions, p. 29.

⁸¹ Filing Requirements for Transmission and Distribution Applications, s.5.3.2.

⁸² Board staff submissions, p. 8.

⁸³ See Exhibit C, Tab 2, Schedule 9.

⁸⁴ Hydro One Argument in Chief, p. 53.

[A Special Protection System] associated with the bulk power system may be planned to provide protection for infrequent contingencies, for temporary conditions such as project delays, for unusual combinations of system demand and outages, or to preserve system integrity in the event of severe outages or extreme contingencies. [emphasis added]

Mr. Falvo and Mr. Woodford both testified that series capacitors would increase the operational complexity of the system.

The arming of generation rejection during normal operating conditions infringes the above standard. Board staff made no comments in this regard. However, the SON state that:

All suggestions made by Hydro One and its witnesses that a series capacitor alternative would not meet regulatory criteria, would create an overall increase in operational complexity or would require “intensified generation rejection” is based on speculation and assumptions.⁸⁶

This is untrue. As opposed to “speculation” Messrs. Falvo and Woodford were testifying under oath, and each possesses decades of relevant experience. Intensified generation rejection refers to increasing the frequency of arming to encompass normal as well as outage conditions.

The SON further suggest that a new BSPS would be applied for in the event of a serious series capacitor / generation rejection alternative, which could well be approved by the IESO and NPCC. This optimistic speculation on the part of the SON ignores the facts before the Board:

- The IESO has stated, through Mr. Falvo, that long-term reliance on the series capacitor / generation rejection alternative would not comply with mandatory Ontario reliability standards;
- The NPCC has concern about the use of the BSPS on a long-term basis as a permanent feature of the transmissions system plan in the applied-for interim measure BSPS;
- Hydro One witnesses have testified that a BSPS involving series capacitors would be more operationally complex.

Mr. Russell for the SON disagreed with both the prospect of increased operational complexity and infringement of ORAT. Accordingly, the Board must make a credibility determination as to which expert is more familiar with and whose evidence should be preferred in respect of what will complicate the Bruce Area bulk transmission system.

Pollution Probe suggests⁸⁷ that because the NPCC TFSS sub-committee appears to have accepted the IESO’s most recent BSPS application⁸⁸ which contemplates load rejection, its “alternative”

⁸⁵ Hydro One Argument in Chief, p. 53. See also Exhibit K10.1, Tab 19.

⁸⁶ SON submissions, p. 35.

⁸⁷ Pollution Probe submissions, p. 7, footnote 9.

⁸⁸ Exhibit K10.5.

would certainly receive approval. The link between those propositions is not on the record of this proceeding, but this point is moot because (i) the existing BSPS is capable of rejecting load,⁸⁹ and (ii) non-ORAT infringing reliance upon the BSPS is limited to infrequent contingencies, temporary conditions and unusual circumstances.⁹⁰

While the SON note that Hydro One has concluded that series compensation can work in the Bruce network, they critically omit the fact that the resulting operational complexity results in (i) the need for judicious study and careful implementation, and (ii) it being the last interim measure to be put in place and hopefully one that will not be put into place at all.

The SON also suggests that the IESO does not have the authority to create “new and substantially stricter reliability criteria.” This is based on comments made by Hydro One to the IESO in 2006 during the drafting phase of the ORAT. These comments are dated and there is nothing on the record to suggest that they represent the current position of Hydro One. In any event, the IESO has issued those standards, which are legislatively underpinned and not optional.⁹¹ It would be inappropriate for Hydro One to submit an application to the Board that would deliberately contravene IESO standards supported by legislation. The further suggestion that Hydro One then, in an apparent contradiction to its earlier stance, colluded with the IESO to create artificially strict standards and “handicap” its application, as at page 38 of the SON submission, is risible. The IESO is an independent entity. Hydro One has as sole shareholder the Province of Ontario. Neither is a profit-seeking entity. Both are mandated to operate in the public interest. Gerrymandering with electricity standards which will have long-term and province-wide effects for the sake of a single application is an outlandish suggestion and the Board should not give it any credence.

The SON submission also suggests that “this situation [the SPS in relation to the Project] is analogous to what Hydro One has done...for the Hanmer-Essa 500 kV line.”⁹² This is false because that generation rejection scheme is very straightforward, involving only one line, is not a type I SPS⁹³ and is very much unlike the complicated Bruce Area bulk transmission system and complex generation rejection scheme – arguably the most complicated generation rejection scheme in North America.

