Ontario Energy Board

Commission de l'énergie de l'Ontario

EB-2011-0140

IN THE MATTER OF sections 70 and 78 of the *Ontario Energy Board Act 1998*, S.O.1998, c.15, (Schedule B);

AND IN THE MATTER OF a Board-initiated proceeding to designate an electricity transmitter to undertake development work for a new electricity transmission line between Northeast and Northwest Ontario: the East-West Tie Line.

PROCEDURAL ORDER NO. 6

March 04, 2013

In accordance with the Board's Phase 1 Decision and Order in this proceeding dated July 12, 2012, registered transmitters seeking designation to undertake development work for the East-West Tie line filed their applications for designation on January 4, 2013. Procedural Order No. 5 dated January 8, 2013, invited parties to this proceeding to propose written interrogatories that request information from the applicant transmitters that is relevant to this proceeding. Seventeen parties, including the six applicants, filed interrogatories for the Board's consideration.

This document provides the Board's decision regarding the interrogatories to be answered by the applicants and provides a schedule for the remaining procedural steps in this proceeding.

Interrogatories

The Board has considered the parties' proposed interrogatories, and will require the applicants to respond to the interrogatories attached as Appendix A to this procedural order.

The number of interrogatories in Appendix A is substantially less than the total number proposed. This is not a reflection of the quality of the questions proposed, many of which were excellent. The number of interrogatories to be answered does reflect the Board's view, as stated in Procedural Order No. 5, that in this competitive process the applicants should be compared on the basis of the applications as filed.

The interrogatories in Appendix A in many cases seek clarification of an application. Additional information, or a restatement of information, is sought where it will assist the Board and does not appear to invite modification or augmentation of an application, or require excessive detail from the applicants. The Board also attempted to avoid providing opportunities for transmitters to fill any gaps in their applications or to modify or enhance their proposals. Some of the proposed interrogatories invited applicants to make comparisons, or discuss the relative merits of proposals, or assess trade-offs amongst criteria. While these may be interesting and valid considerations in this proceeding, they are most appropriately addressed through argument. Proposed interrogatories that requested the type of information, or level of detail, more appropriately included in a leave to construct or environmental assessment proceeding were not accepted by the Board. The Board also combined similar interrogatories in order to minimize duplication.

PROCEDURAL STEPS

Written submissions

Following the receipt of responses to the interrogatories from the applicants, the Board will invite all parties to submit written argument regarding the choice of a transmitter to be designated to undertake development work for the East-West Tie line. Applicants will be given two opportunities to submit argument: an argument in chief, and a reply to the arguments of intervenors and the other applicants.

Given the competitive nature of this process, the Board will require that applicants who wish to critique the applications of others, and compare the relative merits of the applications, do so in their argument in chief. The Board will not have regard to new criticisms raised for the first time in reply argument. Applicants may, of course, respond to the critiques of other parties in their reply argument.

Oral representations

The Board has determined that it would be assisted by hearing oral submissions from those communities located in proximity to the existing East-West Tie transmission line. The Board has therefore set aside two days for oral sessions to be held in Thunder Bay. The Board invites intervenors who primarily represent local interests to schedule time for local representatives to be heard. Appendix B to this procedural order lists those parties the Board considers to primarily represent local interests. Each intervenor will be allotted approximately 45 minutes for its presentation. These intervenors will also have the opportunity to file written submissions on May 6, 2013, along with the other non-applicant intervenors.

Local representatives who appear in Thunder Bay will not be required to give sworn testimony, nor be cross-examined. They will be invited to make oral submissions on behalf of their constituency. The submissions should be restricted to matters that are relevant to the Board's decision in this designation proceeding, and that concern local interests. The Board will not hear matters more properly discussed during a leave to construct or environmental assessment proceeding. Parties should refer to the Board's Phase 1 Decision when considering relevance. The Board will not answer questions about its deliberations or potential decision.

The oral sessions will be public; however, time to make oral submissions will be given only to representatives of registered intervenors who primarily represent local interests. The applicants are welcome to attend, however it is not the Board's intention to invite representations from the applicants. The oral sessions will be transcribed and form part of the record of the designation proceeding.

The Board therefore makes provision for the following matters. The Board may issue further procedural orders from time to time.

THE BOARD ORDERS THAT:

1. The applicants shall file with the Board and copy to all parties a complete response to the interrogatories listed in Appendix A on or before **March 28, 2013**. Each applicant should answer the common questions addressed to all applicants plus the questions addressed to that applicant. The date has been chosen having regard to the schedule for March break for schools in Ontario,

and given the limited number of interrogatories, is seen by the Board as providing adequate time for responses.

