ONTARIO ENERGY BOARD

IN THE MATTER OF the *Ontario Energy Board Act, 1998*, S.O. 1998, c.15, Schedule B;

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.

REPLY ARGUMENT OF THE SAUGEEN OJIBWAY NATIONS

Arthur Pape (LSUC# 53180K)
Pape Salter Teillet, *barristers & solicitors*
546 Euclid Avenue
Toronto, Ontario M6G 2T2

Phone: 416-916-2989
Fax: 416-916-3726
Email: apape@pstlaw.ca

Alex Monem (LSUC# 40580W)
546 Euclid Avenue
Toronto, ON M6G 2T2

Tel: 416-916-2989
Fax: 416-916-3726
Email: alex@monem.ca

Counsel for the Intervenor
Saugeen Ojibway Nations

I. OVERVIEW

Hydro One's application presents the Board with an unusual case. Hydro One asks the Board to approve a new line at an extraordinarily high cost, not only to service existing and committed generation assets, but to also service generation that is only anticipated to occur many years in the future.

Hydro One has asked the Board to accept the assumptions that have led it to gamble on these future projects without providing any evidence on the substantive matters that underlie the planning exercise that it and the OPA have purportedly relied upon.

In fact, this very planning exercise and its assumptions were supposed to be the subject of the OEB's review of Ontario's first IPSP that is set to begin in a few months time.

Hydro One has now, in effect, asked the Board to pre-approve those critical elements of the IPSP, and to do so without a sufficient evidentiary record and in an ad hoc way. To approve Hydro One's Project on this basis would be to undermine Ontario's new legislative scheme for the review of strategic level planning decisions, by prejudging aspects of the upcoming IPSP review.

Fortunately, and contrary to the assertions of Hydro One and the OPA, there is no urgency to approve this project. It is clear from the evidence in this hearing, both from Hydro One's and the intervenors' expert witnesses, that technically feasible and cost-effective measures are available to Hydro One to meet the immediate transmission needs for the Bruce area. Hydro One has indicated that it has a plan to implement "near-term" and interim measures, including series capacitors, in the event that there is a delay in approving the line.

The Board should deny Hydro One's current application based on the deep strategic-level uncertainties that exist respecting the predicted future generation projects on which it is based. There will be a great deal more certainty on these matters after the conclusion of the IPSP review, and depending on the outcome of that review, Hydro One could renew its application if the Project is determined to be necessary.

A. Hydro One's Application Depends Critically on Predicted Future Generation

In the current application, Hydro One asks the Board to approve a transmission project designed to service predicted future generation that has apparently been identified through a planning exercise. Hydro One's evidence is that the need for the project is based on a complex planning exercise carried out by the OPA as part of its Integrated Power System Plan (the "IPSP"):

> Under the Electricity Act, 1998 (the "Act"), the OPA has the responsibility for long-term power system planning in Ontario. In accordance with the Act, the OPA is required to periodically develop an IPSP. As part of the IPSP development work, the OPA has identified the transmission system need in southwestern Ontario and in particular for the Bruce Area.[1]

Hydro One's pre-filed evidence confirms that through this exercise "the OPA has determined that a new 500 kV double-circuit transmission line is needed from the Bruce area to the Greater Toronto Area".[2] This basic premise is reaffirmed throughout Hydro One's argument in chief - that the current application is based on a transmission planning system exercise carried out by the OPA, and that the justification for the project relies on a generation forecast prepared by OPA.[3]

Critically, Hydro One's need case is based on OPA's forecasts of future generation projects in the Bruce area that are neither existing nor committed. And, as the evidence has shown, there is a great deal of uncertainty about whether these future projects will be realized.

This predicted future generation includes:

- the refurbishment of Bruce "B", or its replacement, by in 2018, resulting in an additional 1500 MW from the Bruce Complex by 2023; and,

- 1000 MW of additional wind generation beginning in 2014.[4]

From the graph below, it is clear that Hydro One's need case for the Project depends on including the predicted future generation. As explained below, the need case is not made out, and the Project is not justifiable, without the inclusion of these elements.

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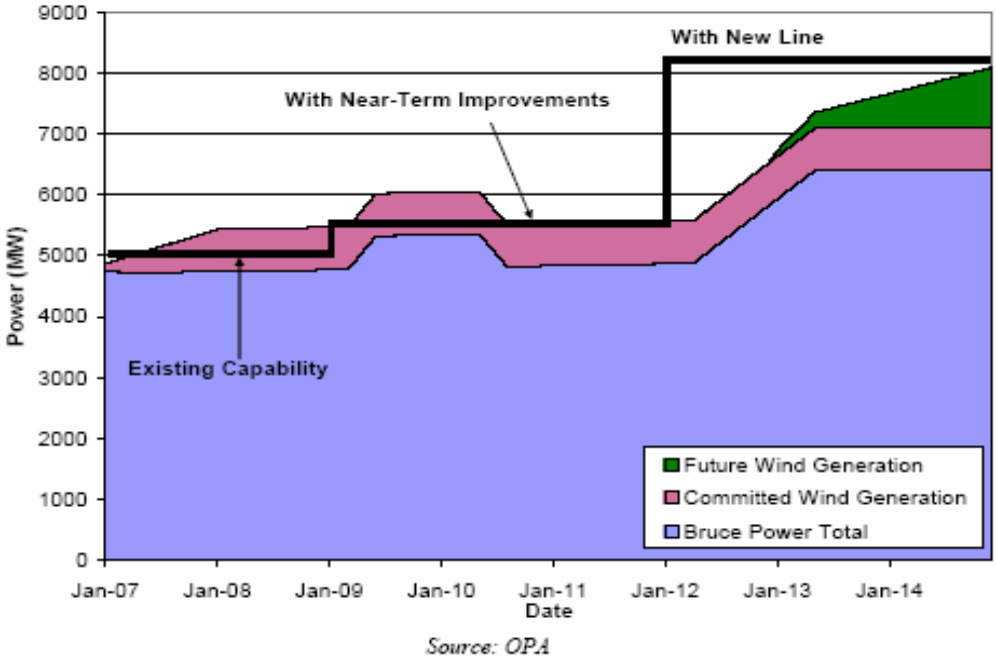
[1] EB-2007-0050, Exhibit B, Tab 1, Sched. 3, at p. 1
[2] EB-2007-0050, Exhibit A, Tab 2, Sched. 1, at p. 1, line 23-25
[3] Hydro One Networks Inc. Argument in Chief, p.1
[4] Hydro One Argument in Chief, p.4

Figure 1

Hydro One Transmission Capacity with Near-Term Upgrades and New Line



Source: Application, Exhibit B, Tab 3, Schedule 1, Figure 1.

B. Uncertainty Respecting Predicted Future Nuclear and Wind Generation

A great deal of the discussion during this hearing has focused on uncertainties respecting the materialization of the 1000 MW of planned wind generation and the refurbishment or replacement of Bruce "B", and serious questions are still unresolved about the "likelihood" of implementing all of these future projects.

There are two different kinds of uncertainty respecting these future generation projects: (1) "operational uncertainty "– the uncertainty that would accompany the approval and development of most large energy projects planned for the future, and (2) "strategic planning uncertainty" - uncertainty relating specifically to strategic-level planning options, such as demand management and forecasts or the appropriate mix of nuclear or renewable energy projects, both province-wide and regionally. Those types of strategic planning options are to be addressed in OPA's analyses and planning exercises contained in its IPSP. Those may, to some extent, have been relied on by Hydro One as the basis of its application, but if so, they have not been examined or reviewed in this hearing.

Operational Uncertainty Respecting Predicted Future Wind

There has been considerable evidence and testimony in this hearing concerning the degree of uncertainty that OPA's predicted development of 1000 MW of future wind generation from the Bruce area will materialize – either at all or when predicted.

SON expert, Mr. Russell noted in his evidence the numerous types of operational uncertainty respecting such wind projects being developed in the Bruce area. Those include (a) wind developers' willingness to compete in a bidding process under procurement rules yet to be developed by the OPA and approved by the Board, (b) the qualifications of the wind developers, including experience and financial strength, and (c) the actual signing of contracts with the OPA. As Mr. Russell stated, "So the fact that someone is in the queue doesn't mean that they're going to hang in there and make a bid and go to contract."[5]

Mr. Russell described other events that could deter developers from actually constructing and completing projects. These events include the acquisition of rights to sites, any environmental assessments and approvals that need to be obtained, financing of the developers to buy the equipment, the acquisition of equipment (which can be difficult with the strong interest in wind power throughout the world). In addition, many of the potential wind projects need additional interconnection, distribution, or transmission facilities (enabler lines) built in order to deliver the power. The ability of a transmission owner such as Hydro One to construct such facilities depends upon its obtaining environmental assessments and other necessary approvals which take time and additional cost to acquire.[6]

Operational Uncertainty Respecting Refurbishment or Replacement of Bruce "B"

Significant operational uncertainty also exists with respect to refurbishing or replacing Bruce "B". The Board heard evidence during the hearing of many instances where the OPA had based its planning assumptions respecting the Bruce Nuclear Complex on poor, outdated and imprecise information. For example, we learned during the hearing from Mr. Chow that OPA's understanding of expected commencement dates for the Bruce "B" refurbishment were obtained from a promotional "PowerPoint" presentation. More significantly, the key parties that would be involved in decisions about the future of the Bruce Nuclear Complex, including Bruce Power and the Ministry of Energy, have not been heard from in this hearing. Rather, we have been left to

[5] Vol. 14, p. 138:25-27
[6] See Vol. 14, pp. 27:9 – 29:25 and 125:16 – 126:2

listen to news reports and press releases for information respecting the future of nuclear generation from the Bruce area, and those have included operational concerns about rapidly escalating costs for nuclear generation, labour supply shortages and uncertainties about competing reactor designs. The Board has no evidence before it of who will make decisions about the future of the Bruce Complex, and by what process or on what timeline.

Of course, any proposals to refurbish or replace Bruce "B" will also be required to go through Environmental Assessment and licensing processes under federal laws and the jurisdiction of the Canadian Nuclear Safety Commission and pursuant to *the Canadian Environmental Assessment Act*.

Significance of operational uncertainties

There are more than the usual number of operational uncertainties associated with the predicted future energy projects on which Hydro One relies for its need case. Those may not, by themselves, raise sufficient uncertainty to defeat the need case, although, at the very least, they certainly emphasize the high degree of uncertainty that the Board should feel about the timelines used by Hydro One to justify its need projections. And those timing issues are particularly important in this case, since they bear directly on whether Hydro One has alternative ways to address the need for upgraded transmission capacity to service existing and committed nuclear and wind generation from the Bruce area.

C. Uncertainty Respecting Strategic Level Planning Issues

However the uncertainty about strategic level planning issues – that bear directly on the predicted future energy projects - are far more serious, in their nature and in their consequences for this Application. It is submitted that those are the matters that should raise the greatest concern for the Board about this Application.

Those strategic-level planning matters should provide a strong foundation for the predictions about future energy projects in the Bruce area. Those matters include demand management and forecasting, conservation targets, the appropriate amount of nuclear energy for baseload, and the appropriate mix of different types of renewable energy projects, including wind, both province-wide and regionally.

Those strategic-level planning matters have not been put in evidence or considered in this hearing. Instead, Hydro One has based its predictions for the future energy projects in the need case on assumptions that rely on (a) a misreading of Ministerial directives and (b) overly simplistic numerical calculations about how those might "reasonably" be implemented.

Assumptions Relied on to Predict Future Nuclear from the Bruce area

Hydro One, in its argument, states that the "Supply Mix Directive" directs the OPA to plan for 14,000 MW of nuclear generation over the life of the IPSP.[7] This assertion is patently incorrect from a plain reading of the Directive, and contrary to this Board's reading of the provision as set out in its decision of March 26, 2008, respecting the Issues List for the IPSP review. Speaking of the Directive the Board states: "[t]he government of the province directed the OPA to "plan for nuclear capacity to meet base-load electricity requirements" and set a limit on the installed in-service capacity over the life of the Plan".[8]

It is clear that 14,000 MW represents an upper limit, and OPA's generation forecast has assumed that planning will be based on the maximum amount of nuclear generation permissible under the Directive. This assumption is the foundation for the testimony of Mr. Chow, and the position Hydro One takes in these proceedings, that there is no reasonable prospect of a decline in generation from the Bruce Nuclear Complex.[9]

It was this mis-reading of the Supply Mix Directive that 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.