The SON concludes in this domain that reliability criteria ought to be balanced against other aspects of the application, such as cost-effectiveness. This is untrue. Reliability standards are mandated and enforced by legislation and are not optional. Any application submitted by Hydro One to the Board must therefore comport with the IESO’s reliability criteria. Mr. Falvo is misrepresented in the suggestion that he endorsed balancing reliability criteria against land-use policies. His evidence was that the system had been modelled following an assumed contingency involving the loss of the entire Bruce-Milton corridor and could withstand that loss. Accordingly, the risk posed by tornadoes to the Project was one that could be tolerated and that

⁸⁹ Transcript, vol. 12, May 28, 2008, p. 49, lines 3-7.

⁹⁰ ORAT, s. 3.4.1; see Hydro One Argument in Chief, p. 53 and Exhibit K10.1, tab 19.

⁹¹ Hydro One Argument in Chief, p. 53.

⁹² SON submissions, p. 38.

⁹³ IESO submissions, p. 8.

corridor would not be unlike other multi-line corridors presently existing in the Ontario system. Similarly, Mr. Sabiston is misrepresented in that he stated that Hydro One will meet reliability criteria but will not spend money to exceed the necessary criteria; this cannot be equated to the notion that in some circumstances it is justifiable not to meet reliability criteria.⁹⁴

The SON suggests that its proposal in fact continues to rely upon generation rejection only as an interim measure. This stance, however, tortures the meaning of the word “interim.” Mr. Russell’s evidence and testimony suggest this application should be presented to the Board at a later date, e.g., 2013, such that generation rejection would be relied upon until at least 2018. Mr. Russell and the SON have also suggested that a larger window exists, potentially until 2030. If this interpretation is adopted, then the SON are suggesting that this “interim” measure should last between a further one and three decades. The Board should not accept that interpretation of “interim.”

If generation rejection is removed from use in normal (non-outage) conditions, as the IESO says it must be, Pollution Probe and the SON’s “reasonable alternative”⁹⁵ only provides 6,326 MW of transmission capability. This accommodates only seven nuclear units and 700 MW of wind. As such, when the wind blows, Ontarians will only enjoy hamstrung wind-powered electricity from what could otherwise be the “fruitful” Bruce windshed. Further, Ontarians will be required to replace available emissions-free generation from the unaccommodated eighth Bruce unit with coal or gas fired generation. That is in direct conflict with the Supply Mix Directive’s aim of providing nuclear baseload generation. That is neither reasonable nor prudent transmission system planning and flies in the face of policy choices made by the Province of Ontario.

6. The Application is Independent of the IPSP

The SON suggest throughout their submission that the Project ought to be delayed until after the IPSP.⁹⁶ The Board has already considered, and rejected, this request in its Issues Day decision of July, 4, 2007. The SON have confused the binding and discretionary nature of the Ministerial Directives issued to the OPA, and what is properly within the scope of Board review in the IPSP proceeding.⁹⁷ Hydro One notes that the Ministerial Directives are legally binding on the OPA and, while there is some discretion left to the OPA about how to carry out these Directives, the manner in which the OPA carries out pre-IPSP Directives is not subject to Board approval either within the IPSP or outside of the IPSP process.⁹⁸

The SON have, on this point, sought to interpret remarks made by Mr. Skalski to mean that “many” issues relating to the Project will be evaluated in the IPSP.⁹⁹ However, as noted above, there is a clear legislative distinction between Ministerial Directives which are subject to Board

⁹⁴ SON submissions, p. 39.

⁹⁵ Pollution Probe submissions, p. 16.

⁹⁶ SON submissions, pp. 12-17.

⁹⁷ SON submissions, p.12.

⁹⁸ *Ontario Energy Board Act*, s.25.32; see, e.g., August 27, 2007, Ministerial Directive.