2. If Board staff chooses to make a submission, it shall file that submission with the Board, and copy it to all parties on or before **April 8, 2013**.
3. Any applicant that wishes to file an argument in chief shall file that submission with the Board and copy it to all parties on or before **April 18, 2013**.
4. Any non-applicant intervenor that wishes to file a submission shall file it with the Board and copy it to all parties on or before **May 6, 2013**.
5. Any applicant that wishes to file a reply argument shall file that submission with the Board and copy it to all parties on or before **May 30, 2013**.
6. The Board will convene oral sessions in Thunder Bay on **May 2 and 3, 2013**. Any non-applicant intervenor that primarily represents local interests is invited to contact the Board Secretary to book a time for its representative(s) to present an oral submission to the Board. Further details of the location and schedule of the oral sessions will be provided in subsequent correspondence.

All filings to the Board must quote the file number, EB-2011-0140, be made through the Board's web portal at https://www.pes.ontarioenergyboard.ca/eservice/, and consist of two paper copies and one electronic copy in searchable / unrestricted PDF format. Filings must clearly state the sender's name, postal address and telephone number, fax number and e-mail address. Please use the document naming conventions and document submission standards outlined in the RESS Document Guideline found at www.ontarioenergyboard.ca. If the web portal is not available you may email your document to the address below. Those who do not have internet access are required to submit all filings on a CD or diskette in PDF format, along with two paper copies. Those who do not have computer access are required to file 7 paper copies.

All communications should be directed to the attention of the Board Secretary at the address below, and be received no later than 4:45 p.m. on the required date.

ADDRESS

Ontario Energy Board,
P.O. Box 2319
2300 Yonge St.
Suite 2701,
Toronto, Ontario, M4P 1E4
Attention: Board Secretary

Filings: https://www.pes.ontarioenergyboard.ca/eservice/
Email: boardsec@ontarioenergyboard.ca
Tel: 1-888-632-6273 (Toll free)
Fax: 416-440-7656

DATED at Toronto, March 4, 2013
ONTARIO ENERGY BOARD

Original signed by

Kirsten Walli
Board Secretary

APPENDIX A

INTERROGATORIES FOR APPLICANTS

Questions for all applicants:

1. Please provide your proposed organizational chart for the project development and construction phases as well as for the operation and maintenance phase, showing the various functions (including those functions listed in 4.1 of the Filing Requirements) and the reporting structure. Please include in these charts the names of members of the proposed management team (including the project manager / lead) and technical team who would be leading each function.

2. For the chosen project manager / lead, please confirm if this person will be dedicated to this project and describe this person's experience in managing similar projects.

3. For the list of "key technical team personnel" provided in response to section 4.2 of the Filing Requirements, please provide the specific proposed project / O&M role for each member.

4. On a national and international basis, identify any and all transmission projects where the applicant, its partner(s), shareholder(s), affiliate(s) or other related entities (collectively referred to as the "Applicant") have commenced the construction of a new transmission line but which the Applicant has been unable to complete and/or bring into service. Please describe the reasons why the Applicant has been unable to complete the transmission line and/or bring it into service.

5. Please list the individuals that you plan to allocate to each of a) negotiating First Nation and Métis participation and b) conducting consultation with First Nation and Métis communities as delegated by the Crown. For each individual, please describe the individual's responsibilities on the team, relationship to the affected communities (if any), and relevant experience

6. If you are selected as the designated transmitter, will the First Nation and Métis communities identified by the Ministry of Energy in its letter to the Ontario Power Authority ("OPA") dated May 31, 2011, and possibly other affected and interested First Nation and Métis communities, be given an equal opportunity to participate in the project? Will all affected (or interested) First Nation and Métis communities

be given equal opportunity for **all forms** of participation in the project (e.g. employment opportunities, equity participation)?

7. Does a First Nation or Métis community need to be "affected" by the project, in order to participate, or can it participate if it is not affected but still interested?

8. Have you (or an affiliate) assisted, or will you (or an affiliate) assist, a prospective First Nation and Métis equity participant by providing a loan, by arranging financing through an independent financial institution, or otherwise? If yes, please explain how.

9. Have you undertaken, or will you undertake, an assessment to quantify the potential impacts on the affected First Nation and Métis communities, the amount of which could be counted toward the participating community's equity contribution?

10. For those who propose to have or have equity participation with First Nation or Metis partners, how do you anticipate this participation will affect your credit rating, if at all?

11. With respect to First Nation and Métis participation issues, please identify any First Nation and Métis communities you have initiated contact with, those you have met with, and those you have existing arrangements to meet with.

