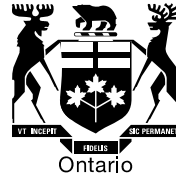


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BY EMAIL

July 29, 2008

Miriam Heinz
Regulatory Coordinator
Ontario Power Authority
120 Adelaide St W., Suite 1600
Toronto ON M5H 1T1

Dear Ms Heinz:

**Re: Ontario Power Authority
Application for Review and Approval of the OPA Integrated Power System
Plan and Procurement Processes
Decision and Order on Motions
Board File No. EB-2007-0707**

The Board has today issued its Decision and Order on Motions in the above matter.

Yours truly,

Original signed by

Kirsten Walli
Board Secretary

cc: Intervenor of Record



EB-2007-0707

IN THE MATTER OF sections 25.30 and 25.31 of the
Electricity Act, 1998;

AND IN THE MATTER OF an application by the Ontario
Power Authority for review and approval of the Integrated
Power System Plan and proposed procurement processes;

AND IN THE MATTER OF Notices of Motion brought by
various parties requiring further and better answers to
interrogatories from the Ontario Power Authority.

BEFORE: Pamela Nowina
Presiding Member and Vice-Chair

Ken Quesnelle
Member

David Balsillie
Member

**DECISION AND ORDER ON MOTIONS RELATED TO INTERROGATORY
RESPONSES OF THE ONTARIO POWER AUTHORITY**

BACKGROUND

The Ontario Power Authority (the "OPA") filed an application with the Ontario Energy Board dated August 29, 2007 under the *Electricity Act, 1998*, S.O. 1998, c.15, Sched. A. The applicant is seeking an order of the Board approving the Integrated Power System Plan (the "IPSP" or the "Plan") and certain procurement processes. The Board has assigned file number EB-2007-0707 to this application.

Part 1 of this proceeding was completed with the issuance by the Board on March 26, 2008, of an Issues Decision establishing an Issues List for the proceeding.

On April 8, 2008, the Board issued Procedural Order No. 3, setting out procedural steps for its review of the IPSP and the procurement processes. These steps included an opportunity for Board staff and intervenors to request further information from the OPA by way of written interrogatories. The OPA filed its responses to the majority of interrogatories on June 18, 2008.

On May 16, 2008, the OPA filed additional evidence related to Aboriginal consultation. On May 23, 2008, the Board issued Procedural No. 4 which provided an opportunity for interrogatories on the additional evidence. The OPA filed its responses on June 25, 2008.

In its Decision dated June 25, 2008, the Board granted, in part, two motions that sought an extension to certain filing in Procedural Order No. 3. Procedural Order No. 6 issued on the same date, contained the revised dates and made provision for the hearing of any motions seeking further and better answers to interrogatories from the OPA .

MOTIONS RECEIVED

Notices of Motion seeking further and better interrogatory answers from OPA were received from the following parties:

The National Chief's Office on behalf of the Assembly of First Nations ("NCO")
Bullfrog Power Inc.
City of Thunder Bay, Northwestern Ontario Municipal Association, and Town of Atikokan ("NOMA")
Council of Canadians

Green Energy Coalition, Pembina Foundation and Ontario Sustainable Energy Association ("GEC")
Xylene Power Ltd. ("Xylene")

A notice of motion was also received from Energy Probe. OPA objected to this motion on the grounds of late filing. The Board declined to hear the motion due to it being filed later than the date required in Procedural Order #6.

By letter dated July 11, 2008, the Council of Canadians advised the Board that it had come to an agreement with the OPA and withdrew its motion.

By letter dated July 14, 2008, Bullfrog Power Inc. withdrew its motion.

The remaining four motions were heard on July 15 and 16, 2008. The parties to the proceeding were represented as follows:

City of Toronto	Ian Mondrow Elisabeth DeMarco
Electricity Distributors Association	Chris Buckler
GEC	David Poch
Ontario Ministry of Energy And Infrastructure	Suzanne Coultres
NCO	Paul Manning
Nishnawbe Aski Nation	Doug Cunningham
NOMA	Nick Melchiorre
Saugeen Ojibway Nations	Alex Monem
Xylene	Dr. Charles Rhodes
OPA	George Vegh Kristyn Annis
Board Staff	Jennifer Lea David Crocker

In the Board's Issues Decision dated March 26, 2008 it stated:

“...the Issues List has two purposes: 1) it defines the scope of the proceeding; and 2) it articulates the questions which the Board must address in reaching a decision on the application. The Board does not believe it is appropriate to define the Issues List in complete detail. For many of the issues, the Board expects that sub-issues will arise during the course of the proceeding which will need to be addressed in argument and in the final decision. It is not possible to identify all of these detailed issues now so early in the process.”

In reviewing the motions the Board has considered the requests for better and further interrogatory (“IR”) answers in relation to the scope of the issues as defined in the Issues List and whether such answers would assist the Board in reaching a decision on the application.

This Decision and Order addresses the motions filed by NCO, GEC, NOMA, and Xylene.

FINDINGS

Introduction

Collectively, there were approximately 160 interrogatories in question as a result of the Motions of NCO, GEC, NOMA and Xylene Power. Of these more than 60 were broad requests for information.

The paramount consideration for the Board is to have available to it the information it requires to be able, at the end of the hearing process, to make the necessary well-reasoned decision on the IPSP. At the same time, the Board wishes to ensure that the hearing is completed within a reasonable timeframe so that the results of the process are meaningful and useful. In this light, the Board in this decision has not ordered the wholesale production of documents that are not defined with sufficient precision by the party making the request. In some cases, requests for “all background information” might lead to the production of thousands, even tens of thousands, of pages of documents. For example, the results of internet searches performed by the OPA, given its planning function, could be vast and might be captured by such requests.