⁹⁹ SON submissions, pp. 13-14.

approval in the IPSP and those which are not. Accordingly, in as much as the need identified by the OPA is shaped by Ministerial Directives not subject to the IPSP there is a clear distinction between the Project and the IPSP. Again, this is reflected in the Board's refusal to adjourn this Application pending the IPSP process. Hydro One is of the view that was the appropriate decision, recognizing that Ontario's electricity needs cannot come to a standstill pending finalization of the IPSP. The OPA and the IESO must act on needs that arise in the interim – needs which give rise to the Project and are reflected in the government pre-IPSP Ministerial Directives. Moreover, there are other projects in addition to the Project which are also being dealt with prior to approval of the IPSP, also pursuant to pre-IPSP Ministerial Directives, and all of which remain subject to the usual section 92 test.

In addition, Hydro One repeats that the Ministerial Directives which shape the OPA's generation and transmission forecast result in the Project being considered a non-discretionary application.¹⁰⁰ The Ross Group purports to have carefully considered the elements of section 5.2.2 of the Board's Minimum Filing Requirements in cross-examination but, in fact, a comparison of the transcript with the Filing Guidelines reveals they omitted to put to the witnesses the critical Non-Discretionary criterion related to forecast generation ("Projects that are required to achieve Government objectives that are prescribed in governmental directives or regulations"). This may be because the criteria cited in the Ross Group submissions appear to have been sourced from the July 17, 2006 Staff Proposal rather than the November 14, 2006 final version of the Filing Guidelines. The July 17 version does not contain that critical criterion. It is, however, explained in Hydro One's application¹⁰¹ and its Argument in Chief.¹⁰² This omission is fatal to the proposition advanced by the Ross Group that the Project can somehow be considered a discretionary application.

The Fallis Group advances the same argument on the grounds that the OPA only "urged," and did not compel, Hydro One to apply for the Project. Hydro One is of the view that this argument is irrelevant and the Project is required for the OPA to be able to give effect to the Ministerial Directives discussed above, such that the Project is properly classed as non-discretionary.

7. Factual Errors in Intervenor Submissions

Parties in this process have, perhaps inadvertently, made factual errors in the course of their submissions, not captured in the foregoing common areas of discussion. Hydro One in this section takes the opportunity to correct these errors:

- The Fallis Group suggests that any approval must be subject to an additional condition of "issuance of a Development Permit under the *Niagara Escarpment Planning and Development Act*." Hydro One notes that Mr. Millar discussed this matter during the oral hearing and, with respect, prefers the approach of Board staff.¹⁰³

¹⁰⁰ Hydro One Argument in Chief, p. 22.

¹⁰¹ Exhibit B, tab G, schedule 5, Appendix 1, p. 3.

¹⁰² Hydro One Argument in Chief, p. 22.

¹⁰³ Transcript, Vol. 8, p. 142 line 13 – p. 143 line 1.

MR. MILLAR: . . . I thought it would be helpful to read condition 1.4 of our draft conditions of approval. That reads:

"Hydro One shall obtain all necessary approvals, permits, licenses, certificates and easement rights required to construct, operate and maintain the proposed project, and shall provide copies of all such written approvals, permits, licenses, and certificates upon the Board's request."

So it seems to me there is an argument that, whatever conditions may be required -- pardon me, whatever approvals may be required from the Niagara Escarpment Commission -- and I personally am not familiar with that act, and I don't know exactly what those may be -- but it seems to me if these conditions were applied, any approval for the leave to construct would be contingent on those approvals being received.

- The Ross Group suggests that the OPA's rationale in relation to the Bruce B forecast is derived from, exclusively, a PowerPoint presentation presented by Duncan Hawthorne.¹⁰⁴ This position flatly ignores the testimony of Hydro One's witnesses and its Argument in Chief. The PowerPoint presentation referred to by the OPA related to the assumed date, and only the date, of Bruce B Refurbishment and was consonant with the discussions that the OPA had with Bruce Power, which Mr. Chow testified to.
- The Ross Group also suggests that there cannot be a "new build" at the Bruce Complex because the Darlington Complex has been awarded the approval for that project.¹⁰⁵ This is a misreading of the government announcement previously cited by Board staff, in that the government of Ontario has clearly stated that Bruce B generation will proceed *either by way of refurbishment or new build*, and has not foreclosed any options. Every indication is that generation at the Bruce nuclear complex will remain at 6,300 MW.
- The Ross Group concludes, following extensive dictionary references, that Hydro One has misapplied Provincial Land Use Policy, suggesting that routes avoiding the Niagara Escarpment and the Camp Creek lowland should be preferred to those that take advantage of an adjacent corridor. Hydro One is of the view that use of the Provincial Land Use Policy to optimize existing infrastructure in the course of its screening process makes simple and pragmatic sense when considering linear developments: land acquisition costs and other disturbances are reduced. Moreover, the environmental assessment process will consider detailed routing issues.
- The Ross Group refers to the IESO's "Operability Review of OPA's Integrated Power System Plan,"¹⁰⁶ but has misinterpreted it, drawing incorrect conclusions

¹⁰⁴ Exhibit K14.3.