An analysis that might justify a decision by OPA to plan for the maximum permissible reliance on nuclear power for base load across the Province – over the term of the IPSP – has not been put in evidence or tested in this case. Instead Hydro One has asked the Board to simply accept this conclusion about the quantity of nuclear energy that will be produced in the Bruce area after 2018, based on four propositions:

- The Supply Mix Directive requires OPA to plan for 14,000 MW of nuclear electricity generation.

[7] At p. 16
[8] At p. 23
[9] At p. 16, , and Vol. 4, p. 21:24 – 24:5.]

- The Bruce Complex has the necessary infrastructure, except for transmission capacity, to continue to produce historic levels of generation
- Local Bruce area community support for continued or expanded nuclear generation
- Bruce Power has expressed an interest in refurbishment and/or new build.

This is hardly the quality of sophisticated generation forecasting or planning that one would expect from Ontario's system planners, in order to decide questions of this importance. It is also more arbitrary than it is reasonable, especially when we consider that (1) the construction of the supply mix directive is wrong, although it constitutes the foundation for this aspect of the need case, (2) the statement about infrastructure is not explained or detailed, and (3) the statement about local community support is unsubstantiated and obviously wrong, in light of the evidence that the Aboriginal people of the area, the SON, have not given their support for continued or expanded nuclear generation from this site.

Assumptions Respecting "Planned" Wind

Likewise, Hydro One asserts that the inclusion of 1000 MW of future wind is reasonable based on the goals set out in the Supply Mix Directive and, now, the August 2007 Directive, and the OPA's planning work designed to achieve these goals.

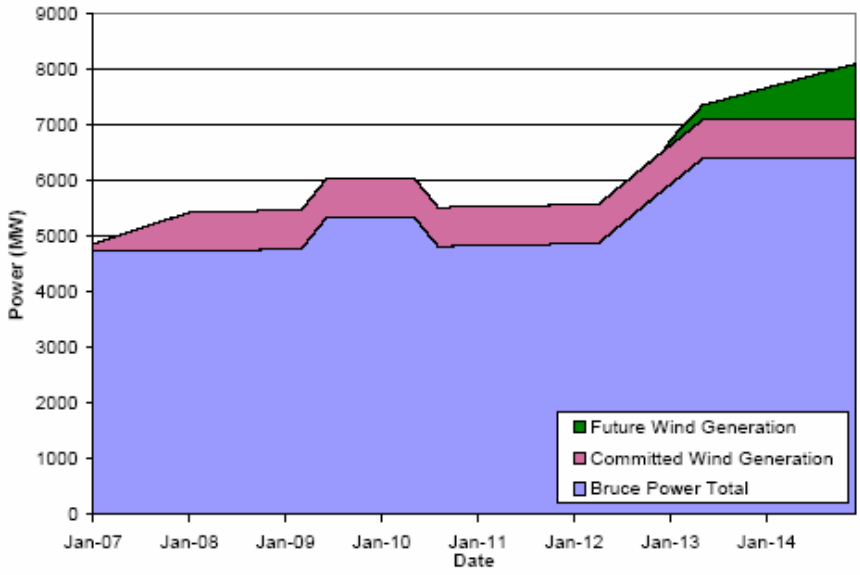
The 1000 MW of planned wind is properly characterized as a *potential* resource by the OPA in its "Analysis of Need for Proposed Facilities" filed and relied upon as part of Hydro One's pre-filed evidence: "[b]eyond the existing and committed resources in the area, the assessment done to date for the IPSP has identified significant potential, about 1000MW, for further renewable energy resource development in the Bruce area. Developing this potential, which would be facilitated by the proposed project, will contribute to meeting the Government's renewable energy resource target."[10]

However, throughout these proceedings, Hydro One has treated the development of this planned wind generation as a near certainty. OPA, on the other hand, recognizes only the possibility of its development: "with the additional wind opportunities of about 1000 MW also identified by the OPA in the area, the total generation in the Bruce area could reach 8,100 MW by the middle of next decade."[11] And, in describing its oft-referred to "Bruce Area Generation" graph, OPA states:

[10] EB-2007-0050, Exhibit B, Tab 6, Sched. 5, Appendix 1, at p. 4
[11] Same, at p. 5

> Our latest studies done for preparation of the Integrated Power System Plan identifies a potential for another 1000 MW or more of wind generation that could be developed in this area. Together, these new resources add to about 1500 MW by 2009, about 2250 MW by 2012, and over 3000 MW in the longer term. The generation increases in the Bruce area between now and 2012, and the possible amounts to 2014 are shown in Figure 1.[12] [emphasis added]

Figure 1: Bruce Area Available Generation (2007 – 2014)



Hydro One has now argued that a Ministerial Directive of August 2007, directing the OPA to undertake activity to acquire an additional 2000 MW of renewable electricity supply in Ontario, is further proof of the necessity of including the 1000 MW of future wind in its current application.[13] However, there is no evidence before the Board of procurements under this directive, or of planning work undertaken by the OPA specific to this directive. Only an unsubstantiated reference by Mr. Chow to 700 MW that has been identified from the Bruce area, presumably in the planning work of the IPSP, that will contribute to meeting the renewable target directed by the government.[14]

Further, it is significant that neither Hydro One nor the OPA suggested prior to the evidentiary phase of this hearing that the August 2007 Directive was the basis for, or had even influenced, OPA's assessment that 1000 MW of "planned" wind will come from the Bruce area. In fact, in its

[12] EB-2007-0050, Exhibit B, Tab 6, Sched. 5, Appendix 2, at p. 2
[13] Hydro One Argument in Chief, at p.8
[14] Transcript, Vol.1, May 1, at p. 84, line 26

updated filings of November 30, 2007, Hydro One includes a revised version of OPA's "Analysis of Need for Proposed Facilities" that specifically lists all Ministerial Directives influencing OPA's planning decisions with respect to the generation forecast for the Bruce area, including an Agreement with Bruce Power dated August 29, 2007. Yet in this document, OPA does not include the August 2007 Directive as factoring into its planning decisions respecting the 1000 MW of "planned" wind, nor is the Directive included in OPA's materials and appendices.[15]

This approach to the Directive was apparently the basis on which Hydro One then decided that future wind projects from the Bruce area would amount to 1000 MW by 2014. That figure is based on 300 MW of small, Standard Offer Wind projects, and the estimated potential of 50% from large wind farms in the Bruce area. Again, these are simple numerical predictions that have not been explained as the product of strategic-level analyses, nor do they take into consideration the multitude of strategic-level and operational concerns associated with implementation of the projects.

Significance of Strategic Level Uncertainties

It is submitted that the Board should not accept the needs case based on Hydro's misconstruction of Ministerial Directives and assumptions instead of strategic level plans and analyses. This is particularly so in this case because these strategic level issues are required to be addressed in the IPSP and ought to be reviewed by the Board in that context. Rather than basing the need case for its proposed Project on assumptions, Hydro One should rely on the planning and forecasting work contained in an approved IPSP.

Purpose of IPSP and Legislated Review Process

Ontario is about to engage in its first review of an IPSP, pursuant to the new scheme in the *Electricity Act*. That review will set the standard for years to come, respecting the quality of analysis and planning that will be expected for future IPSP's, as well as the approach the Board will take in its review of those Plans. The OPA has submitted its IPSP to the OEB for approval, and the evidentiary stage of the review to consider approval is set to begin in fall 2008.

[15] EB-2007-0050, Exhibit B, Tab 6, Sched. 5, Appendix 1, at pp. 1-3

In a decision issued March 26, 2008[16], this Board set out the scope and standard for review of the IPSP. The Board's jurisdiction to review the IPSP and approve the IPSP is found in sections 25.30 and 25.31 of the *Electricity Act*:

> (4) The Board shall review each integrated power system plan submitted by the OPA to ensure it complies with any directions issued by the Minister and is economically prudent and cost effective.

.The Board concludes that: "it is evident that the Board must make findings in accordance with the evidence, assessing that evidence against the legislative tests.[…] All the issues in the review of the IPSP will be considered in the context of these tests in the legislation. In addition, the Board must use its expertise and judgment to determine whether the IPSP as a whole meets the overarching tests of the Act"[17]

Pursuant to the *OEB Act*, section 1 and Regulation *424/04*, in addition to economic efficiency and cost effectiveness, the Board's review of the IPSP must also consider whether the Plan satisfies other requirements, including:

- Identify and develop innovative strategies to accelerate the implementation of conservation, energy efficiency and demand management measures;
- Ensure that safety and economic and environmental sustainability and environmental protection are reflected in the plan.

It is clear from both the governing legislation and the Board's own determinations that the scope and standard of review for the IPSP contemplates an extremely robust investigation of the planning exercise carried out by the OPA in arriving at its IPSP. This investigation will involve the review of volumes of pre-filed evidence, evidence and submissions by numerous intervenors, answers to at least 1300 interrogatories, and many weeks of evidence.

Directives set Planning Parameters for the OPA

In the IPSP, the OPA is mandated to create its proposed plan to meet the goals set out in various Ministerial Directives, and in particular, the June 2006 "Supply Mix Directive", which directs the OPA, among other things, to:

[16] EB-2007-0707 Issues List Decision and Reasons, at p.6
[17] Ibid.

2. Increase Ontario's use of renewable energy such as hydroelectric, wind, solar, and biomass for electricity generation. The plan should assist the government in meeting its target for 2010 of increasing the installed capacity of new renewable energy sources by 2,700 MW from the 2003 base, and increase the total capacity of renewable energy sources used in Ontario to 15,700 MW by 2025.

3. Plan for nuclear capacity to meet base-load electricity requirements but limit the installed in-service capacity of nuclear power over the life of the plan to 14,000 MW.[18]

Throughout these proceedings, Hydro One has suggested that the "Supply Mix Directive" and other Ministerial Directives bind the OPA and determine the planning decisions it can make. This understanding is contrary to the actual language of the directives, and would leave open no areas of discretion within which OPA could exercise its function as electricity system planner. The Directives actually set out planning *parameters* and leave it to the OPA to best determine how the goals in the directives are best achieved. Those discretionary decisions will raise important decisions to be considered by the Board in the IPSP review.

OPA's Planning Assumptions Need to be Tested

Hydro One concedes that the need for its applied-for project relies on OPA's planning work and generation forecast, and that those "forecasts ought to be assessed based on their robustness"[19]. Yet, Hydro One has not introduced any evidence, either pre-filed or through testimony of its witnesses, going to the substantive issues of OPA's generation planning exercise or generation forecast – neither concerning its decisions respecting nuclear generation or the achievement of renewable targets.

However, the OPA's planning decisions respecting nuclear generation is a strategic-level decision to be addressed in the review of the IPSP, and requires a thorough review of other critical areas of OPA's planning work, including its demand forecasting, analysis of the effect of conservation and demand management, and conclusions regarding the contribution of other types of generation to meet base-load requirement.

The Board, in its decision on the IPSP Issues list, has stated that:

> What this proceeding can thoroughly examine are the base-load requirements that drive the need for nuclear development and the flexibility of the Plan to react to

[18] Exhibit B, Tab 6, Sched. 5, Appendix 7.
[19] At p. 16

> situations that alter the assumptions regarding the need for and execution of nuclear projects.[20]

The Board concludes by setting out the issues that must be considered during the review for approval of the IPSP:

> The Board therefore finds that the issues for review of the IPSP in relation to nuclear for base-load are:
>
> 11. Does the IPSP plan for nuclear capacity to meet base-load requirements and limit the installed in-service capacity of nuclear power over the life of the Plan to 14,000 MW?
>
> 12. What is the base-load requirement after the contribution of existing and committed projects and planned conservation and renewable supply?
>
> 13. Is the IPSP's plan to use nuclear power to meet the remaining base-load requirements economically prudent and cost effective?
>
> 14. In the context of the determination of economic prudence and cost effectiveness, is the IPSP sufficiently flexible to accommodate building new nuclear plants or refurbishing existing plants or both?
>
> 15. Is the schedule for implementing base-load resources in light of lead times for supply and transmission economically prudent and cost effective?[21]

Again, a key aspect of the IPSP review will be to assess OPA's plan for achieving the renewable goals set out in Directives. As this Board has stated, the review will necessarily include a consideration of whether "the mix of renewable resources included in the Plan to meet the 2010 and 2025 targets [is] economically prudent and cost effective."[22]

Hydro One witnesses conceded that many of these specific issues will be considered in depth as part of the IPSP review[23]:

> MR. PAPE: Now, these expectations that you have been explaining about where wind power will be developed to meet the targets, those are issues that are going to be examined and reviewed by the Board in the IPSP hearing; isn't that right?
>
> MR. CHOW: Yes. Yes.
>
> MR. SKALSKI: May I just add, Mr. Pape, to an extent they will. The Board has indicated, in its guidelines for the review of the IPSP that it put out, I believe in late 2006, that it was not going to review ministerial directives or generation procurement that was the subject

[20] IPSP Issues list decision, at p. 23
[21] At p. 25
[22] At p. 21
[23] Transcript, May 6, 2008. Vol 4 at p.43

of ministerial directives prior to the IPSP.