If it can be demonstrated that such information could have significant probative value, the Board might well order such production. However, the Board sees little value in ordering the production of voluminous materials where it is not clear what, if any, value this will add to the proceeding. Even in a proceeding as extensive and lengthy as the IPSP, there is a limit to the amount of material that the Board can effectively review. The Board has on that basis denied some requests for additional information, and in other cases, refined or focused the requests and ordered the OPA to respond to these refined requests.

The National Chief's Office on behalf of the Assembly of First Nations

The NCO brought a motion for further and better answers to its written interrogatories from the OPA. The NCO asked four questions with respect to specific interrogatories it posed. In addition, at the outset of his submissions, counsel for the NCO reiterated certain issues first raised in the issues proceeding with respect to whether the IPSP and the procurement process provide First Nations with fair, open, non-discriminatory access to and full participation in that procurement process.

Mr. Vegh for the OPA argued, with respect to this position, that removing systemic discrimination and barriers against Aboriginal peoples is not the responsibility of the OPA or the OEB.

The Board finds that this question can and should be raised during the hearing proper. It need not be dealt with at this preliminary stage of the proceedings.

With respect to the specific issues raised by the NCO, the Board finds as follows:

Question 1

In its Motion and oral submission, the NCO argued that the OPA should obtain from the Ministry of Energy ("MOE") substantive answers to all NCO interrogatories submitted to the OPA as requested by the NCO's letter to the OPA dated June 9, 2008 and to further and better answers requested by this Notice of Motion.

Mr. Vegh submitted that all of the information in its possession related to the NCO's interrogatories had been filed with the Board and that there was nothing further it could provide at this time. He stated that OPA staff had been in touch with the MOE regarding

the NCO's requests for further information. The result of those discussions was given in a letter from the OPA dated June 27, 2008, filed with the Board, which stated that, "the Ministry has reviewed the OPA's interrogatory responses and has advised that it has no further comments on the responses provided by the OPA."

The Board accepts the submission of counsel for the OPA that no further information is available to the OPA. The Board expects that the OPA will continue to be in contact with the MOE as this process moves forward and will bring to the hearing any new information from the MOE with respect to this issue if such information should become available. In addition, the Board notes that the OPA can be cross-examined on this issue by the parties.

Question 2 – IRs No. 3 and No. 4

IRs No. 3 and No. 4 asked for the OPA's view of its legal duty to engage, consult and accommodate in relation to the IPSP and Procurement Process, and the OPA's view of its role in relation to the Crown's duty to consult. Through its Motion, the NCO asked the OPA what arrangements or agreements, formal or otherwise, exist between the Crown and the OPA, regarding the allocation of responsibilities, procedural or otherwise, to consult with and accommodate First Nations in relation to the IPSP.

The Board has considered the written and oral responses of the OPA to this question. The Board accepts the position of the OPA that the question raised in the Motion is different than that presented in the original NCO interrogatories. In any event, the Board finds that the responses of the OPA are adequate. Once again, the Board notes that the parties will have an opportunity to cross-examine the OPA on this issue at the hearing.

Question 3 – IRs No. 5, and 7(b),(c) and (d)

Mr. Manning asked how issues requiring accommodation that arise during the proceeding or otherwise during the life of the IPSP will be incorporated into the IPSP.

Mr. Vegh, once again, submitted that this question is really a new interrogatory and the Board agrees. Mr. Vegh submitted, nevertheless, that all information on accommodations that are part of the IPSP has been provided and there is nothing that the OPA can add. Mr. Vegh also notes that long-term power system planning will

continue and that an ongoing dialogue with First Nations will also continue. He stated that it was the intention of the OPA to develop a process through 2008 and into 2009 for future engagement with First Nations on this long-term power planning.

In paragraph 14 of the written motion, the NCO indicates that a delay in receiving the information requested by way of the motion would be prejudicial to the NCO. Counsel was asked during oral submissions to indicate how the NCO would be prejudiced by delay.

Mr. Manning responded that insofar as the OPA responses fall short of the information the NCO would like to have they are faced with having to consider developing information on their own.

The NCO submitted that they have not been able to ascertain the mandate of the OPA with regard to consultation and accommodation and whether or not its obligations are limited at this stage. Therefore they do not have a clear idea as to what remains to be done in terms of the production of evidence.

The Board was not persuaded by the response of Mr. Manning that it should order a further response to interrogatories at this time. The Board has found that the OPA has responded to the interrogatories with the information presently available to it. The NCO should conduct itself based on the record as it stands now. The issues raised by this question will be a continuing subject of the hearing.

The Board notes that it remains the burden of the applicant to satisfy the Board that whatever consultation or accommodation might be required has been made. The fact that the Board has not ordered further and better responses to interrogatories with respect to this matter at this time, does not relieve the applicant of this burden.

Question 4 – IRs 12 and 13

Mr. Manning in his oral and written submissions, reiterated interrogatories 12, 13 and 15. These requested identification of all projects in the IPSP related to First Nations' interests. In his oral submissions, however, Mr. Manning narrowed his original request so that it related to First Nations Reserve Land; other land owned by First Nations, whether through corporations or otherwise; land over which First Nations' rights are established; and other land over which First Nations' rights are asserted.

Mr. Vegh submitted that providing such information would be extremely difficult, time consuming and be of limited probative value.