¹⁰⁵ Ross Group submissions, p. 4.

¹⁰⁶ Ross Group submissions, p. 7.

regarding the amount of wind in the Bruce area that is likely to be curtailed in periods of Surplus Baseload Generation by using province-wide figures. Moreover, this document is not on the record of this proceeding and at no time during the seven days that Mr. Falvo was on the stand was this document put to him. Accordingly, the Board should not give any weight to the document or submissions based thereon in its decision.

- The SON suggests that Hydro One failed to take reasonable measures to study its “alternative,” including “amending interconnection contracts with Michigan and New York so as to lift the 1,500 MW limit on “emergency purchases.”¹⁰⁷ However, there are no interconnection agreements which limit emergency energy purchases to defined amounts. Rather, the 1,500 MW limit relates to the ability of the interconnected neighbouring utilities to support the Ontario system following generation rejection, not the interconnection capacity, nor emergency purchases.¹⁰⁸ This again reflects the unfamiliarity of the SON and their expert with the Ontario electricity system and framework.
- Pollution Probe suggests that the Nobel station environmental studies should accelerate the ability of Hydro One to install series capacitors on the Bruce to Milton line.¹⁰⁹ This assertion glosses over the time requirements identified by Mr. Woodford, as set out in the timeline of undertaking J6.1.

8. The OEB’s Appropriate s. 92 Role vis à vis Aboriginal Consultation

Hydro One has reviewed the submissions of the Board staff, the SON and Metis Nation of Ontario (“MNO”). The submissions of the SON and the MNO suggest that consultation carried out by Hydro One in respect of the Project is insufficient for the Board to grant Leave to Construct. Hydro One disagrees with this suggestion. As described in Hydro One’s Argument in Chief, tremendous efforts have been made on the part of Hydro One in its role as Project proponent carrying out by itself various procedural aspects of the Crown’s duty to consult, as part of the Board’s decision-making process, and as part of its duties generally as Applicant before the Board, to consult with potentially affected aboriginal groups.¹¹⁰ The evidence of this consultation is on the record,¹¹¹ is voluminous, and includes substantial capacity building funding¹¹² to ensure that such groups are informed of, and can properly understand, the Project.

The MNO suggests that its late arrival and corresponding early state of consultation (despite early contact efforts by Hydro One to the potentially affected Métis groups¹¹³), as well as the

¹⁰⁷ SON submissions, p. 25.

¹⁰⁸ Exhibit C, tab 5, schedule 9; see also Transcript, vol. 5, May 7, 2008, pp. 113-117.

¹⁰⁹ Pollution Probe submissions, p. 7.

¹¹⁰ Hydro One Argument in Chief, pp. 70-71.

¹¹¹ Exhibit C, Tab 1, Schedule 6, Attachments A and C.

¹¹² Hydro One Argument in Chief, 70; see also Transcript, Vol. 9, May 13, 2008, p. 164, lines 14-25.

¹¹³ Exhibit C, Tab 1, schedule 6.1, Attachment A.

absence of “strategic planning consultation”, in contrast with the suggestion of “deep consultation” based on the assertion of some 300 harvesting members in the Bruce Area, is reason to deny leave to construct.¹¹⁴ The SON similarly suggest that consultation to date is inadequate because it has not reached a level of consensus, notably in respect of matters such as increased nuclear generation and reliance upon SON territory for energy needs.¹¹⁵

This is a facilities application and the consultation to be assessed by the Board within this Application is that which relates to leave to construct the applied-for facilities. Consultation has also occurred with the Crown elsewhere (such as with the OPA in respect of IPSP issues). Hydro One has and continues to engage in consultation relating to the Project’s environmental assessment. There is no obligation on the Applicant to expand its consultation beyond that of the applied-for Project within the context of the Board’s mandate regarding a Section 92 application. Hydro One is of the view that consultation relating to the Project and this Section 92 application, including the Board’s process itself, has been thorough and robust and that the record allows the Board to conclude that appropriate consultation has occurred in respect of the application before the Board.