12. Does your Consultation Plan treat engagement with First Nations and Métis communities, whose traditional territories will be crossed by the proposed East-West Tie route, on an equivalent basis? Where there are differences in the proposed engagement between First Nations and Métis communities please explain and provide justification for the difference.

13. Please outline and provide examples of relevant experience the applicant has in undertaking procedural aspects of consultation with Métis communities in the context of the development, construction or operation of a transmission line or other large scale construction projects.

14. Is the applicant or any of its affiliates/ partners aware of any outstanding claims, applications, reviews or other proceeding brought against it (them), as transmitter or otherwise, by a First Nation or Métis community who disputes the use or

proposed use of land, including disputes related to consultation or accommodation, compensation, mitigation, remedial measures, or other similar claims? If so, please identify and describe.

15. Has your proposed design has been utilized successfully in terrain and weather conditions similar to that of Northern Ontario? If not, please comment on the potential risks of your proposed design with respect to its use in Northern Ontario.

16. To the extent that your application includes a tower design not typically used in Ontario, please indicate whether the construction schedule in your application includes time for testing of new tower designs.

17. The necessity for the requirement at paragraph 3.6.4 of the Board's Minimum Technical Requirements has been questioned. Please comment on the risk of single loop galloping and the cost of meeting the Board's requirement.

18. In your proposed design for the line, are there any space limitations that would restrict the ability of workers to maintain the new line?

19. Different tower structures, foundations, tower spacing, etc. were proposed in the various applications. What were the applicant's design assumptions (e.g. right-of-way spacing from Hydro One Networks Inc. ("HONI")'s assets, tower height, span length, foundation, etc.) to avoid any adverse impact to HONI's transmission system, including: (i) in the event of a catastrophic failure of the proposed new line; and (ii) access by HONI to the existing transmission line for routine maintenance and service restoration?

20. With respect to the construction, operation and maintenance of the new transmission line, what were the applicant's assumptions to avoid any adverse impact to HONI's transmission system, including: (i) in the event of a catastrophic failure of the proposed new line; and (ii) access by HONI to the existing transmission line for routine maintenance and service restoration?

21. The Independent Electricity System Operator ("IESO") indicates that the double-circuit line described as the Reference Option has several benefits over the single-circuit option. These include:

- a higher thermal rating (up to about 800 MW) that can be exploited for future expansion by adding more voltage control or compensation equipment;
- a higher level of reliability because of its inherent redundancy (2 circuits to one, a lower exposer to common-mode failures, more flexibility to perform line and terminal maintenance);
- less reliance on voltage control and compensation equipment, and special protection systems;
- less electrical equipment involved and less risk of equipment failure; and
- a higher level of operating security as described in section 16 of the IESO's August 2011 Feasibility Study.

Are there any beneficial attributes of the single-circuit option, other than reduced cost? Are there other benefits of the double circuit line that are not listed above?

22. The IESO suggests that to assess whether a proposal will satisfy IESO reliability criteria at the required transfer level, some characteristics for proposals must be available. What is the a.c. resistance (at 20°C), reactance and susceptance (i.e. R, X, B) for each circuit of the Wawa to Marathon and Marathon to Lakehead sections of the new line(s)?

23. In the IESO Feasibility study of August 2011, the IESO indicates that it assumed a route length of approximately 400 km, and used electrical circuit parameters representative of that length of route. For transmitters proposing alternative paths that vary 40 km or more in length from the reference 400 km, please comment as to whether the change in length will materially alter the electrical parameters of the line and whether the targeted transfer capability can still be achieved.

24. For transmitters proposing to use 230 kV class equipment, please indicate whether the design you propose will be capable of continuous operation up to 250 kV as required by the IESO's Market Rules.

25. Please describe any differences between the inputs that went into the Feasibility Study on record and your proposed design.

26. Please complete the following three tables to enhance cost comparability between applications. Applicants should provide the cost estimates based on their preferred option for the line. Where the preferred option is not the reference option, the tables should also be provided for the reference option.

In completing the tables, please assume the following:

- All figures should be stated in 2012 dollars, without escalation in labour, materials or other costs.
- The development phase ends with the filing of a leave to construct application with the Board
- Taxes and duties should be excluded.