MR. PAPE: I'm sorry, Mr. Sabiston, I do not understand what you just said.

MR. SKALSKI: I better try it again.

MR. PAPE: I'm sorry, Mr. Skalski. Excuse me.

MR. SKALSKI: If I could refer you to Exhibit B, tab 4, schedule 3. Once again, that is Exhibit B, tab 4, schedule 3. If you look at the first page, second paragraph, in the OEB's IPSP filing guidelines - that is EB-2006--0207 - essentially what it indicates in the guidelines is that -- just to paraphrase, I think the Board was recognizing that there were certain key decisions that were made by the government prior to the creation of the IPSP, and the Board was indicating that it was not going to revisit those key decisions.
They came in the form of binding directives.

MR. PAPE: Well -- so what you're saying is that the IPSP will not review, for example, the standard offer program?

MR. SKALSKI: I guess my paraphrasing of it would be that there would be limited review of such things as the generation directive that you have just been referring to. Those are decisions that have been taken to require the OPA to source an additional 2,000 megawatts of renewable resources.

MR. PAPE: Well, the IPSP isn't -- I mean, I wasn't under the impression that the Board would review the directive, but would review the ways that the OPA proposes to achieve or fulfil or satisfy those directives. And that includes, for example, the expectation that Mr. Chow has talked about, just in the last few minutes, about up to 400 megawatts of very substantial -- two very substantial wind farms in the central and northern parts of the Bruce Peninsula itself.
Those are issues to be examined in the IPSP hearing. Are you disagreeing?
MR. SKALSKI: No, I am not disagreeing with that.

A robust review of OPA's planning assumptions respecting the development of renewable resources and wind generation must include a full review of the quality and reliability of the wind studies that support OPA's planning decisions, conformance of the IPSP planning and wind procurement procedures with the statutory and Board objectives of fostering competition and cost-effectiveness and avoiding unfair advantage to classes of competitors, transmission costs associated with wind generation and how those have been treated by the OPA, optimizing use of existing infrastructure, other land use issues, etc. The SON, among other intervenors, will question OPA's planning for wind generation, including the targeting of the Bruce area and many of the key assumptions that bear directly on the cost effectiveness, competitiveness and economic prudence of OPA's plan, as well as whether sustainability and environmental protection factors have been properly reflected in these parts of the plan.

OPA's Planning Assumptions have Not Been Tested Here

The complicating and unique aspect of this Application is the decision by OPA and Hydro One to deem it as urgent, and therefore to submit it in advance of the Board's review of OPA's IPSP.

OPA and Hydro One chose to bring this Application in advance of the Board's review of the IPSP, even though the evidence is now clear that they could have implemented – on their own motion and without approval from the Board - near-term and interim measures that would have made it unnecessary to do so.

It is not argued that section 25.30 precludes this Application. Hydro One and the OPA were free to proceed with the current application prior to the completion of the IPSP review. However, it was incumbent upon them to establish a full case for the inclusion of the future generation elements, including sufficient evidence respecting OPA's planning work to allow this Board to fully assess that work according to the standards required for the review of such work in the context of the IPSP review.

Hydro's predictions for future energy projects in the Bruce area - the refurbishment of Bruce B and/or construction of a new Bruce C beginning in 2018, and 1000 MW of additional wind generation beginning in 2014 - were not the subject of substantial evidence that would provide an appropriate degree of certainty to prove the need for the Project. Hydro One has not introduced any evidence, either pre-filed or through testimony of its witnesses, going to the substantive issues of OPA's generation planning exercise or generation forecast. There is no evidence before the Board that would permit it to assess the "robustness" of OPA's planning as contemplated by the governing legislation and the Board's own determinations on the appropriate scope and standard of such an assessment.

It is respectfully submitted that the Board should not approve the current application based on the paucity of evidence respecting related forecasting and planning work. It will inevitably send a signal to the agencies in Ontario's energy industry, as well as to other organizations and constituencies who care deeply about energy policy, that the bar is extremely low for convincing the Board of substantive matters included in the IPSP.

The uncertain and future generation projects relied on for the needs case were originally included in the IPSP. If those are accepted as a basis for the need for the proposed Project, those aspects of the IPSP will effectively have been decided through this application. Yet those decisions will have been made without a consideration of the evidence that would otherwise have

been presented in the IPSP hearing, with respect to those matters. Furthermore by effectively deciding those aspects of the IPSP through this section 92 application, the Board will have failed to review those aspects of the IPSP in accordance with the mandatory statutory requirements. In taking such a course of action the Board will have failed to fulfill its statutory mandate.

Review of IPSP will Bring Certainty Respecting Planning Assumptions

The role of the IPSP is to provide strategic level planning certainty, consistently with statutory requirements and Ministerial directives. That is the kind of certainty that the Board should insist on as the foundation for a needs case that could justify this Application.

The purpose of the IPSP process, including the Board's review mandate, to establish strategic level planning certainty is shown by s. 1(2) of the *OEB Act:*

> (2) In exercising its powers and performing its duties under this or any other Act in relation to electricity, the Board shall facilitate the implementation of all integrated power system plans approved under the *Electricity Act, 1998.*

If and when an IPSP is approved, it will set a course for the development of electricity projects for Ontario, including in the Bruce area, and will provide the strategic level certainty that would provide a basis for this or alternative applications respecting transmission system needs from the Bruce area.

It is submitted that the Board should deny the current application until the review of the IPSP is complete. If and when the IPSP has been approved, and if the planning assumptions that support the need for a new Bruce to Milton line are established, Hydro One can submit another application and the Board can consider it in light of the applicable provisions of that IPSP.

D. Approving Hydro One's Project based on Planning Assumptions Prejudges IPSP

Hydro One asserts in argument that "this case is not about pre-approving elements of the OPA's Integrated Power System Plan ("IPSP") application."[24] However, Hydro One has forced the Board to do just that by seeking approval for its applied-for project based on the inclusion 1000 MW of

[24] At 2

"planned" wind and the refurbishment or replacement of Bruce "B". These two elements of planned generation are core elements of the IPSP, and the approval of the current application based on the certainty that these planned elements will materialize does, in fact, constitute a prejudgment of those elements of the IPSP.

In the result, the Board would have no reason to review the strategic level planning matters discussed above, that bear on OPA's predictions for future nuclear and wind projects in the Bruce area. In the alternative, if the Board did indicate an intention to consider those issues in the context of its IPSP review, the previous decision to allow Hydro One's application on the basis of a needs case that included those future elements would give rise to a reasonable apprehension of bias respecting those matters.

In its Application, Hydro One confirms that its applied-for Project was originally included in the IPSP, but that OPA made a determination that the project "cannot await the outcome of the IPSP proceeding" if it is to meet the earliest possible in-service date of December 2011.[25]

SON is particularly concerned about this problem because a decision by the Board to allow this application on the basis of the inclusion of future energy projects in the need case would unduly influence planning decisions for the Bruce area. SON have a substantial interest in ensuring that electricity projects that target their Territory be planned for and developed in a way that does not adversely impact their rights and interests. It is through the IPSP process, and related consultations, that SON intends to protect these interests. These matters will need to be addressed in the IPSP review, because the Board will need to be satisfied that the plan was developed with proper consideration for sustainability and environmental protection concerns. A decision by this Board that prejudges or undermines the IPSP process risks significant prejudice to SON rights and interests.

It is not necessary, in this case, for the Board to consider prejudging these aspects of the IPSP because, as discussed below, Hydro One does have available to it alternative measures to address the immediate and actual need for enhanced transmission capacity from the Bruce area.

[25] EB-2007-0050, Exhibit A, Tab 1, Sched. 1, para. 4

E. Building Transmission Capacity to "Nameplate" Has Not Been Justified

Hydro One has claimed a need for transmission capability to deliver 100% of the maximum expected installed capability ("nameplate capacity") of future wind generation, both committed and planned, and Bruce nuclear units after the loss of both 500 kV lines on the most critical double circuit towers emanating from the vicinity of the Bruce NGS.[26] This assumption is critical to Hydro One's justification of need for its Project. Without it, existing and committed generation, as well as much of the "planned" generation, in the Bruce area could be delivered at a capacity much lower than 8100 MW.

The evidence in this case demonstrates the complexity of the issue and the uncertainty regarding how intermittent resources like wind generation ought to be treated from a transmission planning perspective.

Rather than offer analyses, evidence, or even sound rationale for its proposal to build to nameplate capacity, Hydro One offers three justifications: (1) it has always been the practice in Ontario to do so, and there is no good reason to depart from the practice, (2) it will reduce transmission congestion which OPA is directed to do by Ministerial Directive, and (3) it will permit the delivery of every last MW of wind.[27]

Like in the case of Hydro One's and the OPA's assumptions respecting planned future generation, Hydro One offers no evidence for these positions, and relies again, on a misconstruction of Ministerial Directives[28]. As described below, the Directive requires the OPA to reduce congestion in a manner that is *cost-effective*. Building transmission capacity to meet 100% of installed generation capacity will always act to reduce congestion, but may risk dramatic and costly overbuild.

Mr. Russell for the SON and Messrs. Fagan and Lanzalotta for Pollution Probe produced evidence raising serious questions about the economic prudence of planning for firm transmission for wind generation.[29] Mr. Russell testified at length on this issues, raising additional concerns, especially those about the cost-ineffectiveness that results from attempting to capture every last MW of wind generation.[30] Hydro One's fundamental response to these concerns has been to rely on the comments of Messrs. Chow and Falvo stating that Ontario's long-standing practice has

[26] SON Evidence, pp.5-6, para 4.J
[27] Hydro One Argument in Chief, at pp.17-21
[28] Same, at p.19
[29] SON Evidence, April 18, pp. 38-42
[30] Transcript, June 11, pp.144-5

been to build to nameplate, and that the new challenge of building for an intermittent sources should not change that.[31]

The substantive issue of how to treat intermittent wind and other renewable resources from a transmission system planning perspective will be thoroughly investigated in the IPSP review. The IPSP Issues List[32], states:

> 24. Does the IPSP plan to strengthen the transmission system to:
>
> (a) Enable the achievement of the supply mix goals set out in the Supply Mix Directive?
>
> (b) Facilitate the development and use of renewable energy resources such as wind power, hydroelectric power and biomass in parts of the province where the most significant development opportunities exist?
>
> (c) Promote system efficiency and congestion reduction and facilitate the integration of new supply, all in a manner consistent with the need to cost effectively maintain system reliability?
>
> 26. Is the IPSP strategy for transmission economically prudent and cost effective?

It is certain that intervenors in that proceeding, including SON, will wish to investigate and critique OPA's assumptions on building to nameplate capacity for wind generation resources. As discussed above, the applied-for project was originally a part of the IPSP, but was pulled out by the OPA based on a deemed urgency. Consequently, the prudence of building to nameplate in respect of this project will not specifically be considered during the IPSP. However, a decision to approve Hydro One's project based on this assumption will dramatically influence the nature and scope of investigation on this issue.

Further, as demonstrated by the evidence in this hearing, Hydro One and the OPA have fallen far short of providing sufficient evidence and justification on which the Board could make a decision on the reasonableness of its assumptions. The Board should deny the current application to allow the issue to be explored more fully during the IPSP review.