The MNO suggests that two previous decisions of the Board have applied the Board’s proposed Aboriginal Consultation Policy and it ought to be applied in these circumstances.¹¹⁶ Hydro One is of the view that those cases are not inconsistent with the approach which it advocates here.

To consider another example, in Reasons for Decision EB-2007-013, the Board ruled on October 9, 2007 as follows:

The Applicant stated that various phone conversations took place with the groups noted above, and briefing as provided to the Haudenosaunee Six Nations Confederacy Council and the Mississaugas of New Credit First Nation on November 1, 2006 and November 6, 2006, respectively, at their request. The Applicant stated that to date no group has brought forward issues or concerns regarding the project. The Board finds that Hydro One’s consultations with Aboriginal Peoples have been appropriate.¹¹⁷

Although the issues in that proceeding were less contentious than those here, the Board evaluated whether Hydro One’s consultation, as Applicant, was sufficient.

Hydro One submits that the Board should also find that the evidence in this proceeding demonstrates that consultation with the potentially affected aboriginal groups has been sufficient for the purposes of the application currently before the Board.

Board staff have suggested in their submission that the Board’s status as an Agent of the Crown pursuant to the Act creates, in some circumstances, a mandate supplementary to that set out for the Board in section 96 of the Act when a Leave to Construct application is considered under section 92 of the Act. Hydro One submits that the Board is limited to exercising its powers

¹¹⁴ MNO submissions, paras. 70-74.

¹¹⁵ SON submissions, p. 49.

¹¹⁶ MNO submissions, paras. 49-52.

¹¹⁷ Reasons for Decision EB-2007-013, p. 9.

“only as an agent of Her Majesty,”¹¹⁸ and Hydro One submits that its constitutional obligations arise only when it is acting within its delegated mandate with respect to leave to construct applications, namely price, quality and reliability of electricity service, as per sections 92 and 96 of the Act. For example, in the context of Crown liability, the Supreme Court of Canada held that “[w]hen a Crown agent...steps outside the ambit of Crown purposes, however, it acts personally, and not on behalf of the state.”¹¹⁹

The MNO suggests that the obligation to assess Crown consultation is a “super-added duty” independent of the Board’s enabling statutes.¹²⁰ Hydro One submits that this is inaccurate because the reason that Section 35 of the *Constitution Act, 1982* (“Section 35”) applies to the Board’s decision-making in these circumstances is because it has been delegated decision-making powers in respect of leave to construct applications. The limits of those decision-making powers, namely price, quality and reliability of electricity service, accordingly describe the limits of the Board’s Section 35 obligation.

If this were not the case, and the Board would be required to assess every potential outcome of the Project, the entire regulatory process would change, and the Board would find itself, of necessity, only able to grant Leave to Construct after every other authorization had been obtained, such that all aspects of consultation could be conclusively determined only at that time. This would be very different from the approach that is set out in legislation and that has been undertaken, namely, a parallel environmental assessment process. If the parallel process was inconsistent with the Board’s aboriginal consultation obligation, then this application ought to have been ruled premature from the outset, prior to any sort of evidentiary phase. Furthermore, a necessary participant would be the Ministry of Energy. However, the Ministry of Energy has, by the information provided to Hydro One in respect of its consultation efforts¹²¹ indicated that its consultation is ongoing, because the environmental assessment process is ongoing.

It is obvious that matters relating to environmental effects, socioeconomics, archaeology and culture do not relate to the section 96 aspects of price, quality and reliability of electricity service. The foregoing elements have been raised as issues by potentially affected aboriginal groups, and fall squarely within the ambit of the environmental assessment process and the decision and Crown consultation relating thereto. Hydro One agrees with the conclusions of Board staff that the environmental assessment process will entail aboriginal consultation and an assessment of the adequacy of Crown consultation, and that these matters are best considered there.¹²²

Again, the Crown will be required to issue two authorizations to Hydro One for the Project to proceed: leave to construct under the Act, and authorization under the environmental assessment. The Board is not the only decision maker which will allow the Project to proceed. Accordingly, the Board should make its decision within the ambits of its mandate of price, quality and

¹¹⁸ *Ontario Energy Board Act, 1998*, S.O. 1998, c. 15, Sch. B, s. 4(4).