The Board finds that the provision of some additional information in response to this request is reasonable and would be helpful to the Board. The Board further narrows the information required and orders the OPA to provide an answer which identifies all projects within the IPSP that affect or may affect First Nations Reserve and Treaty Lands. This listing should include any projects on which work is done or money committed or for which development is expected to occur during the following three time frames:

- 2007 and 2010
- 2010 and 2013
- beyond 2013.

The listing should be divided by these time frames.

Green Energy Coalition, Pembina Foundation and Ontario Sustainable Energy Association

GEC requested a large amount of additional background information as well as copies of the models and the data inputs and outputs for those models that the OPA had used in developing its Plan. GEC broke down its requests into four groups:

- Background information and studies
- Models, spreadsheets and workpapers
- Data inputs and outputs
- Other non-responsive interrogatories

GEC gave a number of grounds for its requests. GEC stated that the interrogatory responses were necessary to allow their experts to:

- Understand the specific assumptions where the pre-filed evidence does not break out details;
- Understand what information the OPA has decided not to rely upon;
- Understand the implicit decision making rules embedded in the various models;
- Test whether the OPA's models in fact do what they are described as doing;

- Assess whether logic, data or computational errors have occurred;
- Understand tradeoffs at the margin that are embedded in the models or the data;
- Assess the reasonableness and economic prudence of the OPA's case;
- Understand how alternative assumptions would affect the OPA's Plan outcomes; and
- Confirm that their analysis reflects the OPA's assumptions correctly.

The Board addresses this motion using the same four categories used by GEC.

Background information and studies

GEC requested all background information and studies that the OPA considered in developing its Plan in relation to 29 of its interrogatories or parts of its interrogatories.

GEC requested all background information that the OPA has related to:

- Conservation and Demand Management ("CDM") performance of Ontario's local distribution companies and distributors of other jurisdictions as well as avoided CDM costs;
- Cogeneration potential in Ontario;
- Real-time and time-dependent electricity pricing programs;
- Power system nuclear integration and projected nuclear outage rates;
- Overall Plan operability, impact on the Plan of major project delays and suitability of interconnections to meet supply needs;
- Greenhouse gas reduction, reporting and related issues.

At the hearing into the motion Mr. Poch, counsel for GEC proposed to narrow the request to the information, studies, or memos created either by, or for, the OPA, or other documents that are of particular relevance to the choices the OPA made.

Mr. Poch commented that the OPA had not suggested that the information GEC was seeking was out of scope, nor did it deny that there were additional studies or background material.

Mr. Cunningham, Counsel to the Nishnawbe Aski Nation, indicated its support of GEC's motion.

Mr. Mondrow, Counsel for the City of Toronto, stated that his client had a keen interest in the treatment of CDM and alternative energy options by the OPA and was supportive of GEC's request for further information. His client was sympathetic to the concerns of OPA with regard to the scope of concerns and the effort required to put the requested information on the record, saying it would endorse more rigour on the part of GEC in making its requests. However, he also stated that his client would support the provision of additional information by the OPA to address GEC's requests under careful direction from the Board.

Mr. Monem, Counsel for the Saugeen Ojibway Nations spoke in support of GEC's motion. He stated his client was particularly concerned regarding provision of further information with respect to renewable energy cost assumptions and assumptions underlying OPA's LUEC (Levelized Unit Energy Cost) analysis. He stated this information related to OPA's analysis of potential wind generation sites, which was of significant interest to his client.

Mr. Vegh, counsel for the OPA, stated that the OPA takes its responsibility as a public agency very seriously and that providing information and understanding of its application to the public is not only a legal requirement but necessary for the long term success of the IPSP process. However, the OPA stated, the unanswered requests for background information were too broad in scope and not specific. The OPA was concerned about the extent of effort that would be required to search for and gather the information requested and this effort, in its view, far outweighed the probative value of the information, especially in light of the considerable volume of information it had already provided. The OPA was concerned about the delays in the proceeding that would result from meeting these requests, delays that it believed could seriously threaten the relevance of the overall review process. Mr. Vegh noted that there would be opportunity for further discovery at the hearing.

The OPA pointed to the Board's Rules of Practice and Procedure in support of its position. Specifically, Mr. Vegh argued that Rule 28 stated that the purpose of interrogatories is to clarify evidence, simplify issues, to permit a full and satisfactory understanding of the matters to be considered and to expedite the proceeding. It was not to allow for an indiscriminate data search. Second, he pointed to Rule 28.02(d) that interrogatories shall contain specific requests for clarification of evidence, documents or other information in the possession of the party and relevant to the proceeding. GEC's requests did not meet the requirement for specificity. And finally he relied on Rule 29.02

(b) that addresses the situation where a party contends that the information requested is not available or cannot be provided with reasonable effort. Mr. Vegh argued that this was the situation in this case, that the effort required far outweighed the probative value of the additional information requested.

In his reply submission, Mr. Poch pointed to the request for nuclear integration studies as an example of a specific request, and in the absence of knowing what studies the OPA had, it was difficult to be more specific.

The Board understands GEC's position that it wishes to have detailed background information to gain a better understanding of the issues in this complex case. The subject areas of its requests are areas relevant to the Board. At the same time, the Board understands the position of OPA that the effort to fulfill all the requests raised by GEC will be very time consuming and could lead to delays in the hearing process.

The Board notes that there will be opportunity during the course of the hearing for further discovery through cross-examination.

The Board also notes that GEC's proposal to narrow its request focussed only on studies that were not conducted or commissioned by the OPA itself, GEC still requested all information the OPA had in its possession that OPA had undertaken itself or had commissioned. This is likely to be a large quantity of information and will require considerable time to produce.