Development Activity	**Estimated Cost**	**Reference in filed application**
Engineering, design, and procurement activity		
Materials and equipment		
Permitting and licensing		
Environmental and regulatory approvals		
Land rights (acquisition or options), including consultation and negotiation with landowners		
First Nation and Métis participation (direct and indirect costs, including impact mitigation if applicable)		
First Nation and Métis consultation		
Other consultation (community, stakeholder)		
IDC or AFUDC (if included in estimates)		
Contingency		
Other (explain in detail)		
Total		

Construction Activity	**Estimated Cost**	**Reference in filed application**
Engineering, design, and procurement activity		
Materials and equipment		
Permitting and licensing		
Environmental and regulatory approvals		
Land rights (acquisition or options), including consultation and negotiation with landowners		
First Nation and Métis participation (direct and indirect costs, including impact mitigation if applicable)		
First Nation and Métis consultation		
Other consultation (community, stakeholder)		
Site clearing and preparation		
Construction		
Site remediation		
IDC or AFUDC (if included in estimates)		
Contingency		
Other (explain in detail) e.g. CWIP		
Total		

Operations and Maintenance Activity	**Estimated Cost**	**Reference in filed application**
Major activities (please list, but cost estimate may be bundled)		

Administration and general costs related to O&M		
Regulatory costs		
Contingency		

27. a) Please confirm that while costs may be reaggregated into the specified categories, the amounts in the tables are consistent with the overall estimates filed in your application.

    b) Please reconcile each of the development, construction and operation phase totals produced in the tables with the total costs for each of these phases put forward in your application. The reconciliation should describe and quantify each reconciling element.

28. For each phase, please describe how the contingency amounts were determined.

29. With respect to operation, maintenance and administration costs, please indicate whether the applicant's stated OM&A costs are estimated on a standalone basis (i.e. the full OM&A costs of the line) or on a net basis **(i.e.** excluding costs incurred by affiliates or other regulated utilities providing services to the applicant**).** If on a net basis, please provide in detail the applicant's estimated OM&A costs on a standalone basis.

30. With respect to the provision of services by HONI:
    a) What specific services were assumed in the application?
    b) What were the assumed associated costs?
    c) In the absence of any input from HONI, on what basis were these assumptions made?
    d) What is the impact on the application if the assumed services are not provided by HONI as envisioned by the applicant?

31. With respect to the use, modification or expansion of HONI's stations:
    a) What specific uses, modifications or expansions were assumed in the application?
    b) What were the assumed associated costs?

c) In the absence of any input from HONI, on what basis were these assumptions made?
d) What is the impact on the application if the assumed uses, modifications or expansions do not proceed as envisioned by the applicant?

32. Please complete the following tables, detailing all transmission projects greater than 100 km in length, undertaken by the applicant, its partners, shareholders, affiliates, or any other entities which the applicant is relying on for the purposes of its application, in the past 10 years in all jurisdictions. Please provide the reasons for the budget and schedule variances for each project.

a. Budget Variance Table

Name of project	Details of project	Budgeted cost	Stage of process at which budget created	Actual cost	Variance	Reason for variance

b. Schedule Variance Table

Name of project	Details of project	Estimated development and construction time	Stage of process at which time estimate made	Actual development and construction time	Variance	Reason for variance

Questions for AltaLink Ontario L.P ("ATL"):

1. With respect to AltaLink Alberta's partnership with the Piikani and Blood First Nations, what is the governance structure of the resulting entity?

2. ATL has developed draft Terms of Reference and study plans for the individual EA study components. To what extent, if any, were First Nation and Métis involved in the development of these documents and how was their input taken into account?

3. In paragraph 58 of page 20 of its designation application, ATL suggests that certain First Nations and Métis communities have provided input that informed ATL's First Nations and Métis participation framework. Please clarify which First Nations and Métis communities provided the input regarding ATL's participation framework cited at Pages B-20-22 of ATL's designation application.

4. What is the location of the Control Centre that ATL proposes to use?

5. ATL states that it may use a mix of H-Frame wood pole structures and steel lattice towers.
   a) Please indicate how many H-Frame wood pole structures ATL has assumed in estimating construction costs in its application.
   b) Does this estimate include the potential cost of the wider right-of-way that may be required for H-frame towers?
   c) What is the estimated savings of using the alternative H-Frame Structure design along certain areas of the proposed route?

6. In paragraph 235 of Page B-92 of its designation application, ATL states that "[s]crew-piles can accommodate a broad range of soil types and terrain features." In Appendix 13, the study area is described as being in the Cambrian Shield, dominated by shallow soils and granite bedrock. Please provide examples of the successful use of screw-pile foundations in terrain dominated by shallow soils and granite bedrock.

7. Please provide the costs already spent by ATL for the preparation of its application.

8. At Exhibit A, pages 40 – 41, ATL discusses an innovative tariff alternative. Please provide a preliminary estimate of the increased cost of capital required to implement the innovative tariff alternative.