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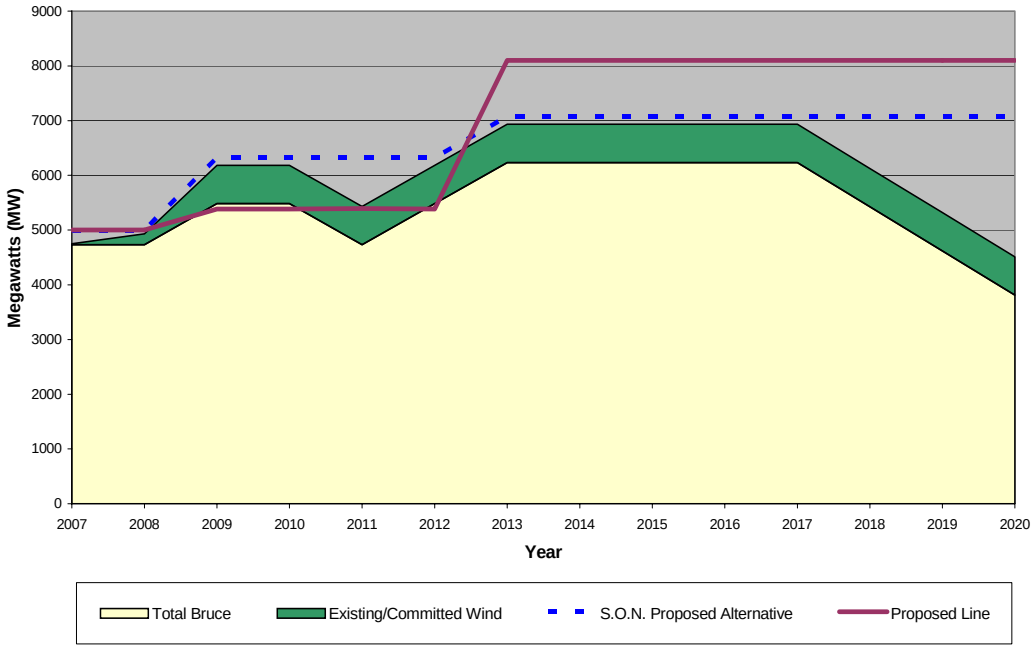
[31] Transcript, Vol. 2, May 2, p 89, 14-
[32] EB-2007-0707 IPSP Issues, Decision with Reasons, March 26, 2008, Appendix A

F. Hydro One's Project Cannot be Justified without Assumptions about Future Generation or Building to Nameplate

It is clear from the evidence that Hydro One's applied-for project cannot be justified or approved without the inclusion of future generation of 1000 MW of wind and the continued generation of 6200 MW - 6400 MW from the Bruce Nuclear Complex beyond 2018, or if its stated need to build firm transmission for wind resources is not accepted.

As demonstrated by graphs produced independently by experts for Pollution Probe and SON, the construction of the proposed project results in significant excess transmission capacity beginning in 2013 and continuing for the service life of the project reaching a level of more than 3000 MW of excess capacity as current Bruce "B" reactors reach end-of-life.

S.O.N. Analysis of Committed Capacity



[SON Evidence, p.12, figure 2]

The evidence before the Board is that a 635 million dollar capital expenditure cannot be justified to meet the actual increased need arising in 2013 when refurbished Bruce "A" reactors and 700 MW of committed wind come into service, and is only required for 5 years until Bruce "B" units begin to go out of service. As discussed below, experts for both SON and Pollution Probe have independently identified alternatives that far better meet this actual need at a substantially lower

cost, and allow OPA and Hydro One to plan for and construct further transmission upgrades as the need becomes more certain.

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NPV Analysis Cannot Justify Project without "Planned" Generation

Although not the basis of its original application, Hydro One suggests in argument that its applied-for project might still be preferred to alternatives even when the assumption of a Bruce "B" refurbishment is taken out of the need analysis. [33] It says so because the OPA's financial evaluation model indicates that the Project would have a lower NPV in the very long term than the NPV associated with alternatives that OPA modeled. Hydro One witnesses testified on a number of occasions that, even without the possibility of Bruce B refurbishment, they would still prefer the construction of a new line.[34]

Hydro One's position now appears to be that its applied-for project can be justified, and the application can be approved, even when "planned" generation elements are removed from the need analysis. In so doing, Hydro One suggests that the Board can approve of this Project, and the 635 million dollar expenditure, not on the basis of a current demonstrated need, but on the basis that OPA's financial model predicts a cost savings that may occur in the distant future.

A critical problem with Hydro One's position is that OPA's financial evaluation model does not represent the case where all "planned" generation is removed. There is no evidence before the Board respecting the NPV of the Project compared to alternatives that do not include 1000 MW of "planned" wind. This is highly significant as most, if not all, of the locked-in-energy penalties attributed to alternatives are the result of up to 1700 MW of wind generation. The Board simply has no evidence to determine whether the applied-for project has a lower NPV than alternatives when "planned" generation of 1000 MW of wind and Bruce "B" refurbishment or replacement is removed from the analysis.

Further, OPA's financial evaluation model itself has been the subject of significant scrutiny and criticism during these proceedings raising doubt about the reliability of the model and the uses to which it has been put by Hydro One and the OPA. These are discussed in section III.E., below.

[33] Hydro One Argument in Chief, at p.26
[34] Transcript, May 5 at p.129

III. ALTERNATIVES TO PROJECT BETTER MEET ACTUAL NEED

A. Actual Transmission Needs for Bruce Area Generation

From the graph above ("SON Analysis of Committed Capacity"), it is clear that there is an actual need for transmission upgrades to accommodate existing and committed generation from the Bruce area.

With the expected addition of the 700 MW of committed wind generation in 2009, as well as the return to service of the refurbished Bruce "A " 1 and 2, the total nameplate capacity of generation in the Bruce area will surpass the available transmission transfer capacity. By 2009 the transmission capacity will have increased to 5,385 MW as the near term measures are installed, while the Bruce complex will have added two units, but taken another out for refurbishment, leaving a need for approximately 800 MW of additional transmission capacity.

With the refurbishment of all four Bruce A units completed by 2013, the upgrades to the Bruce B units of 40 MW each, and the committed wind, the total generation in the Bruce area by 2013 will total approximately 7100 MW. With only the existing transmission capacity and the near term measures, the transmission capacity will total 5385 MW, leaving a need for approximately 1700 MW of additional transmission capacity.

In addition to existing and committed generation, there is considerable uncertainty respecting future generation from the Bruce area that needs to be considered and planned for. Depending on a number of factors, including the outcome of the IPSP review, future planning decisions, regulatory approvals, development decisions, competitive procurements, etc., generation from the Bruce area could increase or decrease substantially from current levels.

The evidence in this case has shown that future generation from the Bruce area, given what is now known, could be as low as 6250 MW starting in 2018 if Bruce "B" units begin to retire and are not replaced, and if planned wind generation is not fully realized. By 2022, the Bruce area generation could be as low as 3700 MW if only Bruce A and the committed wind generation is installed[35].

At the other end, generation from the Bruce area could reach as high as 8100 MW if Bruce "B" is refurbished or is replaced, and the full 1000 MW of planned wind is realized. This amount could

[35] See chart above, SON Evidence p. 12, Figure 2, and p. 14. Also, Chow, at Vol. 4, 23:7-12 notes loss of 3400 MW with Bruce B retired. 7100 MW – 3400 MW = 3700 MW

increase further if new build occurs at the Bruce Complex, and the new reactors are larger than the current Bruce "B" reactors. If potential wind generation is developed beyond the 1700 MW level now planned or if Bruce generating capacity is expanded beyond 6400 MW, the OPA will have to choose between a substantial increase in locked-in energy or upgrading transmission to a transfer level beyond 8100 MW.

As is discussed in more detail below, construction of series capacitors as an interim measure (before construction of the new Bruce-Milton Lines) will enhance Hydro One's flexibility and ability to upgrade the Bruce transmission system (even after construction of a new Bruce-Milton Lines), will make those upgrades more scalable and lower their incremental cost.

B. Suitable Project Must Be Scalable to Meet Increased and Reduced Needs

The Board in setting its Issues List in this case has recognized the importance of upgrading transmission capacity in a way that is sufficiently scalable to meet all reasonably foreseeable future needs of significantly increased or significantly reduced generation in the Bruce area.[36] Given the actual transmission needs from the Bruce area, and the uncertainty about future needs, it is imperative that a suitably chosen project, or course of action, be able to service current needs and accommodate various future generation scenarios.

It is uncontested that Hydro One's chosen project cannot be scaled down to meet any transmission need less than the full 8100 MW from the Bruce area. A new double circuit 500 kV line would take transfer capability from 5000 MW to 8100 MW regardless of eventual generation from the Bruce area. As shown above, this could result in excess capacity of more than 3000 MW by 2020.[37]

Hydro One argues that its applied-for project need not be downwardly scalable as there is no reasonable possibility that there will be a decline in forecast generation from the Bruce area.[38] For the reasons above, this position cannot be accepted in advance of decisions on the substantive matters being considered in the IPSP review.

[36] OEB Issues Day – Decision and Order, September 26, 2007, Appendix "A", item 1.4
[37] SON Evidence, p. 14
[38] HONI Argument in Chief, at p. 45

C. Hydro One Failed to Identify or Consider Reasonable Alternatives

As part of its application, Hydro One was required to identify and consider all reasonable alternatives to its applied-for project. It was further required to apply an appropriate evaluation methodology to all considered alternatives.[39] Following these preliminary steps, it was required to undertake a rigorous analysis of all reasonable alternatives, as set out in section 2.0 of the Issues List, and put the results of that analysis in evidence in its application.

Hydro One employed a "go / no go" screening approach that had as a threshold requirement that the only those alternatives capable of servicing 8100 MW of generation from the Bruce area would be considered.[40] Hydro One determined this threshold of "required capability" based on its inclusion of "planned" generation of 1000 MW of wind and the refurbishment or replacement of Bruce "B". It did so despite the inherent uncertainties respecting these future elements of generation, and despite the fact that substantive issues respecting these future projects are the subject of the upcoming IPSP review.

As a consequence, Hydro One's evaluation methodology for determining reasonable alternatives was "short-circuited", and it refused to consider any alternative that would provide transfer capability for a lesser amount of generation from the area, or provide flexibility to accommodate uncertainty respecting generation in the area.

Hydro One freely admits this lack of downward scalability in its argument:

> As explained by Mr. Chow, it is not of any use to fully consider project alternatives which, from the outset, cannot be implemented because they do not meet key requirements. The screening approach identified the Project as the only reasonable alternative, such that issues 2.1 through 2.4 on the Issues List relate to the content and adequacy of the screening process used to identify and consider the Project. Had there been more than one option, additional steps would have been followed using the OPA's evaluation methodology to determine the preferred option. Because that was not necessary in these circumstances the OPA and Hydro One took a reasonable and prudent approach.[41]

Because of its determination that 8100 MW of transfer capability was required, and by its own admission, Hydro One "screened out" and failed to evaluate, at least, the following reasonable alternatives of which it was aware:

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[39] EB-2007-0050 Issues List, item 2.1and 2.2
[40] Technical Conference, 10/15/07, p. 27:1 – 29:18; Exhibit C, Tab 1, Schedule 2.4
[41] Argument at p.46

- Series Capacitors on 500 kV lines
- Bruce to Essa 500 kV line
- Bruce to Longwood to Middleport 500 kV line[42]

Each of these alternatives could service generation what currently exists or is committed under certain conditions. Yet, Hydro One has not undertaken any of the analysis respecting these alternatives as contemplated by section 2.0 of the Issues List. Respecting the series capacitors alternative, for example, a number of disputed issues arose during the hearing that stemmed from Hydro One's failure to undertake and complete requisite study and analysis of this alternative, including:

- The cost-effectiveness of installing series capacitors and achieving the bulk of the transmission capacity expected by Hydro One,

- The lack of follow-up by Hydro One and OPA on the planning and design studies that Mr. Woodford projected would need to precede the installation of series capacitors. Those studies are projected to consume almost three years of time. The lack of follow-up lasted from April 2006 when the IESO found that series capacitors were feasible until March 2007 when Hydro One hired Mr. Woodford's firm to examine the feasibility of series compensation in Southwestern Ontario,

- Failure to proceed with studies recommended by Mr. Woodford.

- The determination of a realistic and possible transmission capacity limit with the installation of series capacitors, including studies of the cost effectiveness of employing high capacity conductors or more than 30% series compensation and studies of any voltage support that might be required in order to maximize generation rejection with a series capacitor alternative,

- The determination of the costs of supplying any increased need for voltage support, including conversion of Nanticoke to synchronous condensors,

- Expanding the amount of contractually interruptible loads and the possibility of amending interconnection contracts with Michigan and New York so as to lift the 1500 MW limit on emergency purchases, and

[42] Argument, summary chart at p.47

- The requirements and design of a Bruce Special Protection System ("SPS") that would include series capacitors.