Given these concerns the Board will not order the OPA to meet GEC's request for the filing of all background information in its possession in the areas identified by GEC. The Board agrees with the OPA that the requests were too broad and lacked specificity. In our introductory comments to these findings the Board has concluded that broad requests such as these are not helpful to the Board.

Models, spreadsheets and work papers

GEC requested the OPA to file models, spreadsheets and work papers that are used or support the responses the OPA provided to a number of interrogatories.

Mr. Poch noted that the OPA had refused to provide the information for all the models it used including what GEC viewed as simple non-licensed and non-proprietary Excel

spreadsheets. Mr. Poch challenged the rationale for denial based on the need for training, arguing that GEC had retained its own experts who were very familiar with models and capable of interpreting, analyzing and utilizing such models. It expected that at most some informal inquiries as to how something flows in the model would arise. With regard to the OPA's concern about disclosing licensed models, it stated that its experts are prepared to enter into appropriate non-disclosure agreements.

Mr. Poch noted that because of the fact the result of the model runs had been provided at the same time as the answers to interrogatories, there had not been an opportunity to ask questions about the results and to understand how they arose from the model runs. GEC stated it needed access to the models to get a better understanding as to how the models work and to examine the effects of changes in the model inputs and assumptions. GEC made reference to two instances where clarification of the model results would be helpful:

1. Model Run No. 2 "Applying historical nuclear unit performance" requested by Energy Probe
2. Model Run No. 3 "High nuclear costs" requested by GEC.

Mr. Poch stated it was never GEC's position that the undertaking of the model runs was a complete substitute for provision of the models, spreadsheets and workpapers. However GEC was prepared to narrow its request and seek filing of only five models:

- the Reserve and Insurance Requirement Calculator;
- the Capacity Planning Tool;
- the Profile Generator for Hydro;
- the Profile Generator for Wind; and
- the Portfolio Screening Model.

In its response to IR 41 the OPA outlined its reasons for refusing to provide the information. The OPA submitted that it had put considerable effort into producing model runs to assist intervenors and Board Staff. The OPA believed this approach was a more effective way to provide information rather than handing over the models and raw data to intervenors. The OPA held a seminar to explain the 40 or so models it used. It stated that the models were not off the shelf "plug and play" software that allowed simple runs. The OPA stated that in most cases there were no operations manuals, and the models often required interaction and the exercise of judgment. The OPA contended that if the

models were provided to the intervenors it could take up to several months to provide instruction and assistance in how to use them. In addition, the OPA submitted that some of the models were subject to licensing and other proprietary restrictions. The OPA commented that it had spent considerable time handling GEC's particular requests.

In his oral submissions, Mr. Vegh reiterated these concerns and submitted that all models, even the Excel spreadsheets required explanations. He also noted that the outcomes of the model runs and the assumptions would be subject to cross-examination.

Mr. Vegh stated that GEC had failed to provide affidavit evidence from its expert consultants supporting its contention that the model runs prepared by the OPA were insufficient and that it faced prejudice in preparing its case in the absence of additional model runs.

With regard to the reduced set of models now sought by GEC, Mr. Vegh indicated that the Portfolio Screening Model and the Profile Generator for Hydro were large and complex and were proprietary models. The OPA still resisted the production of the other three models on a principled basis but acknowledged that the production of these models would not raise the same practical concerns for the other two models.

In an attempt to reach an accommodation with regard to GEC's request for access to the models, the Board wrote to GEC and the OPA seeking their comments on the following proposal:

"The Board could require the OPA to provide to GEC's experts the opportunity to attend at the OPA's offices to join with OPA staff in completing one or more model runs employing assumptions and inputs as selected by GEC. The intention would be to have the GEC representatives be able to observe all phases of these model runs so that they could better understand such matters, as for example:

- how the data input is carried out;
- how the general logic structure and the model connectivity perform; and
- if there are any embedded decision-making rules or trade-offs employed that they are unaware of."

The Board noted that GEC could then use the results in their cross-examination and in the preparation of their evidence. It stressed that this would not be an unlimited opportunity. Only a reasonable amount of OPA staff time would be involved; for example two or three business days. A representative of Board staff would also attend.

GEC responded that the Board's proposal was generally a workable solution while addressing the OPA's concerns. GEC suggested that providing the wind profile, capacity planning and reserve calculator models, for which it understood the OPA did not appear to have strong objection to disclosure, would help reduce the time required for study and runs at the OPA's offices. GEC, however, noted that its expert would not be available at the OPA's offices until some time during the first two weeks in August, and that while this would not permit GEC to address any new information in its written evidence, it would inform its cross-examination and if needed enable it to make corrections to its evidence. GEC stated that it considered the two or three days suggested by the Board for this initiative was about right assuming GEC could retain the input and outputs of the runs. GEC commented that it understood the OPA did not object to providing this data.

The OPA responded that while the OPA appreciated the Board's proposal as a way to address GEC's and the OPA's concerns, it believed that providing the three more manageable models to all parties was preferable to the Board's proposed process. Mr Vegh was concerned about the transparency, fairness and practicality of the proposed process. With regard to transparency, he stated that production of the models would put the information on the record, while in the proposed approach, the discussions would only be known to the parties present, namely GEC, OPA staff and the Board staff representative. With regard to fairness, he stated that providing GEC with the opportunity for additional model runs but not making this available to other parties seemed unfair. Since GEC had advised that its expert could not attend at the OPA's office until after GEC had filed its evidence, he questioned the value of the proposed process. He also raised concerns about the burden this proposal would put on OPA staff.