9. ATL, at paragraph 308 of the application, suggests as a second option for construction cost risk allocation a target price for construction costs that would be negotiated. With whom would ATL negotiate this target price?

10. At paragraph 309 of the application, ATL suggests a third option for construction cost risk allocation that would involve the determination of a lump sum fixed price. Does ATL have a proposal at this time as to how this lump sum would be determined?

11. ATL proposes two cost sharing options for construction costs, and states that each such proposal "would have associated premiums over the cost of service approach to compensate for the transfer of risk". Please provide indicative premiums for each of the two cost sharing options suggested, and explain the assumptions underlying the indicative premiums provided.

Questions for Canadian Niagara Power Inc. ("CNPI"):

1. For each of the projects listed as an example of the applicant's relevant project experience at pages 32 - 37, please specify whether applicant served as the project manager and indicate the roles of employees of each of Fortis and CNPI in project execution.

2. Please provide a copy of the completion report for the Okanagan 230 kV transmission project.

3. CNPI states that Fortis has sufficient capital resources under its $1 billion committed revolving corporate credit facility to finance the development and construction of the project. When does the credit facility expire? How much money will be available to finance the development of the project under that credit facility?

4. With respect to the Lake Huron Anishinabek Transmission Company, please outline the governance structure.

5. In its evidence at Part B, page 147, CNPI indicates that it discovered some slight variance to the list of "Crown-identified communities" provided by the OPA. What is this "slight variance"?

6. CNPI states that it will not develop a new tower series for this project, but will modify the existing tower series. Has CNPI considered prototype testing for modification of the existing tower series? If not, why not? If it has, please explain.

7. On page 137, line 24, CNPI states "CNPI's proposed route for the line is for construction primarily adjacent to the existing double circuit HONI Wawa TS to Lakehead TS 230kV line". On page 138, lines 1 to 13, CNPI states that it "was tentatively considering an entirely new corridor from Marathon to Wawa", but after conducting a fly over now confirms "the consideration of the alternate route". Please describe what CNPI refers to as the "entirely new corridor" and the "alternate route" and elaborate on what CNPI's proposed route will likely be (subject to "detailed environmental evaluation and engineering design" as stated on page 138, lines 7 and 8).

Questions for EWT LP:

1. Regarding Bamkushwada LP, please outline the governance structure.

2. EWT LP has secured a 1/3rd equity partnership with Bamkushwada LP ("BLP"). BLP consists of six directly affected First Nations communities. Are the participating First Nations in BLP bound by an exclusivity clause that restricts the ability of other applicants from developing similar participation relationships, either before or after designation? In the event that EWT LP is not designated by the Board, can you advise whether or not the entity that is designated will be able to consult with the participating First Nations in BLP immediately after the Board issues its designation decision?

3. At what stage in the development process will EWT determine whether a single circuit line using CRS structures is the preferred alternative?

4. Does EWT LP consider its CRS option to be identical to any of the single circuit options considered by the IESO in its August 18, 2011 Feasibility Report? If so, which one?

5. The IESO in its Feasibility Study IESO_REP_0748 compares the relative merits of a new high-capacity single-circuit line versus a new double-circuit line with respect to a one-plus-one contingency. The Study describes control actions (e.g. generation dispatch, load rejection, increased transfers) , which would be necessary in the event of a second single-element contingency after experiencing an initial single-element contingency or outage if the new line is a single circuit line.

   a) Can EWT LP provide any evidence that the IESO, the OPA or EWT LP determined the availability of the control actions noted in IESO_REP_0748?

   b) Can EWT LP provide any evidence that the IESO, the OPA or EWT LP determined the annual cost of the control actions noted in IESO_REP_0748 (up to 300 MW additional generation or import, or some lesser amount of generation/import for armed load rejection up to 150 MW)? If yes, and assuming that the economic analysis is conducted over a 50 year period, what is the total cost?

6. EWT LP references the reconfiguration or retirement of existing circuits between Thunder Bay and Nipigon. In regards to the proposed reconfiguration or retirement:

   a) What impact will the reconfiguration or retirement of these existing circuits have on the IESO controlled grid?

   b) Did EWT LP consult the IESO and/or HONI with respect to the reconfiguration or retirement of these existing circuits? If so, what did the IESO and/or HONI advise EWT LP about the option?

   c) Is the option of reconfiguring or retiring these existing circuits available to any proponent the Board designates?

7. Are the costs associated with the conversion of EWT LP's single circuit design to a 500kV circuit included in the cost estimates set out in the application?

8. What limitations does a compact design of 6m between phases pose on the ability of workers to complete maintenance on live lines?