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 has, by its own admission, not done this. Its failure to do so has left the Board with no fully developed cost evidence concerning reasonable transmission alternatives with transfer capabilities less than 8100 MW.

As a consequence of Hydro One's failure to have considered these issues, the Board cannot conclude that Hydro One considered all reasonable alternatives.

D. Series Capacitors as a Better Alternative than the Applied-For Project

An alternative based on Hydro One's Near-Term measures, series compensation and generation rejection (the "series capacitors alternative") was identified by expert witnesses for both SON and Pollution Probe as a better alternative to the applied-for Project given the established need from the Bruce area. The series capacitor alternative was demonstrated to be more cost-effective, better able to match actual transmission requirements and scalable to accommodate significantly increased or decreased generation from the area in the future.

The series capacitor alternative, according to the IESO system impact assessment (Exhibit C-4-1, Attachment 2) and Hydro One's response to S.O.N. Interrogatory No. 10, can deliver up to 7476 MW, as explained by Mr. Russell in his direct evidence at P53-55 (pages 36-37) and as described at the hearing at Vol. 14, page 33:15—34:7, so long as generation rejection is included as part of the alternative. In addition to admitting that this 7476 MW transfer capability can be achieved (with additional voltage support), Hydro One confirmed in various interrogatory responses that the series capacitors alternative can provide a transfer capability of 7076 MW under stressed conditions and up to 7176 MW under average conditions [see Table 3 of Attachment A to PP#47].[43]

[43] See Exhibit C-2-16; Exhibit C-5-2. The 7176 MW transfer capability cited in Table 3 of Attachment A to PP#47 was achievable as a result of Hydro One's changed assumption with respect to NBLIP, basically reducing the eastward flow from generating resources in Michigan and Sarnia/Windsor that is superimposed on the binding constraint, the Longwood-Nanticoke 500 kV Line extending east from Longwood substation.

The 7076 MW transfer capability, would enable Hydro One to transmit the full nameplate capacity of 6400 MW of all eight Bruce units, as well as an additional 676 MW— approximately the nameplate rating of the committed wind. In his evidence, Mr. Russell explained that an additional 300 MW of transfer capability can be achieved, according to Exhibit C-5-10, which would enable Hydro One to transmit the full 700 MW nameplate capacity of committed wind, as well as an additional amount of planned wind, to be delivered from the Bruce area. And as both Pollution Probe and SON witnesses have made clear, the series capacitor alternative will enable Hydro One to transmit 87% - 91% of the full nameplate capacity of OPA's assumed 8100 MW of generation at a cost $535 million below that for the proposed Bruce-Milton Lines.

Mr. Russell emphasized in written evidence and testimony that the series capacitor alternative would permit a staged approach to planning where current needs could be met and further upgrades could be planned for and implemented if and when the need becomes more certain.

E. NPV Analysis Supports Use of Series Capacitors as Part of Scalable Planning Approach

Mr. Russell testified that a series capacitor based alternative would not necessarily represent a long-term or stand-alone transmission upgrade to provide an outlet for generation in the Bruce area. Instead, he suggested that such an alternative 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 generation from the Bruce area become more certain.

In every case, this staged approach would allow OPA and Hydro One to meet the pressing current transmission needs, and provide some measure of time for various planning and development decisions respecting future generation to take place.

NPV Analysis Demonstrates Planning Value of "Cross-Over" Points

SON and Pollution Probe witnesses have raised a number of serious concerns about the reliability of OPA's financial evaluation model and the value that the resulting NPV graphs have from a planning perspective. However, the model and graphs demonstrate a critical point: under

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Hydro One contends that incremental voltage support would be required in order for the transmission system to achieve a transfer capability of 7476 MW.

all scenarios, a cross-over point occurs at some point in the future where the cost of the alternatives are equal. 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.

In its evidence, SON has produced a number of graphs based on OPA's model that show NPV under various scenarios and assumptions. Each graph demonstrates that, depending on the scenario and assumption, the "cross-over" point can be moved further into the future, thereby giving OPA and Hydro One more time to determine actual transmission needs.

Mr. Russell used OPA's financial evaluation model to perform several runs using varying assumptions. His runs calculated the cumulative NPV for both the proposed project, as well as two different series capacitor alternatives: one with a transmission capacity limit of 7176 MW, as used by OPA, and one with a higher, 7476 MW limit that Mr. Russell demonstrates Hydro One is capable of achieving with series capacitors and generation rejection. The scenarios showed various cross over points. Those results of those graphs are reproduced in the chart below.

Cross Over Points of Cumulative NPV

Type of Run	7176 MW Limit	7476 MW Limit
Bruce B retired starting in 2018, including $70 million in voltage costs [SON Supplemental Evidence, App. A, p. 4]	2018	2019
Bruce B refurbished starting in 2018, including $70 million in voltage costs [SON Supplemental Evidence, App. A, p. 2]	2018	2020
J14.2 Bruce B refurbished done by 2024, 7476 run constructs line starting in 2021, 10% rate [Undertaking J14.2, p. 4]	2025	2021
Bruce B refurbished starting in 2018, no additional voltage costs [SON Supplemental Evidence, App. A, p. 1]	2018	2024
Bruce B refurbished earlier per PP#19, including $70 million in voltage costs [Exh. K14.1, p. 2]	2023	2024
Bruce B refurbished earlier per PP#19, no additional voltage costs (Exh. K14.1, p. 1]	2023	2026
Bruce B retired starting in 2018, no additional voltage costs [[SON Supplemental Evidence, App. A, p. 3]	2018	2030
J14.2 Bruce B refurbished starting in 2018, locked in energy costs reduced by costs of wind energy [Undertaking J14.2, p. 7]	Post 2030	Post 2030

What the various graphs demonstrate is that, depending on the scenarios and assumptions that are made, and without needing to correct the errors of the model, the “cross-over’ point may be as early as 2018 or sometime after 2030. These dates suggest Hydro One could install a series capacitor alternative now and benefit from a large window of opportunity to make decisions on whether and to what extent future transmission upgrades are necessary based on actual generation from the Bruce area.

Hydro One in argument has taken issue with the cost assumptions made by SON experts in their modeling of the various scenarios. In particular, Hydro One has criticized the 70 million dollar cost attributed to voltage support purportedly needed to increase the transfer capability under the series capacitor alternative from 7176 MW to 7476 MW. However, the evidence shows that neither Hydro One, the OPA, nor the IESO has ever studied the actual costs that might be incurred for the level of voltage support contemplated in this scenario. Rather, Mr. Falvo’s testimony on the matter was speculation based on costs identified in a different study for different purposes. Moreover, Hydro One witnesses admitted that they had not studied the costs associated with using Nanticoke for voltage support, which their studies indicate to be technically feasible and which could drastically reduce the costs of the required voltage support.

Again, it was incumbent on Hydro One to study, and introduce evidence on these issues as part of a proper assessment of reasonable alternatives.

NPV Analysis Cannot Reliably Show Comparative Value

Hydro One, throughout these proceedings, has suggested that OPA’s economic evaluation model can be used to justify its applied-for project because the NPV analysis demonstrates it to have a lower long-term cost than the other alternatives modeled. The evidence in this case shows that OPA’s model cannot reliably be used in this way: first, the model has been designed for a specific purpose and has inherent limitations that prevent it from being used to demonstrate comparative value of various alternatives; and second, the model makes certain assumptions and has certain flaws that have been identified by experts from SON and Pollution Probe that cast doubt on its reliability as a planning tool.

Model Cannot Demonstrate Comparative Value of Various Alternatives

Hydro One wishes to use OPA's financial evaluation model to demonstrate that the applied-for project ought to be preferred over other available alternatives. OPA's model cannot be used in this way because it contains numerous errors and is based upon erroneous assumptions, both implied and express.

As summarized in SON Undertaking J 14.1 and J 14.2, the model fails to attribute value to the series capacitor alternative for:

- savings of between $53.1 million and $58.9 million per year achieved from delaying capital costs and operating costs of the proposed Bruce-Milton line.[44]

- on-going value of the installation of series capacitors

- System planning flexibility resulting from the installation of series capacity, including:

    - upward scalability of the transmission system at a lower incremental cost to more closely match actual transmission needs as they become certain (e.g., by such means as increasing series compensation from the currently proposed level of 30% to a higher level, or construction of a single circuit 500 kV line, either from Longwood-Nanticoke or on double circuit towers from Bruce to Milton.).

    - upward scalability to a greater overall transfer capability in the event that generation from the Bruce area in excess of 8100MW is approved and installed in the future (e.g., development of wind potential greater than 1700MW, or development of Bruce "C")

- The economic penalty incurred by ratepayers if Bruce "B" is not refurbished or full wind is not developed and $635 million dollar capital cost of the proposed Bruce-Milton line is stranded.

- Intangible benefits, including, (1) the optimization of existing infrastructure, (2) lessening concentration of transmission assets in a single right of way, and (3) not unduly

[44] See Exhibit 4, Tab 4, schedule 4, pages 3-5.

influencing decisions, or competitive balance, respecting the development of future generation by constructing excessive transmission capacity ahead of established need (4) reduced environmental and land-owner impacts.[45]

Flaws and Faulty Assumptions in Model

In addition, experts for SON and Pollution Probe have identified a number of flaws and faulty assumptions in OPA's financial evaluation model which cast doubt on its reliability. Again, these are summarized in SON Undertaking J.14.1 and J. 14.2:

- the model does not accurately measure avoided thermal costs or the costs avoided by the ratepayer when wind energy is locked-in. Furthermore, the model uses unduly low and dated avoided cost data.

- model erroneously assumes wind energy is free to ratepayers, and that only the predominantly thermal energy replacing locked-in wind energy would have a cost. However, when wind output is increased in any hour, ratepayers incur an incremental cost of 7.9-11 cents/kWh reflecting the rates paid to wind generators. Similarly, ratepayers are relieved of those payments to wind generators if wind energy is locked-in. (See Undertaking J7.2 and Transcript for 5/13/08, p. 59.)

- transmission penalty was modeled incorrectly by assuming the same derating in every seasonal period. Actual transmission data shows most large deratings occur during the spring and fall, when avoided costs and loads are lower and when both transmission facilities and generation tend to be taken out together for maintenance.

- The model does not consider losses or outages of enabler lines for wind.

- The model incorrectly accounts for spatial diversity of wind production in the vicinity of Bruce.

[45] Mr. Chow agreed with the suggestion by Board Member Ms.Chaplin that these factors would need to be considered in conjunction with an NPV analysis to determine a preferred option. See Transcript Vol 5, May 7, p182 17-

- The model does not include any costs for upgrades to switchgear and substations needed at Milton Substation in order to accommodate the higher fault currents that will result from construction of the Bruce-Milton Line. (See Transcript for 05/07/2008 at page 178.)

It is clear that OPA's financial evaluation model is not, by itself, a viable system planning tool.

F. Series Capacitor Alternative Provides Lasting Benefits

SON has filed evidence outlining the on-going benefit that series capacitors would have, even in the event that it was determined at a later date that a new line was required to service increased generation from the Bruce area. These benefits include:

- Allowing the transmission system to withstand outages in a more reliable manner,
- Lower transmission reactive losses with both the new line and series capacitors as compared to a scenario without series capacitors,
- Insurance against delays in construction of Hydro One's preferred line,
- Reduced need to reject generation and/or load before the proposed line enters service, and
- Potentially lessens the incremental cost of reinforcing the Bruce area transmission system to a level beyond 8100 MW.

Hydro One has suggested in argument that if series capacitors were installed and that a new line were subsequently built, that the series capacitors would become redundant.[46] The inference is clear that series capacitors have no lasting value from a transmission planning perspective. Mr. Chow testifying on behalf of Hydro One originally took this same position:

> MR. PAPE: That wasn't the point of my question, sir. The point of my question was your suggestion that those options, which involve series capacitors on the lines, were only short-term -- that those series capacitors could only be used in the very short term and that they would have no value if it was later decided that a line had to be constructed.

[46] Hydro One Argument in Chief, p. ?