¹¹⁹ *R. v. Eldorado Nuclear Ltd.*, [1983] 2 S.C.R. 551 at 565-566.

¹²⁰ MNO submissions, para. 4.

¹²¹ Exhibit C, Tab 1, Schedule 6.1, Attachment B.

¹²² Board Staff submissions, p. 21.

reliability of electricity service in assessing any consultation effected by Hydro One as Applicant. There is no caselaw to support (and the MNO and SON have not identified any such case law) a requirement that the Board be the sole decision-maker regarding the Project generally and with regard to all Crown consultation matters. Indeed, for the Board to so find would amount to pushing the envelope of the law beyond what the Supreme Court of Canada has established in the consultation cases to which all of the parties have referred.

Both the MNO and the SON have suggested that the case *R. v. Paul*¹²³ stands for the proposition that, because an administrative tribunal that may make rulings of law may apply the Constitution of Canada, including in relation to Section 35, this confers upon the Board an overarching aspect to assess all consultation relating to all aspects of the Project. This is not accurate. *R. v. Paul* describes the nature of an administrative tribunal. It does not stand for the proposition that Crown consultation must occur in only one venue, that the decision-maker's scope of decision-making is expanded beyond that which is expressly provided for in the applicable legislation and that the first decision maker to consider any consultation aspects must consider all consultation aspects.

The MNO states that the OEB cannot “delegate, defer or hand over its constitutional obligation “based on the mere suggestion that another Crown actor will address the duty in the future.”¹²⁴ The SON similarly suggests that it would be inappropriate for the Board to “defer” its purported obligation to evaluate the adequacy of Crown consultation in favour of allowing the Minister of the Environment to complete Crown consultation because:

[The Ontario environmental assessment] process is not conducted by a tribunal analogous to the Board. The EA process for this electricity project is an administrative process conducted by government officials. It does not involve the production or testing of evidence. A decision whether to certify a project after an EA is made politically, not on a quasi-judicial basis. Therefore the EA is not a process that would be suitable for deciding whether other political officials or Ministers of the government had fulfilled the duty.¹²⁵

Any characterization of the Ontario environmental assessment process as biased or less than impartial should not form the basis for a decision by the Board. The environmental assessment process requires a determination to be made by the Minister of the Environment. In exercising that discretion, the Minister must consider the potential environmental and socio-economic effects of the Project. Such an exercise avails the Crown to not only take into account the certainty that this record provides in respect of the consultation conducted to date, but also the further consultation to be carried out and the potential for the Project to adversely affect aboriginal rights and interests, and the need, if any, for accommodation as part of a mitigation strategy. It is within the purview of the Board to make findings of fact that the Applicant's duty to consult has been satisfied and that Crown consultation has occurred, is satisfactory for the purposes of the section 92 application and is ongoing with respect to the environmental assessment.

¹²³ *R. v. Paul*, 2003 SCC 55.

¹²⁴ MNO submissions, para. 7.

¹²⁵ SON submissions, p. 47.

The error on the part of the SON is that the Board is not transferring its obligation to the Minister of the Environment, because the Minister's obligation exists regardless. The Board may legitimately decline to assess the adequacy of Crown consultation in light of the following:

1. in light of the parallel approval processes for the Project, as between the environmental assessment and leave to construct, it is appropriate that Crown consultation is ongoing;
2. the Crown has in fact indicated that consultation is ongoing;
3. the Minister of the Environment also holds the obligation to consult; and
4. the ongoing consultation relates to the mandate of the Minister of the Environment, and not the price, reliability and quality of electricity service mandate of the Board.

Furthermore, there is no evidence on the record to show that consultation has been inadequate, contrary to the suggestion of the MNO.¹²⁶

Moreover, Hydro One suggests that findings by the Board regarding the consultation carried out with potential affected aboriginal groups on the Application currently before the Board will inform the Ministerial determination in the environmental assessment process and, as such, this hearing will also assist in that regard.¹²⁷

Accordingly, the Board may be confident in granting Leave to Construct, provided it has satisfied itself that the record demonstrates that the potentially affected aboriginal groups have been adequately consulted regarding issues relating to the Board's mandate of price, reliability and quality of electricity service exist.

