ONTARIO ENERGY BOARD STAFF PROPOSED INTERROGATORIES

EAST-WEST TIE LINE DESIGNATION PROCEEDING

EB-2011-0140

A. Proposed questions for all applicants:

Proposed design

1. Some applicants have proposed an option for a single circuit transmission line in addition to the reference option, which is for a double circuit transmission line. The option of a single circuit transmission line was described in the IESO's Feasibility Study dated August 18, 2011.

   With respect to the single circuit option, the IESO states the following on pages 30-31 of the feasibility study:

   > *All of the criteria produced by NERC, NPCC & the IESO refer to a requirement to respect a second single-element contingency after experiencing an initial single-element contingency or outage, with control actions taken between the two events to adjust the flows.*
   >
   > *The IESO's planning criteria require any control actions to re-prepare the system for a subsequent contingency be implemented within the 30 minute period following an initial contingency.*
   >
   > *The IESO's criteria for determining the adequacy of any plans to reinforce the transmission system also limit the maximum loss to two elements, either simultaneously or with one loss following another.*
   >
   > *With the East-West Tie reinforced with a single-circuit line, the criteria require that, following the loss of the new single-circuit line, control actions be implemented to prepare the system for the loss of one of the circuits on the remaining double-circuit line.*
   >
   > *Following the loss of the new single-circuit line, the system configuration for the section affected by the fault would revert to the present arrangement, for which the transfer capability is approximately 350MW, when respecting the loss of only a single circuit.*
   >
   > *Since the targeted transfer capability of the reinforced East-West Tie is 650MW, a reduction to 350MW following the loss of the new single-circuit line would therefore require, as a control action, either the dispatch of additional generating resources totalling at least 300MW, or a lesser amount if there were also the capability to arm load rejection of up to 150MW in response to the second contingency. An increase in the transfers via the Interconnections*

with Manitoba and Minnesota would also allow the amount of generation capacity that would need to be dispatched to be reduced.

Reinforcing the East-West Tie with a new double-circuit line would therefore offer a higher level of security since, from the planning perspective, the initial loss of the two elements of the double-circuit line would provide acceptable performance, in accordance with the prevailing standards, while requiring no control actions to be taken following the initial loss of either of the double-circuit lines.

Please comment on the relative merits of a new single circuit line versus a new double circuit line in light of the above-noted comments from the IESO. You may also wish to comment on whether there are any advantages or disadvantages (including any differences in costs or reliability) relating to the operation of the line resulting from the choice of single or double circuit configuration.

2. Several applicants propose tower designs or tower foundation designs not typically used in Ontario. Please comment on the technical superiority (or inferiority) and cost effectiveness of these designs. Please address as applicable:
   - Experience with such towers or tower foundations in similar terrain and environmental conditions;
   - Longitudinal or torsional load issues;
   - Enhanced lightning protection; and
   - Impact of tower design or tower foundation design on requirements for right-of-way width and cleared right-of-way width, and the cost consequences of such requirements.

3. 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.

4. Upon what right of way clearing width is your application premised?

5. 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.

Schedule

6. Based on the applications filed, the proposed in-service dates for the transmission line range from December 2017 to Q4 2019. Please comment on the feasibility and additional cost of meeting a December 2017 in-service date if that became a requirement.

Costs

7. Board staff recognizes that some aspects of construction costs may be difficult to estimate at this time. Using your best estimation, please complete the chart below in 2012 Canadian dollars, assuming an inflation rate of 2%:

Construction Activity	Costs
First Nation and Métis participation	
First Nation and Métis consultation	
Other consultations	
Land rights acquisition	
Environmental and regulatory	
Engineering and design	
Permitting and licensing	
Project management	
Materials and procurement	
Financing and legal	
Site preparation and clearing	
Construction	
Other direct costs (if any)	
Other indirect costs (if any)	
Interest costs during Construction	
Contingency	
Total construction cost	
Accuracy of total estimated cost (± __%)	

8. At what level of project definition is your proposed project at this time (please express as a percentage)?

B. Proposed questions for individual applicants

Questions for AltaLink Ontario LP ("AltaLink"):

1. AltaLink states that it may use a mix of H-Frame wood pole structures and steel lattice towers. Please indicate how many H-Frame wood pole structures AltaLink has assumed in estimating construction costs in its application. Does this estimate include the potential cost of the wider right-of-way that may be required for H-frame towers?

2. AltaLink, 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 AltaLink negotiate this target price?

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

Questions for EWT LP:

1. The last paragraph on page 1 of Exhibit 6, Proposed Design, Appendix 6A, *Reference Option Report* provides cost estimates of $395 M and $352 M for the reference option depending on whether an adjustment to the galloping criteria is made. Table 8.2 on pages 22 and 23 of Part B, Exhibit 8, Costs indicates a construction cost of $427 M for the reference option. Please explain the difference in the numbers.

2. Please clarify the conductor selection used for estimating the CRS option.

3. 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?

4. For the single circuit option proposed, please identify where in your application the information sought in section 8.8 of the Board's Filing Requirements has been provided.

5. The Board's Minimum Design Criteria for the Reference Option (Appendix A to the Minimum Technical Requirements) in Table 15 specified the minimum right of way width as "50 m for Greenfield construction fully on easement (for estimating purposes)". As per clause 2.1.5 of the Minimum Technical Requirements, please identify where in your application you provide evidence as to the equivalence or superiority of the proposed 40 m right of way cleared to 30m.

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

1. 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?

2. Ref: Exhibit P/Tab 5/Schedule 1/pages 7-12, Exhibit P/Tab 7/Schedule 1

   In these exhibits, 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?

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

1. 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?