The Board attempted by its proposed approach to reach a resolution of the concern's of both GEC and the OPA with regard to the production of the models utilised by OPA in preparation of the IPSP. The Board has closely reviewed the comments received from GEC and the OPA. The Board notes that the question of production of models was raised only by the GEC. No other party requested production by Notice of Motion. The

Board also understands from Mr. Poch's statements that other parties have indicated to GEC that they are relying on the GEC to address issues surrounding the models. The Board notes that although all parties to the IPSP proceeding were copied with the Notices of Motion and made aware of the hearing dates, only counsel for the Saugeen Ojibway Nations, the City of Toronto and the Nishnawbe Aski Nation attended the hearing and spoke in support of GEC's request. The Board believes that the fairness concerns raised by the OPA with regard to the Board's proposed process are to a great extent mitigated by these facts. The Board accepts the statement of GEC's counsel that other parties are relying on GEC to test the validity of the models.

With regard to the OPA's concerns with regard to transparency, the Board believes that if the data inputs, assumptions and outputs of any model runs undertaken during the proposed process are placed on the record, the concerns of transparency are largely addressed. With regard to the concerns about practicality, while GEC will not have the results of the runs in time to prepare its evidence, GEC will have this information available to prepare cross-examination. This should result in more focused and effective cross-examination. Finally with regard to the OPA's concern about the added burden on its staff, the Board recognizes the burden the entire hearing places on the OPA staff. However, the Board believes that the additional value the resulting information may have for the Board out-weighs this concern.

The Board also notes the OPA's willingness to produce the three models, although the Board understands there may be some concerns from third parties with regard to the confidentiality of the data contained therein.

Because of their complexity and proprietary nature, the Board will not require production of the Portfolio Screening Model or the Profile Generator for Hydro.

The Board orders as follows:

1. The OPA shall provide to GEC copies of the Reserve and Insurance Calculator, the Capacity Planning Tool and the Profile Generator for Wind.
2. The OPA shall provide GEC with the assumptions, inputs and outputs from the three models provided.

3. The OPA shall provide to GEC's experts the opportunity to attend at the OPA's offices, to join with OPA staff in completing one or more model runs employing assumptions and inputs as selected by GEC. The intention is to have the GEC representatives be able to observe all phases of these model runs so that they can better understand such matters as, for example: how the data input is carried out; how the general logic structure and the model connectivity perform; and if there are any embedded decision-making rules or trade-offs employed that they are unaware of. This opportunity should be time-limited to no more than three business days. A Board staff representative will be in attendance.
4. GEC shall file all assumptions, inputs and outputs from the model runs on the public record.
5. GEC's counsel and experts, and any party that has access to confidential information as a result of this order of the Board, shall enter into a confidentiality agreement in the form specified in the Board's Rules of Practice and Procedure.

Data inputs and outputs

GEC requested the OPA to file the assumptions or raw data that was input to its various models and the outputs of its models.

The OPA's response to this request was that the data was of no value without the models and the OPA argued against providing the models. However, since the Board is directing the OPA to provide three models to GEC (the Reserve and Insurance Calculator, the Capacity Planning Tool and the Profile Generator for Wind), the Board also directs the OPA to provide sufficient input data for these models to allow GEC to effectively run their chosen simulations.

GEC's overall request for data which had not been provided by the applicant referred to seven separate GEC interrogatories. Five of those interrogatories involve proposed model runs of the Portfolio Screening Model. Since GEC will not have that particular model, this data is not required nor would it be useful.

The Board notes that two of the interrogatories (46b and 210) are not data inputs related to model runs and involve information that is likely available to the OPA. Interrogatory 46b involves data related to projected transmission investments for the Plan period and interrogatory 210 involves inputs for a probability distribution for resources at risk in the Plan for the year 2016. The Board has determined that it would be assisted by the replies to GEC interrogatories 46b and 210 and directs the OPA to provide a response.

Other non-responsive interrogatories

GEC and the OPA noted that three of the IRs in this grouping had been resolved in the July 11, 2008 written submission from GEC., namely IR 22, IR 31 and IR 118c.

IR 53 a, b and c GEC requested information on the demand elasticity inputs used in its load forecasts. The OPA responded there are no demand elasticities built into the model.

The Board believes that the OPA's responses are sufficient at this time and may be clarified under cross-examination.

IR 61, 62 and 63 GEC sought information on how storage was valued in the various IPSP models and information on the value of any ancillary service which could provide such storage. In addition GEC sought the OPA's best estimate of the value of some specific storage capacities posed by GEC.

The OPA replied that storage was a capacity resource. Mr Vegh indicated that it was not proposed in the Plan because storage attributes were insufficient to warrant inclusion.

The Board finds that the topic of storage is relevant to the proceeding. However, the Board infers from the OPA's response to interrogatory 64 that the OPA has no further information or analysis on storage. Therefore the Board considers the OPA's response to be complete. The Board expects that this topic will be further addressed through intervenor evidence and cross-examination.

IR 90 and IR 110 GEC asked for a significant amount of information regarding the nuclear technologies under consideration for Ontario's new nuclear projects. GEC said

that it sought this information to be able to test the variability in the Plan and its resilience depending on the technology chosen. The OPA submitted that analysis of the various nuclear technologies is out of scope because the issue of the choice of nuclear technology was ruled to be out of scope in the Board's Issues Decision.