9. Please confirm if EWT LP's project schedule, land acquisition plan, environmental assessment plan and permitting plan, as these are set out in its application, apply equally to the three alternative route options.

10. To what extent will existing land rights that are currently held by one of the entities in the Hydro One group of companies be utilized or shared by EWT LP? If land rights that are held by these companies are utilized or shared by EWT LP, will the existing agreements that govern the existing rights (for example, land use permits issued by the Crown), need to be renegotiated or changed? If yes, will EWT LP reimburse the relevant utility or company in respect of any associated incremental costs? Is this cost included in EWT LP's application and, if so, where?

Questions for Iccon Transmission Inc. and TransCanada Power Transmission (Ontario) LP (“Iccon/TPT”):

1. Please provide copies of the most recent credit rating reports for each of:
   - TransCanada
   - TransCanada Pipelines Limited
   - Isolux Corsán Concesiones S.A.U.
   - Isolux Ingeniería.

2. Please provide a copy of TransCanada’s Aboriginal contracting strategy.

3. Please provide a sample copy of a TransCanada Protocol Agreement.

4. Please indicate whether and, if so, where the time to apply for and obtain pre-construction permits is accounted for in Iccon/TPT’s project schedule.

Questions for RES Canada Transmission LP ("RES"):

1. At page 4 of Exhibit E, Tab 5, Schedule 1 of its designation application, RES describes the Energy Gateway Transmission Expansion Program (including the Populus to Terminal Project, the Mona Oquirrh Project, the Sigurd to Red Butte Project, the Gateway West Project and the Gateway South Project) as representative of the MidAmerican Group's development experience. For these five projects, was the development and design of the overhead lines undertaken by MidAmerican's internal staff or by external consulting engineers under MidAmerican's direction?

2. Does MidAmerican expect to be continuing development and engineering work on the Energy Gateway Transmission Expansion Program and other major projects contemporaneously with development of the proposed East-West Tie project?

3. For the projects in the Energy Gateway Transmission Expansion Program, please indicate whether each of the following was undertaken or led by the Bureau of Land Management of the US Department of the Interior or by MidAmerican:
   - the preparation of the environmental analyses and the preparation and publication of the Environmental Impact Statement(s);
   - consultation - including mailing of material to the public, publication of notifications in the newspapers, and hosting of public open houses;
   - coordination with local, state and federal governments and cooperating agencies; and
   - the selection of the preferred alternative(s).

4. Please provide copies of the most recent credit rating reports for each of:
   - MidAmerican Energy Holdings Company
   - Berkshire Hathaway Inc.

5. On page 8 of Exhibit M, Tab1, Schedule 1 of its designation application, RES states that some aspects of the Bruce-Milton MOU signed between the Minister of Energy and Hydro One would not necessarily be applicable to RES Transmission. Please explain which aspects of the Bruce to Milton MOU RES considers inapplicable to RES Transmission.

6. Do the Project Execution Chart and dates shown in Exhibit N, Tab 1, Schedule 2 apply to the reference option? RES's preferred option? Or both?

7. Please provide the charts on pages 3-6 of Exhibit P Tab 4 Schedule 2 in an excel spreadsheet so that it is clearly visible to the reader (the pdf version is not large enough to clearly read).

8. The IESO in its Feasibility Study IESO_REP_0748 compares the relative merits of a new high-capacity single-circuit line versus a new double-circuit line with respect to a one-plus-one contingency. The Study describes control actions (e.g. generation dispatch, load rejection, increased transfers) , which would be necessary in the event of a second single-element contingency after experiencing an initial single-element contingency or outage if the new line is a single circuit line.

   a) Can RES provide any evidence that the IESO, the OPA or RES determined the availability of the control actions noted in IESO_REP_0748?

   b) Can RES provide any evidence that the IESO, the OPA or RES determined the annual cost of the control actions noted in IESO_REP_0748 (up to 300 MW additional generation or import, or some lesser amount of generation/import for armed load rejection up to 150 MW)? If yes, and assuming that the economic analysis is conducted over a 50 year period, what is the total cost?

9. Did the IESO study the same One-plus-One contingency, also known as an N-1-1 contingency, in the REP-2 feasibility study conducted on behalf of RES Canada that it studied in IESO_REP_0748? If yes, then please produce this study. What are the IESO's conclusions regarding the requirement for control actions as noted above after the loss of the new single circuit line (within the 30 minutes allowed to adjust the system prior to the second event in the N-1-1)?