> MR. CHOW: As I indicated earlier, if the decision then is to build a Bruce-to-Milton line, then those capacitors are really of no value. It is for the 8,100 megawatts of forecast generation up at the Bruce.[47]

However, when the question is again put to Mr. Chow by Board Member Ms. Chaplin, Mr. Chow conceded that there may well be lasting benefits:

> MS. CHAPLIN: Okay. And then finally, in response to, again, a question from Mr. Pape -- and this was in the area of series compensation -- a response was given saying that if the Bruce-to-Milton -- if series compensation were put in, for example, and then the Bruce-to-Milton line were subsequently built, that the series compensation would then be of limited value. Do you recall that?
>
> MR. CHOW: Yes. I also qualified, if the level of resources that's ultimately developed of the Bruce is 8,100 megawatts.
> MS. CHAPLIN: Right. And I would just like to understand, and I will give you this scenario, and then follow with my question.
>
> If you were to -- if Hydro One were to implement all of the identified near-term and interim measures -- so these are the Hanover-to-Orangeville and the shunt capacitors -- and the series compensation, and to continue with the generation rejection -- so let's say they were to do that until there was greater certainty about future generation in Bruce. So perhaps if there would be more wind than the 50 percent, or if there would be refurbishment or not of Bruce B.
>
> Are you saying that, in effect, if the Bruce-to-Milton line were eventually built, that those investments, or some amount of those investments, will in a sense be stranded and that capacity will be useless?
>
> MR. CHOW: Well, if the -- the way I would answer the question is, without series compensation, just with the near-term measure, because the near-term measure is common to all the alternatives -- with the Bruce-to-Milton line, you could get 8,100 megawatts of capability.
>
> If the resource level up there is -- is only an additional 3,100 megawatts, then that's all you need from the system perspective to incorporate the full value of the new generation, which is all the Bruce units and 1,700 megawatts of wind capacity.
>
> So any additional capacity, although it is welcome, it doesn't provide you any more ability to hook up additional generation, other than if additional generation is developed beyond the 8,100-megawatt level. So in other words, let's say another 500 megawatts of wind. Then the series compensation would be useful.
>
> Now, whether that is useful for where they are located, that I cannot tell you at this point. I think additional improvement on the system, beyond those, would be required.

[47] Transcript, May 6, p.131

More telling, however, is the fact that Hydro One and the OPA plan, themselves, to install series capacitors in the event that there is a delay in the in-service date of the applied-for project. At no point in their application or evidence does Hydro One complain that the series capacitors will become redundant in this case.

A key distinction between the plan that OPA and Hydro will follow, and the approach identified by SON's expert, is that in Hydro One's plan the new line will be built regardless of actual transmission needs from the Bruce area. This plan is far more likely to result in excess transmission capacity. SON experts have advocated an approach that would delay the decision on the requirement of a new line until the need for increased transmission was more certain, thereby ensuring a cost-effective, incremental development of transmission system upgrades.

F. Hydro One and OPA Plan to Use Series Capacitors in Event of Line Delay

Although the history of the series capacitor alternative in the planning of the OPA , Hydro One and IESO is not clear from the evidence in this case, it seems relatively certain now that Hydro One and the OPA plan to implement series capacitors as an "interim measure" in the event of a delay in the in-service date of the line.

Series compensation was originally considered for increasing the Bruce area transmission capacity as evidenced in Hydro One's April 2005 application to IESO.[48] It was subsequently rejected as a possible alternative once OPA planning indicated that the required transmission from the Bruce area was 8100 MW.

Since this time, series compensation has consistently been a part of OPA's and Hydro One's planning in the event that there is a delay in the approval or in-service date of the line. [49] During this hearing, witnesses for Hydro One testified that series capacitors remain part of OPA's and Hydro One's plans. Mr. Chow states "we classified the series compensation as acceptable use as an interim measure, in case there is a significant delay in the in-service date of the transmission line". [50]

[48] Exhibit C, Tab 4, Sched. 1, Attachment 2, page 1
[49] Exhibit B, Tab 6, Sched. 5, Append. 2, page 3
[50] Transcript, Vol. 1, May 1, p.92, 9-12

This position is confirmed again by Hydro One in its argument-in-chief, that series compensation is a tested, feasible and available measure to accommodate delays in the in-service date of the line:

> The interim measures proposed for the Project contemplate the use of series capacitors, if required as a result of Project delays. Series capacitors would be a new technology to what is a critical part of the Ontario power system. However, Mr. Woodford's report concluded that series capacitors could be installed in southwestern Ontario provided that necessary studies were undertaken. Hydro One and the OPA have identified the necessary studies, and the Project provides for sufficient time in which to carry them out to put series capacitors in place during 2012, if necessary. This risk has been carefully considered and addressed.[51]

G. No Evidence that Series Capacitor Alternative would Not Comply with Reliability Criteria

Hydro One has made much of its position that continued use of generation rejection as part of a series capacitor alternative would run afoul of applicable reliability standards.[52] In support of this position, it relies on various comments made by Hydro One witnesses, reference to letters from the NPCC respecting an application by the IESO to approve an expanded Bruce Special Protection System, and the recently amended Ontario Resource and Assessment criteria ("ORAT").

What is absolutely clear from the evidence is that no responsible regulatory authority has been asked to assess, or has made an assessment, on whether an alternative based on series capacitors for its compliance with reliability standards. Neither Hydro One, the OPA nor the IESO have studied or designed a series capacitor / generation rejection solution with sufficient detail and precision to permit any reliable assessment of its functional attributes or compliance with applicable reliability criteria. 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.

[51] Hydro One Argument-in-Chief, at p.62
[52] Hydro One Argument in Chief, at p. 51

Hydro One would design and apply for new "BSPS" for series capacitor alternative

Hydro One has argued, and its witnesses have suggested, that the IESO's current application to the NPCC for approval of an expanded BSPS as part of the near-term and interim measures has some relevance to the issue of whether generation rejection as part of a series capacitor alternative would be permissible under reliability criteria. Hydro One has suggested in argument that a series capacitor alternative utilizing generation rejection has "inspired concern on the part of the NPCC".[53] This suggestion is patently false – the NPCC was not asked to consider generation rejection as part of a series compensation alternative. It was asked, and has indicated that it will approve, a generation rejection scheme that is much expanded from historical levels, and that is likely much more expansive than what would be required if series capacitors were in place.

In his evidence, Mr. Russell stated that by coupling series capacitors with the near term measures, the IESO will need to arm fewer megawatts of load and generation in almost every conceivable scenario. That is so because, after the critical N-1 event, the transfer capability away from Bruce with series capacitors is 6326 MW whereas that transfer capability with the near term measures alone is only about 5400 MW. Clearly, the IESO would need to arm fewer generators for rejection in order to reduce post-contingency generation to 6300 MW than would be the case to reduce post-contingency generation to 5400 MW.

Further, it is Hydro One's own evidence that it would not continue to rely on the expanded BSPS that is currently the subject of an IESO application to NPCC in a situation where significant transmission system upgrades have been put into place. In its evidence, Hydro One has suggested that a new BSPS would be applied for if a new line were put into operation. Likewise, in a Hydro One undertaking respecting a revised implementation schedule for series capacitors a significant amount of time has been allocated for an application to NPCC for a new BSPS. The evidence in this case is clear - if a series capacitor alternative is planned for, designed and implemented, an assessment of compliance with criteria will be made at that time.

Hydro One witnesses have speculated that a series capacitor alternative would be more operationally complex.[54] Mr. Russell testified that while there may be some increase in operational complexity resulting from the installation of series capacitors, there may well be a reduction in complexity resulting from the need to arm fewer megawatts and fewer generators for rejection, a reduction or elimination of the need to reject load, and, if the BSPS is triggered,

[53] Argument at p.51
[54] Vol. 3, pp. 102:23 – 103:4

rejection of fewer megawatts overall generation and/or load.[55] Hydro One's own position is that series compensation can work in the Bruce network, and that any operational complexities must be studied in order to ensure that implementation occurs in a reliable way.[56]

Again, if the OPA and Hydro One intend to implement a series capacitors based alternative, a new SPS will be specifically designed and approval applied for in the normal course. Hydro One has asked the Board to speculate on how the NPCC might respond to a such an application based the NPCC's preliminary responses to a completely different SPS.

New ORTAC criteria do not preclude use of GR

Hydro One relies on newly developed ORTAC language for its position that long term use of generation rejection does not meet IESO's reliability criteria, and is consequently not a long term planning option.[57] Two separate issues need be addressed here: (1) there are real questions about the IESO's authority to create new and substantially stricter reliability criteria, and (2) SON experts have not advocated the long term use of generation rejection as part of a series capacitor alternative.

The IESO recently undertook a revision of its ORTAC.[58] Hydro One submitted comments as part of a stakeholdering process in a letter dated December 4, 2006. The letter strongly challenges the IESO's jurisdiction to make changes to transmission planning standards:

> The IESO does not have the purview over transmission planning matters in Ontario. The Electricity Act 1998 does not enshrine that, among the "Objects of the IESO", the IESO has the authority to establish and enforce standards and criteria relating to transmission planning. Also, neither the Market Rules nor the Act, provides the IESO with the authority to carry out long term planning. Thus, the IESO does not have the jurisdiction to establish transmission planning standards that would assign obligations on other entities. Indeed, if IESO were to do so, it would further complicate the electricity industry in Ontario.[59]

In a letter dated February 13, 2007, Hydro One restates its concerns about the "serious issues regarding the IESO's purview and standards development process" but offers technical comments that propose specific wording changes to section 3.4.1 dealing with "Special Protection Systems." Hydro One's letter proposed changes that would limit reliance upon an NPCC Type I

[55] Vol. 14, page 75:5-12
[56] Argument at p.52
[57] Hydro One Argument-in-Chief, at p.53
[58] Exhibit K 14.2, Tab 2, p.1
[59] Exhibit K 14.2, Tab 4, p.1

SPS for NPCC A-2 design criteria contingencies with all transmission elements in service to transaction periods while new transmission reinforcements are being brought into service.[60] Mr. Russell testified that this change represents a significant stiffening of criteria from what is required under NERC and NPCC and what was previously required under the IESO criteria.[61]

This language proposed by Hydro One was ultimately adopted by the IESO and forms part of the ORTAC that Hydro One now relies on for its assertion that long term reliance on generation rejection does not meet reliability criteria. It must be noted that Hydro One proposed these changes on February 13, 2007, just before submitting the current application for its proposed line.

Notwithstanding questions about the IESO's authority to make the changes contained in the most recent ORTAC, or Hydro One's role in authoring those changes, it is clear that the provisions cited by Hydro One do not preclude the interim use of generation rejection as part of a series capacitor alternative.

In the series capacitor alternative identified by Mr. Russell and Messrs. Fagan and Lanzalotta, generation rejection will continue to be used only on an interim basis. As explained by Mr. Russell, a series capacitor alternative would immediately reduce reliance on arming for generation rejection by limiting the number and amount of generation required to be armed for rejection. As actual transmission requirements from the Bruce area become more certain, further planning steps can be taken. If generation from the area is reduced, there will be a corresponding reduction in the amount of generation that needs to be armed for rejection. If generation from the area increases, further transmission upgrades can be implemented, again, reducing the need for arming generation for rejection. In either case, generation rejection is used on an interim basis.

This situation is analogous to what Hydro One has done, and the IESO has approved, for the Hanmer-Essa 500 kV line. In that situation, the IESO recommended on May 15, 2007 use of series capacitors coupled with more than 500 MW or generation rejection.[62] These upgrades were proposed in order to import more renewable hydro and wind energy into the GTA from Northern Ontario.

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[60] Same, p.2
[61] Vol. 14, p. 57:24 – 58:12.
[62] See the Interconnection Assessment for Proposed Installation of: Series Capacitors in the 500kV Circuits X 503E & X504E at Nobel TS, etc., Exhibit E, Tab 3, Schedule 1.

Conclusion on Series Capacitors and Reliability Criteria

Hydro One has attempted to leave the Board with the impression that use of generation rejection cannot be used in compliance with reliability criteria, and that this precludes any alternative which relies on generation rejection. In so doing, not only does Hydro One misconstrue the use and application of a series capacitors suggested by intervenor experts, it must deny the evidence of its own witnesses that reliability criteria must be approached in a balanced way.