While, the matter of the resilience of the IPSP is certainly within the scope of the proceeding, the breadth of information requested by GEC in these interrogatories is more than required by the Board for this purpose. Therefore, the Board does not require the OPA to respond to these interrogatories. However, the Board would be better informed if it had an understanding of the range of capacity factors possible given the technologies being considered for new nuclear resources. The Board therefore orders the OPA to provide this information, or if it is unable to do so, to explain why. The Board notes that it does not require information that is specific for each technology.

IR 178 GEC, through its Motion, sought the OPA's comments on whether the plans that resulted from the various model runs performed for GEC could be implemented, and in particular, Mr. Poch highlighted the results of Model Run 3, the High Nuclear Costs scenario. The OPA responded that these results are not detailed plans supported by careful assessment by the OPA of the implementation requirements. They are just the results of running the models with various assumptions put forward by the intervenors to test the implications of the different assumptions. The OPA is therefore not able to respond to the request.

The High Nuclear Cost scenario is relevant to the proceeding. However, the Board expects that the issue of implementation can be addressed during cross-examination and does not order the production of further information at this time.

IR 197a, and IR198a GEC requested background reports and studies to explain the basis for the OPA's selection of the form and parameters for the probability distribution it had used in its models for conservation additions and renewable supply additions risk. Mr. Vegh stated that the response was complete and that clarification could be sought during cross examination.

The Board agrees with the OPA that its response is complete and therefore will make no further direction on this matter.

IR 205 GEC requested the inputs and outputs of the Monte Carlo model used to generate probability distributions on existing nuclear plant performance. GEC noted that

the OPA had provided this information in part but had redacted the information for the 2009 to 2014 time period on the grounds of confidentiality. Mr. Vegh responded that in the absence of a Board order, the OPA was not in a position to release this information under the confidentiality agreements it has in place with OPG and Bruce Nuclear Power.

The Board believes this information to be of relevance to the hearing and directs the OPA to produce it. The Board accepts the OPA's submissions that this information should be granted confidential status, and therefore it will only be made available to parties that sign the Board's confidentiality Undertaking (which is found at Appendix D of the Board's Practice Direction on Confidential Filings).

IR 212 GEC requested information on all capacity retirement dates. GEC stated that retirement dates had only been provided for Non-Utility Generation ("NUGs") and the dates were end of contract dates and not end of life dates. GEC Counsel noted that the OPA had provided an updated response but that it was still seeking clarification of the interpretation of these dates. Mr. Poch also asked for unit-specific retirement dates for the existing nuclear plants which the OPA refused to provide on the grounds of confidentiality.

Regarding further information on retirement of NUGs, the Board is satisfied that information provided is sufficient and regards contract expiry as a reasonable proxy for retirement date. Regarding the retirement of existing nuclear plants, the Board finds that unit retirement dates are relevant information that will be helpful to the Board and orders its production, or, if it is unable to do so, explain why. The Board accepts the OPA's submissions that information relating to the retirement dates of existing nuclear plants should be granted confidential status, and therefore this information will only be made available to parties that sign the Board's confidentiality Undertaking.

IR 221 d GEC asked the question "is increased reliance on interconnections to retire coal plants feasible and at what cost". The OPA responded that the response was complete and contained reasons as to why increased reliance on interconnections was not appropriate for this purpose. GEC counsel in his reply submission stated that all OPA had done was state that contracts were necessary and that answer was not sufficient.

The Board believes the OPA's response to be complete and therefore will provide no further direction on this matter.

The City of Thunder Bay, the Northwestern Ontario Municipal Association and the Town of Atikokan

NOMA brought a motion seeking further and better answers to NOMA interrogatories 1 and 2. In addition, NOMA sought the production of documents from the OPA, the Independent Electricity System Operator ("IESO") and Hydro One Networks Inc.

The first part of the motion, seeking better answers to interrogatories 1 and 2, proposed questions relating to a comparison of environmental impacts, particularly emissions, and costs between coal fired generators, existing gas fired generators, and planned gas-fired generation in the northwest. The "planned generation" refers to the potential for the conversion of the Thunder Bay Generating Station to gas-fired generation, which appeared in the results of a modelling run undertaken by the OPA at the request of NOMA and containing assumptions proposed by NOMA.

The second part of the motion sought an order for the production of documents from the OPA, the IESO and Hydro One as follows:

- The IESO System Control Order for the 10 electrical zones in Ontario; and
- All documents, including without limitation, analyses, reports and professional opinions relating to inertia.

Counsel for NOMA, Mr. Melchiorre, argued that both types of requests flowed directly from the interrogatory responses, and were also grounded in the wording of the Supply Mix Directive, Regulation 424/04 and the Board's Issues List for the proceeding. Mr. Melchiorre also argued that even if the Board found that the requests for information did constitute a second round of interrogatories, procedural fairness would dictate that NOMA should be permitted an opportunity to ask interrogatories regarding the potential for the conversion of the Thunder Bay Generating Station to gas-fired generation, as this possibility was first mentioned in a model run delivered to NOMA at the same time as the responses to the interrogatories.

With respect to the requests for production of documents, Mr. Melchiorre argued that the documents would assist parties and the Board in approaching several issues on the Issues List, particularly issue 34, which deals with system reliability in all regions of

Ontario. The Board has the power, it was submitted, to order such production under its own Rules of Practice and Procedure or under the Statutory Powers Procedure Act.