10. Diagram 32 of the Feasibility Study in Exhibit I – Tab 2 of the RES Submission shows a voltage stability limit of 685MW for transfers across the EW-Tie Interface following the most onerous contingency which would involve losing both circuits of the *existing* double-circuit line between Wawa TS and Marathon TS. Diagram 8 of the IESO's Feasibility Study of August 2011 shows a voltage stability limit for the *Reference Case* of 686MW for transfers across the EW-Tie Interface following the loss of both circuits of the *new* double-circuit line between Wawa TS and Marathon TS.

Please explain how your Preferred Design 'has superior electrical performance attributes' when its EW-Tie transfer capability would be virtually identical to that of the Reference Case, but would require both a higher-rated SVC at Marathon TS, and post-contingency switching of the tertiary-connected reactors at Marathon TS to achieve this transfer.

11. Station layouts in IESO Feasibility Study REP-2 (Tab H-2-3 Figure 2, Figure 3, and Figure 4) had at least three diameters at Wawa, Marathon, and Lakehead. In the RES *Preferred Design*, ring-bus arrangements (i.e. two diameters) are presented for Wawa, Lakehead, and Marathon (Exhibit G Tab 3 Schedule 1, Exhibit H Tab 4 Schedule 4, and Exhibit H Tab 4 Schedule 5). These ring-bus layouts have weaker post-contingency configurations than those assessed by the IESO. In addition, the RES layouts do not cater for additional shunt elements at Marathon and Lakehead so post-contingency equipment configurations cannot be assessed. Without adopting the station layouts in IESO Feasibility Study REP-2, the corresponding transfer capabilities identified in this study have not been confirmed by the IESO.

    Please comment on whether the ring bus layouts presented for the RES Reference and Alternatives will be equivalent or superior to either the Reference or Alternative Options in the IESO Feasibility Study of August 2011.

12. In IESO Feasibility Study REP-2 conducted by the IESO for RES, the series compensation was modelled as split equally at both terminal stations. The 40% series compensation for the Wawa-Marathon circuit was modelled with 20% compensation at each of the Wawa and Marathon terminals. The 50% series compensation for the Marathon-Lakehead circuit was modelled with 25% compensation at each of the Marathon and Lakehead terminals. The RES *Preferred Design* puts all series compensation at Marathon.

    Without using the series capacitor arrangement presented in the IESO Feasibility Study REP-2, what evidence supports the statement that the RES *Preferred Design* is equivalent or superior to either the Reference or Alternative Options in the IESO Feasibility Study of August 2011?

13. Please confirm that RES proposes to receive a return on CWIP during the construction phase, in line with the EB-2009-0152 Report of the Board dated January 15, 2012. Please provide a forecast of the costs to ratepayers on an

annual basis to fund a return on CWIP during the construction phase of RES' planned East-West Tie line as compared to the costs to ratepayers under the Board's standard rate setting methodology.

14. In paragraph 38 on page 15 of Exhibit B, Tab 1, Schedule 1 of its designation application, RES states the following:

    The Applicant is also requesting that the OEB vary its usual methodology that prescribes interest rates for approved regulatory accounts (except for Construction Work in Progress ("CWIP" accounts)... The Applicant is requesting that …the OEB approve a blended debt/equity rate as follows: the sum of the ROE determined by the Board annually, on 40 percent of development expenditures, and the lesser of the deemed short-term debt rate (determined by the Board annually) or the Board-approved "interest during construction" rate, on 60 percent of development expenditures. The ongoing balance associated with this accrual would be tracked separately on the Applicant's financial statements.

    Please provide the incremental cost to ratepayers of the revised interest rate requested by RES.

15. In Exhibit P/Tab 5/Schedule 1/pages 7-12 and Exhibit P/Tab 7/Schedule 1, RES proposes an "incentive rate methodology that rewards RES for completing the development and construction of the Project for less than its Bid Amount and penalizes RES for exceeding the bid amount …"

    The methodology described appears to pertain only to the first year (i.e. determination of the initial rate base and the corresponding revenue requirement).

    a) Please confirm whether this interpretation is correct.

    b) RES' proposal in these exhibits discusses the treatment of prudently incurred cost overages or underages. Is RES proposing that there would be an annual review or other process whereby the Board would review and approve the allowed rate base, underages and overages, and exceptions, and hence the annual revenue requirement?