9. The Appropriate Conditions of Approval are those Agreed-to by Hydro One

During the hearing Board staff asked whether Hydro One took issue with any of the standard conditions attached to Board leave to construct approvals. Mr. Schneider indicated on behalf of Hydro One that it did not. In its Argument in Chief, Hydro One additionally indicated that, consonant with its previous submission, a condition that no construction begin until environmental assessment authorization is received would be appropriate. However, Board staff in its submission requested parties to suggest how the Board might incorporate various uncertainties into an order, including conditioning an approval. Hydro One's witnesses hence did not have the opportunity to provide the Board with a considered response in respect of any such conditions. Hydro One takes the view that, if additional conditions were to be added, it would have been deprived of putting forth its evidence as to the effect of such conditions, in violation of the requirements of natural justice and procedural fairness. The leading case on the subject is *Baker v. Canada (Minister of Citizenship and Immigration)*.¹²⁸ The majority of the Court ruled as follows:

¹²⁶ MNO submissions, para. 9.

¹²⁷ Hydro One Argument in Chief, p. 68.

¹²⁸ [1999] 2 S.C.R. 817.

Although the duty of fairness is flexible and variable, and depends on an appreciation of the context of the particular statute and the rights affected, it is helpful to review the criteria that should be used in determining what procedural rights the duty of fairness requires in a given set of circumstances. I emphasize that underlying all these factors is the notion that the purpose of the participatory rights contained within the duty of procedural fairness is to ensure that administrative decisions are made using a fair and open procedure, appropriate to the decision being made and its statutory, institutional, and social context, with an opportunity for those affected by the decision to put forward their views and evidence fully and have them considered by the decision-maker.

Bearing this standard in mind, in *Union of Nova Scotia Indians v. Maritimes and Northeast Pipeline Management Ltd.*¹²⁹ the National Energy Board (“NEB”) issued a conditioned certificate of public convenience and necessity. Condition 22 required the proponent and an intervenor Aboriginal group to jointly develop and submit a protocol for approval. After the eventual breakdown of discussions, the proponent submitted a draft protocol to the NEB without copying the Aboriginal group. The NEB considered Condition 22 fulfilled without seeking to hear from the Aboriginal group. The Federal Court of Appeal voided this determination and remitted the case back to the NEB. Rothstein J.A. (as he then was) held as follows:

It is not inevitable that after hearing from the applicants, the National Energy Board would have reached precisely the same decision with respect to compliance with Condition 22 as it originally did. For this reason, the breach of procedural fairness renders the Board's decision invalid. Arguments on other issues by the respondents cannot save it.

Likewise, in *Flamborough (Town) v. Canada (National Energy Board)*¹³⁰ Mahoney J. allowed an appeal and referred a matter back to the NEB on the following basis:

In my opinion, the hearing undertaken by the NEB was inherently a two-stage process entailing, firstly, the determination of whether the earlier approval of the locations should be confirmed and, secondly, a determination of the conditions under which the facilities ought to be permitted to be operated on those locations. The Appellants had the same right to be heard on the second stage as on the first.

Hydro One submits that similar circumstances would result here if conditions upon which it did not have the opportunity to comment were imposed. Hydro One’s position in respect of any additional conditions is that they are likely to delay the project, and as reflected by the initial letter from the OPA to Hydro One, and the testimony of Mr. Chow, the need for the Project is urgent. It is late, and the practical implications of any delay include less transfer capability, less system flexibility and greater operating complexity, frustrated policy and unnecessary expense to the ratepayer. Hydro One accordingly firmly opposes any condition which might further delay the Project and the benefits it would bring to Ontarians.

¹²⁹ (1999), 19 Admin. L.R. (3d) 223.

¹³⁰ [1987] F.C.J. No. 460 (F.C.A.).

10. Late-Filed Submissions

With respect to the submissions of Messrs. Pappas and Barlow, Hydro One notes that these submissions were filed well after the deadline of July 4, 2008. Hydro One notes that in Mr. Pappas' response to its interrogatory request to him Mr. Pappas stated that he is not an expert, and he had no expert testify in support of the documents he placed on the record. Accordingly, Hydro One submits that the Board should give his submissions no weight whatsoever.