Mr. Vegh, for the OPA, submitted that the requests by NOMA were properly characterized not as a request for further and better answers to interrogatories, but as a request for a second round of interrogatories, or an extension of time to file interrogatories. It would not be fair, Mr. Vegh argued, to give just one party an opportunity to ask a second round of interrogatories. With regard to the questions arising from the possibility of the conversion of the generating station to gas, Mr. Vegh pointed out that there is no such proposal in the IPSP, and the suggestion arose only from a model run whose assumptions were dictated by NOMA. The OPA is not proposing such a conversion now, and Mr. Vegh submitted that if such a proposal were to come forward, all parties would have an opportunity to ask questions about it. Lastly, Mr. Vegh argued that if the Board were to consider the substance of the motion for the production of documents from the IESO and Hydro One; that those third parties should be given the opportunity to make submissions on whether the documents that are in their possession should be produced.

The Board agrees with Mr. Vegh that the questions now being posed by NOMA are not requests for better answers to interrogatories already asked by NOMA. The questions are different. However, this fact is not necessarily determinative of the matter. The Board has the power under the *Ontario Energy Board Act, 1998* section 21(1) to give directions or require the preparation of evidence at any time when it is exercising the powers conferred on it. If the Board found that certain information from the OPA was necessary for it to fulfil its mandate to review the IPSP, it could order such information to be produced. In doing so, the Board would have to have regard to procedural fairness, and, in this case, to the critical importance of the hearing schedule.

The Board finds that it does not require the answers to the questions posed in the first part of NOMA's motion. The answers provided by the OPA to the NOMA interrogatories, particularly when read together, are sufficiently complete and responsive. On the question of the opportunity to ask interrogatories about the possibility of a conversion of the Thunder Bay Generating Station to gas, the Board does not expect the OPA to have detailed information on this topic since such a conversion is not proposed in the IPSP. NOMA may choose to produce evidence itself or cross-examine on this topic.

Similarly, the Board will not order the production of documents as requested in the second part of the NOMA motion. NOMA argued that the request for production of the IESO system control orders flows directly from the OPA's response to NOMA's interrogatory 1a.(Is the Northwest an electricity system island?) and that the system control orders will show that the Northwest is an electricity system island. The Board finds that OPA's response to 1a) to be responsive and complete. The response provides both a clear answer and rationale in support of the answer and the Board is satisfied that it does not require more information at this time. The Board agrees with NOMA's assertion that this matter is relevant to issue 34 of the issues list regarding reliability. NOMA will have the opportunity to challenge the OPA's response during the oral phase of this proceeding.

NOMA also requested the production of documents originating from OPA, IESO and Hydro One relating to inertia in the Northwest. NOMA argued that the request flows appropriately and directly from the OPA's responses to interrogatories number 5 c), d) and e) and in particular the OPA's inclusion of a reference to model runs in these responses. NOMA submitted that these interrogatories dealt with inertia issues and were within the scope of issue number 34 on reliability as well as issue numbers 20, 21 and 33 pertaining to the cessation of the use of coal as well as safety and environmental protection.

As stated above the OPA argued that the request should be denied because the IPSP does not contain a planned conversion to gas-fired generation.

The Board does not consider it necessary to grant the request to order production of reports pertaining to inertia. The OPA has been clear about its planning activities pertaining to generation resource options pre and post the cessation of the use of coal fired generation and has been explicit regarding their views pertaining to the effect of the shutting down of the coal-generation plants by 2014. This iteration of the IPSP does not contain firm generation plans for the Northwest beyond 2014 and it does not deal with the inertia issues that may arise in that time frame. NOMA may provide evidence, cross-examine and make arguments on the appropriateness of this aspect of the Plan. However, the Board is of the view that in order to conduct an effective and efficient hearing, the degree of probing of the various elements of the IPSP must be commensurate with the degree to which the IPSP is reliant on those elements for its success.

Xylene Power

Dr. Charles Rhodes, on behalf of Xylene Power, brought a motion seeking further and better answers to a large number of interrogatories that the OPA had refused to answer on various grounds, or had, in Mr. Rhodes' submission, answered inadequately. Dr. Rhodes, in his oral submissions, argued that the interrogatories were relevant to the proceeding, as he wished to demonstrate in the hearing that the IPSP is inadequate with respect to several factors, including overuse of fossil fuels, lack of planned energy storage and failure to quantitatively consider the severe consequences of global warming.

Dr. Rhodes argued that answers to these interrogatories are required to demonstrate serious failings in the IPSP that will have grave environmental effects. In particular, he argued that the emphasis in the IPSP on fossil fuel generation is short-sighted and ignores the human and environmental catastrophes that will result from global warming.

Mr. Vegh argued in response that the majority of the interrogatories asked by Xylene Power did not serve the purposes required of interrogatories in the Board's Rules of Practice and Procedure; they did not clarify the application, simplify the issues, improve understanding of the issues or expedite the proceeding. The questions, he argued, were not relevant to the IPSP as filed. Mr. Vegh recognized that Dr. Rhodes has a very different perspective on the issues from that of the OPA, but suggested that there is sufficient information on the record as it stands for Dr. Rhodes to make his arguments criticizing the IPSP. In addition, Dr. Rhodes can bring forward the articles he seeks in several of the interrogatories as evidence filed by Xylene Power.

The Board agrees with Mr. Vegh that many of the interrogatories posed by Xylene Power do not comply with the purposes for interrogatories set out in Rule 28.01 of the Board's Rules. Many of the disputed questions asked the OPA to provide detailed information that would not be helpful to the elucidation of the IPSP, or the Board's mandate in reviewing the Plan. Dr. Rhodes can bring forward his criticisms of the Plan without a need for the detailed information he sought from the OPA.

The interrogatories of Xylene Power were directed at issue A11, which is:

“What is the base-load requirement after the contribution of existing and committed projects and planned conservation and renewable supply?”