16. On page 18 of Exhibit B, Tab 1, Schedule 1 of its designation application, RES proposes "…an incentive rate methodology that rewards RES Transmission for

completing the development and construction of the Project for less than its Bid Amount…".

a) Please clarify whether the incentive return on equity of 300 bps sought by RES is pre-tax or post-tax.

b) Please clarify whether the *Subtracted Amount* is a fixed amount or an amount that amortizes over the approved life of the asset.

c) Please clarify whether any approved overage is a fixed amount or an amount that amortizes over the approved life of the asset.

d) In its worked example Case 2, RES asserts that the incentive scheme provides an "Annual saving to customers" of $0.3 million. Please provide calculations for:

> i) the forecast actual amount payable by ratepayers in the first year if the RES incentive scheme were implemented using the assumptions set out in Case 2;
>
> ii) the forecast actual amount payable by ratepayers in the first year for the same total actual spend were the line to have been built under the existing cost of service rate making methodology;
>
> iii) the cost increase/reduction to ratepayers by adopting RES' proposed incentive scheme; and
>
> iv) a comparison of the value calculated in (iii) above to the $0.3 million "Annual saving to customers" stated in Case 2.

e) in its worked example Case 3, RES asserts that the incentive scheme provides an "Annual saving to customers" of $0.7 million. Please provide calculations for:

> i) the forecast actual amount payable by ratepayers in the first year if the RES incentive scheme were implemented using the assumptions set out in Case 3;
>
> ii) the forecast actual amount payable by ratepayers in the first year for the same total actual spend were the line to have been built under the existing cost of service rate making methodology;

iii) the cost increase/reduction to ratepayers by adopting RES' proposed incentive scheme;

iv) a comparison of the value calculated in (iii) above to the $0.7 million "Annual saving to customers" stated in Case 3; and

v) the net present value (NPV) of the cost increase/reduction to ratepayers calculated in (iii) over the lifetime of the asset discounted at the Board approved weighted average cost of capital. Please adjust the NPV calculation to include the incremental cost to ratepayers of CWIP and AFUDC and the appropriate allowances for corporate income tax.

Questions for Upper Canada Transmission Inc. ("UCT"):

1. Please provide full and complete organization particulars of NextBridge Infrastructure LP, including a listing of all limited partners and their respective interests in NextBridge Infrastructure LP.

2. Please provide copies of the most recent credit rating reports for each of:
   - NextEra Energy Capital Holdings
   - Enbridge Inc.
   - Borealis Infrastructure Management.

3. On Page 60, UCT states that Florida Power and Light has a "customer service reliability which was 99.98% in 2012". How is this derived? For example, is this a customer survey or an industry recognized index?

4. NextBridge's tower design proposes the use of 16 km spacing for dead end towers to limit cascading. Please explain whether this spacing conforms to good utility practice and is otherwise prudent given the potential for extreme weather conditions across this part of northern Ontario.

5. Are the tower clearances shown at Tab 6, page 90, in conformance with the prescribed galloping requirements in the Board's Minimum Technical Requirements? If so, please explain.

6. What limitations does a compact design of 6m between phases pose on the ability of workers to complete maintenance on live lines?

7. Indicate whether, and if so where, the time to apply for and obtain pre-construction permits is taken into account in UCT's schedule.

8. Please advise whether the reference at page 9 of the Introduction to alternative forecasts for construction costs purported to offer construction cost reductions ranging between 25% to 30% are the same alternatives evaluated in Appendix 11 of UCT's application.

9. UCT has proposed that it may be appropriate to consider a similar concept to the current OPA Feed-in-Tariff Program 'First Nation and Métis Adder'. Please provide greater details about how such a program would work in the context of

transmission of electricity. Please provide examples to illustrate the proposed concept.

10. Please provide a forecast of the costs to ratepayers on an annual basis to fund a return on CWIP during the construction phase of UCT's planned East-West Tie line and compare this to the costs to ratepayers under the Board's standard rate making approach.

11. UCT indicates in section 5.8 of the application:
"…Nextbridge also intends to develop with its Ontario stakeholders a performance-based ratemaking construct. This construct could be viewed as a form of project-specific return on equity incentive, in line with the OEB's Infrastructure Investment Policy."

Please confirm that under whatever performance-based rate making construct UCT ultimately proposes:

a) UCT would seek a rate of return on common equity ("ROE") of 10 percent, if the total project capital cost is less than the budgeted capital cost; and

b) UCT would seek an ROE of 9 percent if the total capital cost of the project exceeds the budgeted capital cost.

APPENDIX B

INTERVENORS REPRESENTING LOCAL INTERESTS

- BayNiche Conservancy
- Lake Superior Action-Research-Conservation
- Métis Nation of Ontario
- Municipality of Wawa and the Algoma Coalition
- National Chief's Office on behalf of the Assembly of First Nations
- Nishnawbe-Aski Nation
- Northwestern Ontario Associated Chambers of Commerce, Northwestern Ontario Municipal Association and the City of Thunder Bay (NOACC-NOMA)
- Northwatch
- Ojibways of Pic River First Nation