The above issue, however, pales in comparison with the submission of Mr. Barlow. Mr. Barlow's argument is deserving of reply submissions to point out its inaccuracies and lack of relevance.

In addition to inappropriately smearing the efforts of Hydro One in its consultations with property owners, Mr. Barlow addresses in his final argument matters which the Board expressly stated were "out of bounds", namely matters pertaining to the process that led up to the development of Hydro One's Land Acquisition Compensation Principles ("LACP"). This part of his argument is not helpful to the issues before the Board. The Board ruled as follows with respect to the scope of the LACP:

MS. NOWINA:...[T]he following lines of enquiry are not within the scope of this proceeding: Specific compensation; principles that are applied to determine compensation; the process through which those principles were developed; the application of those principles in determining compensation; and the reasonableness of compensation offers. The Board will not allow cross-examination on any of these areas.

However, as parties have pointed out, under section 96.2, in considering this application, the Board will consider the interests of consumers with respect to price. It is relevant to consider the costs of the project, including total land acquisition costs.

Therefore, the Board will allow questions pertaining to the overall land acquisition costs, as they will be impacted by Hydro One's approach to compensation. Our interest here is the impact on the overall economics of the project.

While the Board believes that much of the document in question is irrelevant to the proceeding, with the restrictions we have outlined, we will allow the document into evidence.¹³¹

Mr. Barlow was very much aware of this ruling. During the oral hearing he requested that panellists be added to Hydro One's third panel to speak to the LACP, which request was denied on the above grounds, as set out below:

MS. NOWINA: Mr. Barlow...We operate within our jurisdiction, and there are some things that we can deal with and some things that we cannot.

The landowners do have several forum, and maybe they require more, but the ones that they do have are this proceeding. They may be represented by counsel, and those that are have been dealing with matters far broader than just the land matters issue and, on behalf of the landowners, have been bringing

¹³¹ Transcript, Vol. 6, May 8, 2008, p. 73 line 5 – p. 74 line 2.

forward questions on need and have had a very real and important presence in this hearing.

So landowners are represented and they are here and we're hearing from them.

If the negotiations with Hydro One and landowners don't go as the landowners hope, then there is an expropriation proceeding, and the landowners at that point will have an opportunity to be heard.

In the EA proceeding, they will also have an opportunity to be heard.

So we sympathize. We encourage you to make your case in whatever forum is appropriate, but regarding the question of adding these additional witnesses, from what I have heard you say and what I can see, there would be no point to doing that, because the questions you want to ask them are out of scope for this proceeding.¹³²

Mr. Barlow's submissions in this regard therefore should not be considered.

Mr. Barlow also uses the pronoun "we" throughout his submission. Hydro One accepts as fact that Mr. Barlow may be a member of Powerline Connections, but his representation before the Board is not on behalf of Powerline Connections. Mr. Sperduti made it clear at the outset of the oral hearing that his client, Powerline Connections, withdrew from the OEB proceeding because of Powerline Connections' endorsement of Hydro One's LACP. Mr. Barlow clearly takes exception and does not support the LACP, but that opposition is his alone and cannot in any way be associated with Powerline Connections, because Powerline Connections is supportive of the LACP. There simply is no "we" in Mr. Barlow's submission.

Based on the lack of relevance of the matters in Mr. Barlow's submissions, Hydro One submits that they be given no weight.

CONCLUSION

The risk that opponents of the Project warn against is that the Project will be an overbuild and some of the transmission capability of the applied-for facilities will not be immediately needed. In light of the robustness of the OPA forecast, and particularly continued Bruce B generation and the obligation of the OPA to quickly procure planned large wind generation from the ample IESO queue, Hydro One submits that the risk associated with the Project is minimal. When situated within the context of a network reinforcement asset with a 100-year lifespan, Hydro One submits that this risk ought to be preferred to that associated with opponents' suggested course of action.

The financial risks associated with the so-called "alternative" of Pollution Probe and the SON are that (i) the Project would be delayed, resulting in locked-in energy costs and a stifled wind generation market, and (ii) the Project might have to proceed in any event, creating a duplication of costs. Moreover, Hydro One submits that these risks are far more probable, as demonstrated by sophisticated modelling on the part of the OPA and the testimony of the IESO that IESO reliability standards would be breached.

¹³² Transcript, Vol. 6, May 8, 2008, p. 79 line 27 – p. 81, line 1.