However in the motion record and in his oral remarks, Dr. Rhodes also indicated that his interrogatory questions related to Issues A31 and A32 (Environmental Issues in Developing the IPSP).

It is not part of this Board's mandate to recalculate the base load requirement in the Plan. It is part of the Board's mandate to test the Plan for its robustness in the face of change. The Board believes many of the issues raised by Dr. Rhodes for Xylene Power would more properly be considered under issue A33, which reads:

“Do the forecasts relied upon by the OPA in developing the IPSP, and the uncertainties attributed to them, present a reasonable range of future outcomes for planning purposes?”

The Board's Issues Decision, at page 11, describes the scope of this issue:

“The Board agrees that its responsibility in this proceeding does not extend to approving the demand forecast and reserve requirement. However, it is important, in the context of examining how the planners developing the IPSP used the forecast, to query the main assumptions in the forecast and how the Plan will change or adapt in response to variations from that forecast.”

The Board will not require the OPA to provide further answers to the interrogatories posed by Xylene Power. The Board did, however, find the submissions of Dr. Rhodes insightful, and believes that his perspective on issues in this proceeding will continue to be of value to the Board. The Board would be assisted in having more information on several of the topics raised by Xylene Power's interrogatories and Motion, to be considered as part of issues A11 and A33. Therefore, the Board will require the OPA to file with the Board, and copy to all intervenors, the answers to the following questions:

1. Did the OPA give consideration to the following areas when assembling the IPSP:
 - A large scale energy conversion of natural gas/oil heating systems to electrical grid power;
 - A large scale energy conversion of gas/diesel transportation vehicles to batteries charged by electrical grid power; and
 - Significantly more storage capability such as pumped hydraulic storage to assist wind and solar?

If these factors were considered, how did each of them affect the Plan and the Plan outputs? What accommodations had to be made to the Plan as a result? If these factors were not considered, please explain in detail why not.

2. Describe how the OPA will monitor societal and technological developments relevant to energy system planning. Please describe how such changes as those mentioned in question 1, should they arise, will be incorporated into future iterations of the IPSP.

Summary of Board Requirements on Motions on Interrogatory Responses

NCO

- 1) The Board orders the OPA to provide an answer which identifies all projects within the IPSP that affect or may affect First Nations Reserve and Treaty Lands. This listing should include any projects on which work is done or money committed or for which development is expected to occur during the following three time frames:
 - 2007 and 2010
 - 2010 and 2013
 - beyond 2013.

The listing should be divided by these time frames

GEC

Models, spreadsheets and work papers

The Board orders as follows:

- 2) The OPA shall provide to GEC copies of the Reserve and Insurance Calculator, the Capacity Planning Tool and the Profile Generator for Wind.
- 3) The OPA shall provide GEC with the assumptions, inputs and outputs from the three models provided.

- 4) The OPA shall provide to GEC's experts the opportunity to attend at the OPA's offices, to join with OPA staff in completing one or more model runs employing assumptions and inputs as selected by GEC. The intention is to have the GEC representatives be able to observe all phases of these model runs so that they can better understand such matters as, for example: how the data input is carried out; how the general logic structure and the model connectivity perform; and if there are any embedded decision-making rules or trade-offs employed that they are unaware of. This opportunity should be time-limited to no more than three business days. A Board staff representative will be in attendance.
- 5) GEC shall file all assumptions, inputs and outputs from the model runs on the public record.
- 6) GEC's counsel and experts, and any party that has access to confidential information as a result of this order of the Board, shall enter into a confidentiality agreement in the form specified in the Board's Rules of Practice and Procedure.

Specific interrogatories

- 7) The Board orders that answers to the following GEC interrogatories be provided by the OPA:
 - a) GEC interrogatory 46b concerning transmission investments for the Planned period;
 - b) GEC interrogatory 205 concerning the inputs and outputs of the Monte Carlo Model used to generate probability distributions on existing nuclear plant performance. GEC's counsel and experts, and any party that wishes to have access to information deemed confidential by the Board in this decision, must first sign the Board's confidentiality Undertaking;
 - c) GEC interrogatory 210 concerning inputs for a probability distribution for resources at risk in the Plan for the year 2016; and
 - d) GEC interrogatory 212 concerning unit retirement dates of existing nuclear plants.
- 8) GEC's counsel and experts, and any party that wishes to have access to information deemed confidential by the Board in this decision, must first sign the Board's confidentiality Undertaking.

The Board also orders the OPA to file with the Board and copy to all intervenors the answer to the following question:

- 9) What range of capacity factors are expected for the technologies being considered for new nuclear resources in Ontario? If the OPA is unable to provide this information, please explain why. The Board notes that it does not require information that is specific for each technology.

Xylene

The Board orders the OPA to file with the Board and copy to all intervenors answers to the following questions:

- 10) Did the OPA give consideration to the following areas when assembling the IPSP:

- a) A large scale energy conversion of natural gas/oil heating systems to electrical grid power;
- b) A large scale energy conversion of gas/diesel transportation vehicles to batteries charged by electrical grid power; and
- c) Significantly more storage capability such as pumped hydraulic storage to assist wind and solar?

If these factors were considered, how did each of them affect the Plan and the Plan outputs? What accommodations had to be made to the Plan as a result? If these factors were not considered, please explain in detail why not.

- 11) Please describe how the OPA will monitor societal and technological developments relevant to energy system planning. Please describe how such changes as those mentioned in question 10, should they arise, will be incorporated into future iterations of the IPSP.

DATED at Toronto, July 29, 2008

ONTARIO ENERGY BOARD

Original signed by
Kirsten Walli
Board Secretary