Hydro One has embraced positions with respect to extreme contingencies that are diametrically opposed to one another. Hydro One acknowledges that events affecting a transmission system that are classified as extreme contingencies can reliably be incorporated into a system and can be managed. In fact, Hydro One has done just this with respect to the new line by planning to site that additional line within an already congested existing corridor. A contingency involving the loss of all lines in a single corridor is regarded as an extreme contingency under NPCC criteria.

Failure of an SPS is also regarded as an extreme contingency under NPCC criteria. Yet Hydro One's position in this proceeding (and in its August 2007 amendment of the IESO criteria) is that the possibility of the failure of an SPS cannot be tolerated. In other words, Hydro One's position is that arming for generation rejection cannot be tolerated over the long term because generation rejection involves taking on the infinitesimally small risk that an SPS may fail. Thus, Hydro One's position and its support of the IESO's August 2007 amendment of ORTAC are based on the need to lessen the possibility of an extreme contingency.

There is no way to reconcile Hydro One's endorsement of the new line on an existing corridor with its opposition to the use of generation rejection because of its concern with a failure of the SPS which would govern such generation rejection. When confronted on this issues, Mr. Falvo admitted that system planning requires a balance between competing policies, including a balance between reliability criteria and land-use policies[63]. Mr. Sabiston admits that reliability is always balanced with cost effectiveness, and that Hydro One would never spend more money than it needed to meet just meet applicable criteria. In all these instances, Hydro One and IESO witnesses adopt a sensible approach to system planning, and a sober attitude to reliability criteria.

[63] Transcript, Vol.5 May 7, p.144 24-

V. CONSULTATION WITH ABORIGINAL PEOPLES

A. The Consultation Issues raised by the parties

Hydro One has made several different submissions respecting consultation:

(1) the Board would only have jurisdiction to consider consultation issues that fall within the ambit of its jurisdiction to consider price, quality and reliability of electricity service pursuant to sections 92 and 96;

(2) the environmental assessment process is the appropriate forum to consider all or most of the Crown's consultation obligations, because it deals with socio-economic issues and ends with a Ministerial decision; and

(3) the Board should conclude that Hydro One's consultation effort respecting the Project, as part of the Crown's overall effort, has been robust.

Board Staff have made their own submissions:

(1) where the Board is the only statutory decision maker for a project, the Board would bear the Crown's duty to consult, or at least to ensure that adequate consultation has taken place;

(2) in this case consultation issues relating to environmental and archaeological matters should be addressed in the EA process;

(3) the Board should only consider consultation issues in this case if they are satisfied that some manner of (potentially affected) Aboriginal or treaty right relates directly to price, quality or reliability; and

(4) based on the evidence, the Board could only conclude that consultation respecting the project is underway, ongoing and incomplete.

SON respectfully disagrees with those submissions, and submits that:

(1) the Board should implement the commitment in its own Aboriginal Consultation Policy - to ensure that proper consultation with Aboriginal people has taken place - because the project is subject to Board approval and may have an adverse effect on SON's Aboriginal or treaty rights;

(2) it would not be appropriate for the Board to limit its consideration of consultation issues to matters within the scope of its own review of the project under sections 92 and 96;

(3) the environmental assessment process required for the project may have a useful role to play in the necessary consultations respecting the project – particularly in considering some types of impacts or related accommodation measures that would flow directly from the construction of the proposed new line – but the EA is an administrative and political process, and therefore not an appropriate mechanism for making an independent determination whether the Crown's consultation obligation has been fulfilled;

(4) the Board should conclude that appropriate consultations have not really begun in this case, because no Crown actors have acknowledged the full nature and purpose of the project – which is proposed as a way to facilitate the refurbishment of Bruce B and/or the construction of Bruce C, as well as a very substantial increase in wind generation from the Bruce area – nor are any consultations underway or accommodations being considered, on the basis of SON's stated concerns respecting the strategic-level impacts those future generation aspects of this project would have on their Aboriginal and treaty rights throughout their territory; and

(5) the absence of appropriate consultations to this point provides an additional reason why the Board should reject this application, because it should not be assumed that the Project would not be changed as a result of a meaningful consultation process.

B. The Board Should Apply its Own Policy in this Case

The Board should reject the invitations from Hydro-One and Board staff to abandon or change its own Aboriginal Consultation Policy in this case. When the Board posted the draft policy in June of 2007, it invited comments. If the Board wishes to now reconsider that policy, it should do so through

the public process it began a year ago. Other parties would certainly want to participate in such a reconsideration.

It would be wrong for this Panel of the Board to depart from that policy now, on the basis of legal arguments specific to this application. The hearing was conducted on the basis of the Issues List, which reflects the policy. The Parties all participated in the hearing on the basis of the policy and the Issues List.

C. The Basic Concept in the Board's Policy is Sound

The fundamental concept in the policy is the acceptance of the Board's duty to ensure that proper consultation with Aboriginal peoples is conducted, where a project that is subject to Board approval may have an adverse effect on an existing or asserted Aboriginal or treaty right. It is a sound concept, and should be applied.

The policy should not be interpreted to mean that the Board itself bears the Crown's responsibility to engage in consultations or to implement accommodations where necessary. The Board is a statutory tribunal with specific quasi-judicial functions. Although the Board performs those functions as an agent of the Crown, it is not the agent of the Crown in a general sense. The Board does not have the requisite mandates or links to government Ministries to itself carry out the Crown's consultation duties. Nor is the Board required to exercise its own functions on the basis of the "honour of the Crown" principle.[64]

On the other hand, as a statutory tribunal, the Board must exercise its decision-making functions in accordance with the dictates of the Constitution, including s. 35(1) of the *Constitution Act, 1982.*[65] The Board is therefore required to respect and honour, not ignore, the duty to consult and accommodate.

[64] *Quebec (Attorney General) v Canada (National Energy Board),* [1994] 1 SCR 159 at 183
[65] *Quebec (Attorney General) v Canada (National Energy Board),*supra at 185

Moreover the Board's s. 19(1) power to decide all issues of law and of fact arising in matters within its jurisdiction certainly includes a power to decide whether the Crown has discharged its consultation and accommodation obligations in respect of an application it is considering.[66]

Therefore it is appropriate for the Board to consider whether the Crown's constitutional obligations to consult with Aboriginal peoples have been discharged with respect to an application before the Board. If the duty has been fulfilled, it need not be a factor in the Board's decision. If it has not been fulfilled, then the Board should consider how that should affect its decision on a case-by-case basis.

It is recognized that this additional function is not specified in the Board's statutory mandates. But it is appropriate for the Board to assume this additional function as a matter of its own policy, for three reasons. First, it is an acknowledgement of the legal force of the duty; if the Board refuses this function it will effectively be denying the existence of the duty in respect of projects for which it has decision-making authority. Second, if the Board chooses to ignore this issue it may result in some of its decisions being set aside as a result of appeals based on the Crown's breach of the duty; that would undermine the effectiveness of the Board's decisions. Third, by exercising its policy the Board will encourage Crown actors to fulfil their consultation obligations, since the Board's decision-making authority and hearing process could normally provide an incentive and timeline for compliance with the duty.

It is recognized that the Board is not the author of the larger policy problems respecting the implementation of the duty to consult and accommodate. It is the Crown in right of Ontario that has effectively orphaned the duty, having failed to develop either administrative or legislative processes for its implementation, and having appointed no champion for the duty within government. On the other hand, by continuing to implement the existing policy on a case-by-case basis, the Board would be a positive force for correcting that problem.

D. The Nature of the Duty to Consult and Accommodate

In order to make a determination whether the Crown's consultation duty has been satisfied in a particular case, the Board will need to have a general understanding of the nature and scope of the duty. The following general remarks are offered to assist that understanding.

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[66] *Paul v British Columbia (Forest Appeals Commission),* [2003] 4 CNLR 25 at [35] and [45-47]

The framework of the duty to consult was developed by the Supreme Court of Canada in its *Haida Nation*[67] and *Taku River Tlingit*[68] decisions in 2004, and the *Mikisew Cree*[69] decision in 2005. In contrast to the *Sparrow*[70] line of cases, the new duty is based on the honour of the Crown, and does not depend on proof of an existing s. 35 right and its infringement. Instead, the duty arises when the Crown has real or constructive knowledge of the potential existence of an Aboriginal or Treaty right or interest, and contemplates conduct that might adversely affect it. The duty in such situations requires appropriate consultation with the affected Aboriginal people, with a view to substantially addressing their concerns by the adoption of appropriate accommodation measures. This duty has wide application, and is a significant addition to the modern law of aboriginal and treaty rights.

This new duty is constitutional, in two senses. First, it flows from section 35 of the *Constitution Act, 1982* and the corollary principle that the Crown must act honourably in its dealings with Aboriginal peoples. Second, it is "a limitation on the powers of government, not to be found in any statute, that has a constitutional character because it helps define the relationship between government and the governed."[71]

In its first decisions respecting the duty, the Supreme Court of Canada explained its purposes: This is said in the *Haida* decision:

> **[**32] The jurisprudence of this Court supports the view that the duty to consult and accommodate is part of a process of fair dealing and reconciliation that begins with the assertion of sovereignty and continues beyond formal claims resolution. Reconciliation is not a final legal remedy in the usual sense. Rather, it is a process flowing from rights guaranteed by s. 35(1) of the *Constitution Act, 1982*. This process of reconciliation flows from the Crown's duty of honourable dealing toward Aboriginal peoples, which arises in turn from the Crown's assertion of sovereignty over an Aboriginal people and de facto control of land and resources that were formerly in the control of that people...

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[67] *Haida Nation v British Columbia (Minister of Forests)*, [2004] 3 S.C.R. 511
[68] *Taku River Tlingit First Nation v British Columbia (Project Assessment Director)*, [2004] 3 S.C.R. 550
[69] *Mikisew Cree First Nation v Canada (Minister of Canadian Heritage,* [2005] 3 S.C.R. 388
[70] *R v Sparrow* [1990] 1 S.C.R. 1075
[71] *Haida Nation v British Columbia (Minister of Forests)*, supra at [17, 20, 32]; *Mikisew Cree First Nation v Canada (Minister of Canadian Heritage,* supra at [3, 51, 56-8.]; *Chief Joe Hall v Canada*, 2007 BCCA 133 at [48]; P. Hogg, *Constitutional Law of Canada*, 5th ed, I-1

In the *Mikisew Cree* case a year later, the Court had to decide whether this new duty also applies to protect Treaty rights and interests. Governments argued that it should not, that no further accommodation measures were required because the goal of reconciliation was achieved when the Crown had entered into Treaty 8 in 1899. The Court rejected the argument:

> **[**54] … Treaty making is an important stage in the long process of reconciliation, but it is only a stage. What occurred at Fort Chipewyan in 1899 was not the complete discharge of the duty arising from the honour of the Crown, but a rededication of it.
>
> [56] In summary, the 1899 negotiations were the first step in a long journey that is unlikely to end any time soon…

The Court based this decision to apply the new duty to treaty rights on a purposive analysis:

> [1] The fundamental objective of the modern law of aboriginal and treaty rights is the reconciliation of aboriginal peoples and non-aboriginal peoples and their respective claims, interests and ambitions. The management of these relationships takes place in the shadow of a long history of grievances and misunderstanding. The multitude of smaller grievances created by the indifference of some government officials to aboriginal people's concerns, and the lack of respect inherent in that indifference has been as destructive of the process of reconciliation as some of the larger and more explosive controversies. And so it is in this case.
>
> [3] … the principle of consultation in advance of interference with existing treaty rights is a matter of broad general importance to the relations between aboriginal and non-aboriginal peoples. It goes to the heart of the relationship and concerns not only the Mikisew but other First Nations and non-aboriginal governments as well.

The duty is not fulfilled just by talking. Consultation pursuant to the honour of the Crown principle is not satisfied by giving First Nations an opportunity to blow off steam before government officials proceed to do what they had intended to do all along.[72]

The duty is not merely procedural, but requires the Crown to deal with the relevant substantive issues in a meaningful way, since it entails a duty to accommodate when appropriate. As Binnie J. said, consultation is to be conducted "with the intention of substantially addressing the concerns of the Aboriginal peoples whose lands are at issue," and "the controlling question in all situations is what is required to maintain the honour of the Crown and to effect reconciliation between the Crown and Aboriginal peoples with respect to the interests at stake…," [73] He also said that consultation must "ensure that [the Aboriginal people's] representations are seriously considered and, where possible, demonstrably integrated into the proposed plan of action."[74]

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[72] (*Mikisew Cree,* supra, at [54]
[73] (*Mikisew Cree,* supra, at [61] and [62])
[74] *Mikisew Cree,*supra, at [64]

Fulfilling the duty will often require negotiations between government officials and the affected Aboriginal people. The Supreme Court of Canada held that the concerns of the Taku River Tlingit about the effects on their rights of a proposed 160 km industrial highway through their territory – to facilitate Redfern Resources reopening a mine that had previously been accessed by river barges - would require such accommodation measures as joint Tlingit-government land use planning and the development of a joint management authority for the road.[75] When the B.C. Court of Appeal concluded that the Crown breached its consultation duty when it transferred the UBC Golf Course to the University without meaningful consultations with the Musqueam First Nation, it suspended the transaction for two years, in order "to afford LWBC [Lands and Waters B.C.] and the Appellant [the Musqueam First Nation] proper opportunity for consultation **with a view to reaching some *modus operandi* on appropriate accommodation**."[76] (emphasis added)

E. The Board should not defer to the Environmental Assessment Process

It has been argued that the Board's review of consultation matters should be restricted to the duty to consult on matters that relate to price, quality and reliability of electricity service, which are the factors to be considered by the Board on a section 92 application. SON submits this proposal should be rejected for several reasons.

First, there is no legal justification for such a narrow approach. When an administrative tribunal has authority to decide incidental legal and constitutional issues - that arise in the course of considering a matter within jurisdiction - the scope of the legal or constitutional issues that can be decided is not limited by the scope of the tribunal's decision-making mandate or remedial powers.[77]

Second, this proposal to narrowly focus the Board's determination respecting consultation reflects the corresponding proposal that the Board defer to the EA process for the decision whether consultation has been completed respecting concerns about environmental or archaeological issues. This would not be appropriate for several reasons.

Although the environmental assessment process required for the project may have a useful role to play in the necessary consultations respecting the project – particularly in considering some types of

[75] *Taku River Tlingit First Nation v British Columbia (Project Assessment Director)*, supra, at [46]
[76] *Musqueam Indian Band v British Columbia (Minister of Sustainable Resource Management),* 2005 CanLII BCCA 128 at [101]
[77] *Paul v British Columbia (Forest Appeals Commission),* [2003] 4 CNLR 25 at [40]

impacts or related accommodation measures that would flow directly from the construction of the proposed new line – the EA is an administrative and political process, and therefore not an appropriate mechanism for making an independent determination whether the Crown's consultation obligation has been fulfilled.

EA 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.

It has also been suggested that the Board should **assume** that the Minister of the Environment would not certify the project if the duty had not been fulfilled, since the duty has been referenced in the Terms of Reference for the EA. With respect, this is one more matter that the Board is improperly being asked to accept on faith in this proceeding .

Third, the suggestion requires an unworkable fragmentation of the issues that arise for consultation in this case. It is certainly true that there are unresolved issues about environmental and archaeological matters associated with the construction of the proposed line. But it is also true that SON has consistently raised much broader strategic level concerns about the proposed new line – because it is intended to promote and facilitate future nuclear and wind projects in the territory. For consultation purposes, those future energy projects and the proposed new line are inherently connected, through the need case.

Those strategic-level issues are themselves properly before the Board on this section 92 application, as part of the consideration of the need and justification issues. They are matters that involve the Ministry of Energy, Hydro One and OPA. There is no reason to think that such issues could be the subject of productive discussions with the Ministry of Environment. Moreover, in their meetings with Hydro and OPA officials, SON repeatedly explained that they seek a comprehensive and integrated consultation process, because the energy-related issues that have a bearing on their rights cannot effectively be addressed on an isolated basis.

F. Have the Crown's Consultation Obligations to SON been satisfied?

There is no dispute that the Crown must consult with SON respecting the Project. The evidence about the conduct of the parties shows that this is common ground. Hydro has convened a number of meetings with SON for that purpose. Hydro and SON have negotiated a without prejudice protocol agreement respecting, *inter alia,* capacity funding for SON to retain experts, engage in discussions with Hydro and consultations with the Crown, and participate in regulatory processes respecting the Project. The Ministry of Energy has begun discussions in order to plan for consultations with SON respecting the project.

No witness has said that such consultation was not required. On the contrary, Hydro officials were eager to explain that the process has begun and is continuing. No party has argued that consultation with SON respecting the Project is not required.

This is not surprising. The OPA's and SON's maps show the proposed new line starting at the Bruce nuclear complex at Douglas Point (on Lake Huron, within SON territory) and running right through SON territory. And the IPSP materials on the future wind energy projects that are so critical to the needs case show that the proposals for those projects extend throughout SON territory. They also show the requirement for enabling lines north of Owen Sound up the Bruce Peninsula, and that is admitted to be extremely controversial because of its likely impacts on SON rights and territorial interests.

In their arguments, Hydro and Board staff both say that the necessary consultation process with SON has been begun but has not been completed. Both acknowledge that the duty has not been satisfied. Board staff submit that is all that can be said on the evidence. Hydro submits the Board should conclude that Hydro's efforts, as part of the Crown's overall effort, has been robust.

SON submits that the consultations required by this Application have not really begun, and should certainly not be characterized as robust. That is not because of a complete absence of time spent talking. It is because there is no consensus on the range of issues that require serious discussion, no process for reaching such a consensus and no mechanism in place for consulting on potential impacts and seeking agreements on accommodation measures.

In the January 30, 2007 meeting, Hydro acknowledged its need to consult on projects that affect treaty and traditional lands, and said that it wanted to understand SON's concerns about impacts and begin a dialogue. But the dialogue has not been very effective to this point.

From that first meeting and since, SON has consistently explained that their concerns included, but were not limited to, the direct impacts from construction of the line itself. They asked whether the line would serve new nuclear power and more nuclear waste in the territory. They raised questions and expressed concern about the amount of increased wind generation planned for the territory. They expressed concern about the prominent role their territory plays in energy production for the province, and asked what benefits their people experience from that. They said that all of the energy projects are necessarily linked, and they asked how the Crown would engage SON as key players in decisions affecting their territory, and what was the strategy for mitigating overall effects.

In the meeting in November of 2007 the same issues were raised by SON, including the negative impact of the over-reliance of the province on their territory for energy purposes, the resulting negative impact on SON's vision of their future and development within their treaty and traditional lands, and their concern about cumulative effects and the possibility that the project would lead to more future generation projects in their territory.

The evidence shows that SON consistently raised these strategic level issues that they considered were linked to the project. That made good sense. Hydro admitted that that the project was intended to support future wind projects in the territory. It makes obvious good sense for SON to have concerns about whether they would be able to participate meaningfully in the planning for such developments, through mechanisms that would be effective to protect their culture and treaty rights and their vision of their future in the territory.

SON also asked about the linkage between the proposed new line and further development of nuclear power in their territory. It also makes obvious good sense for them to have concerns about the health and safety aspects of increasing the number and/or the life of nuclear reactors in their territory and on the edge of Lake Huron – and of the robustness and independence of the regulatory regime for nuclear installations - in order to protect their security about their future generations and their way of life based in the territory.[78]

But Hydro was never responsive to those concerns. Hydro said repeatedly that its mandate was only to consult on the direct effects of the line itself, and that it was the OPA that had responsibility for future energy planning. And when SON stated they had not given their support to new nuclear and

[78] These strategic level planning and consultation issues were more fully discussed in SON's submission to the Board's IPSP panel when the Issues List was being considered – see transcript for January 14, 2008.

more waste in their territory, and asked about the linkage between the proposed line and increased nuclear generation, Hydro did not tell SON what they have told the Board in this hearing – that the line was premised on and intended to support refurbishment of Bruce B and/or Bruce C new build – but said instead that the proposed line was only to accommodate the return to service of the existing Bruce units and existing and future wind potential.[79]

Thus there is a fundamental disconnect between the nature of the project that has been the subject of consultation discussions to date, and the project as it has been presented to the Board. Here before the Board, the project is critically tied to future nuclear and wind, because that is the basis of the need case. But in the only discussions that could be considered part of consultations to date, the project is only considered in isolation, and there is no acknowledgement of its connection to those future nuclear and wind plans and the related and strategic level issues that they raise.

It is submitted that meaningful consultations and accommodations respecting the proposed project must address the strategic level planning aspects of the proposed line, because those aspects are of great significance to the Treaty rights and future of the SON in their territory. The Supreme Court of Canada had occasion to consider the difference between strategic and operational decisions in *Haida Nation,* supra, because the First Nation said they should have been consulted respecting the transfer of the Tree Farm Licence at issue, and the British Columbia government argued they could be consulted on operational decisions respecting specific cutting permits, etc. This is what the Court said:

> **[**76] I conclude that the Province has a duty to consult and perhaps accommodate on T.F.L. decisions. **The T.F.L. decision reflects the strategic planning for utilization of the resource. Decisions made during strategic planning may have potentially serious impacts on Aboriginal right and title**. The holder of T.F.L. 39 must submit a management plan to the Chief Forester every five years, to include inventories of the licence area's resources, a timber supply analysis, and a "20-Year Plan" setting out a hypothetical sequence of cutblocks. The inventories and the timber supply analysis form the basis of the determination of the allowable annual cut ("A.A.C.") for the licence. The licensee thus develops the technical information based upon which the A.A.C. is calculated. Consultation at the operational level thus has little effect on the quantity of the annual allowable cut, which in turn determines cutting permit terms. **If consultation is to be meaningful, it must take place at the stage of granting or renewing Tree Farm Licences.**
>
> **[**77] The last issue is whether the Crown's duty went beyond consultation on T.F.L. decisions, to accommodation. We cannot know, on the facts here, whether consultation would have led to a need for accommodation. **However, the strength of the case for both the Haida title and the Haida right to harvest red cedar, coupled with the serious impact of incremental strategic decisions on those interests, suggest that**

[79] See Transcript of May 12, page 108, line 21 to page 109, line 13.

> **the honour of the Crown may well require significant accommodation to preserve the Haida interest pending resolution of their claims.** (emphasis added)

For the above reasons it is respectfully submitted that meaningful consultations with SON have not yet begun respecting this project. Nor can anyone say with confidence that those will be conducted, or how it will be done.

It follows that this failure represents an additional reason why the Board should reject the Application at this time. The strategic level impacts of the proposed project must be included in the matters requiring consultations. That will need to be done in the context of the IPSP review. It should not be assumed that such consultations would not affect the substance of decisions about future energy projects in the Bruce area or the need for transmission upgrades.

Consultation and accommodation negotiations have had such an effect in other cases. As a result of the Supreme Court of Canada's decision in the *Haida Nation* case, the Haida were able to conclude a comprehensive forestry agreement that profoundly changes the future of forestry activities in Haida Gwai. As a result of the Supreme Court of Canada's decision in the *Taku River Tlingit* case, the First Nation and British Columbia concluded an agreement for joint planning of territorial land use and shared decision-making, and Redfern decided to access its mine by hovercraft-style barges instead of its proposed road. As a result of the BC Court of Appeal decision in the Musqueam case, a negotiated agreement was concluded to transfer the golf course land to the First Nation instead of the University.

When strategic level issues need to be the subject of consultations and accommodations because of the impacts that a project may have on Aboriginal or Treaty rights – as in this case – it is not appropriate for Crown agents to conclude the authorization of such projects before consultation and accommodation discussions have had an opportunity to pursue an appropriate *modus operandi,* in order to ensure that the project would contribute to reconciliation and the honour of the Crown.

In the same way that the Board should reject the application so that the complex planning issues that underlie Hydro's proposal can be properly considered in the IPSP process, this is a case in which the Board should not approve the application until it has reason to be confident that consultation obligations have been substantially satisfied and the results of those have been reflected in the application.

VI. CONCLUSION

It is respectfully submitted that the Board should:

- Deny Hydro One's Application;
- Recommend to Hydro One that it undertake measures it considers most appropriate to address the immediate and actual transmission needs from the Bruce area; and
- Ensure that the strategic level planning issues raised by this Application are fully considered in the IPSP review.

ALL OF WHICH IS RESPECTFULLY SUBMITTED

"Arthur Pape"
Counsel for Saugeen Ojibway Nations

"Alex Monem"
Counsel for Saugeen Ojibway Nations

Dated July 4th, 2008