

**Board Staff Interrogatories  
Leave to Construct  
Toronto Midtown Transmission Reinforcement Project  
EB-2009-0425**

**Interrogatory #1**

**Reference:**

- 1) Exhibit B/Tab 1/Schedule 4/Page 1
- 2) Exhibit B/Tab 1/Schedule 4/Page 4 and 5/Paragraph 3

**Preamble:**

There is an inconsistency in references 1 and 2 in the way the line L14W is shown. Reference 1 shows the line between Birch Junction as dotted (underground), whereas reference 2 shows it as solid (overhead).

**Question/Request:**

- a) Please indicate which is correct and
- b) Provide a corrected map or schematic as appropriate.

**Interrogatory #2**

**Reference:**

- 1) Exhibit B/Tab 1/Schedule 4
- 2) Exhibit B/Tab 6/Schedule 5/Page 17

**Preamble:**

In regard to the need for the development part of the project, Reference 1, page 4 indicates that: "the load forecast is the latest load forecast information from Toronto Hydro...[CDM programs] are contingent upon funding...such CDM initiatives in the Midtown area will not entirely alleviate the overloading and address future long-term load growth in the area."

The summary table (reference 2) on key issues indicates that: "while Toronto is conserving electricity...the proposed undertaking is still necessary...Energy conservation would not be enough to solve the capacity issue".

**Question/Request:**

- a) Provide a copy of Toronto Hydro's CDM impact study on load in the Midtown area.
- b) Provide the relevant factor inputs for reference 1, page 5 "Table 1\_ Area Load Forecast" from Toronto Hydro's study.
- c) Indicate the degree of certainty of implementation of these CDM projects, and the degree of certainty /confidence that 27MW of capacity deficiency by 2018 will be attributed to CDM. Also indicate whether more load growth could be met by conservation and/or energy efficiency initiatives.
- d) For each of the years 2004 through 2009 please provide a table similar to Table 1- Area Load Forecast with the actual load detail and the allowance for extreme

weather and add rows indicating the number of hours during which the corridor limit was exceeded, and the number of times the corridor limit was exceeded.

- e) What is the date of the most recent THESL load forecast study that is being used, and does it reflect the economic downturn? Please provide this report.
- f) Indicate what reliability was achieved for supply to the Dufferin and Bridgman Transformer Stations?
  - a. How many times and for what duration has a single contingency occurred in the period 2004 to 2009?
  - b. How many of those times was the loading exceeded on the Leaside or Wiltshire interface, or any of the components as a result of such contingencies?
- g) Are the terminals at Leaside and Wiltshire equally rated on each of the circuits L13, L14 and L15? What is each of their ratings?

### **Interrogatory #3**

#### **Reference:**

- 1. Exhibit B/ Tab 6/Schedule 3/SIA dated August 11, 2009, with IESO cover letter dated February 2, 2010 granting conditional approval
- 2. Exhibit B/ Tab 6/Schedule 3/SIA Addendum dated January 25, 2010.
- 3. Exhibit B/Tab 1/Schedule 4 page 8, lines 9-13.

#### **Preamble:**

The IESO in reference 2 at page 1 advises that

- 1. "under extreme weather peak loads forecasts for years 2010-2025 the loadings with all elements in service on the Leaside to Wiltshire circuits remain well below their continuous ratings", and that
- 2. with one element out of service "the loadings remain below the long term emergency thermal ratings for up to and including the year 2025."
- 3. Under extreme weather peak load forecasts and with two Leaside to Wiltshire circuits out of service, resulting from single element contingencies when one circuit is out of service ... A possible mitigating measure to the overloading of the circuits is to open LV breakers ...."

#### **Questions/Request:**

- a) Please reconcile these statements with the statements made at Reference 3 that the need to relieve the overload of facilities makes this project non-discretionary.
- b) Does Hydro One acknowledge that the need for this project arises after 2025?

### **Interrogatory #4**

**Reference:** Exhibit B/Tab 3/Schedule 1/Page 3 and 4

Table 1: Evaluation of Option for Section 1

Table 2: Evaluation of Option for Section 2

**Preamble:**

The above mentioned tables provide a single term e.g. high, moderate, and low in the evaluation of the alternative

**Question/Request:**

- a) Please provide, where available, quantitative data that corresponds to and supports the qualitative entries in the mentioned tables
- b) Please describe more fully the methodology, scales, formulas used to derive these numbers and/or assessments.

**Interrogatory #5**

**Reference:**

Exhibit B/Tab 3/Schedule 1

**Preamble:**

Board staff is seeking more information about the tunnelling and trenching options.

**Question/Request:**

- a) Why is it now not possible to trench across Yonge Street when it was possible just two years ago when the project was included in the EB-2008-0272 rate application? What has changed since the former proposal to make it impossible?
- b) Please indicate the reason for tunnelling to a depth of 60 metres and contrast that with the John x Esplanade tunnel which was constructed in downtown Toronto (EB-2004-0436) where the depth was 20 metres.
- c) What is the depth profile for the tunnel i.e. what would be the depth at various points along the route?
- d) What would be the depth of the tunnel under Yonge Street?
- e) What is the additional cost for having the tunnel at a 20 metre depth rather than the 60 metres proposed? What complications would a tunnel less deep than 60 metres introduce?
- f) Please provide the cost per km for trenching along the CPR line and the cost per km of tunnelling under it.
- g) Would the cable used in underground trenching be the same cable type as used in the underground tunnel? What is the length of cable that would have to be ordered for the two methods? Please identify the cable types and indicate the difference in cable costs for the two alternatives.
- h) Please complete the following table to clarify where the increase in cost estimate arises:

	Original Proposal	Current Proposal	% Increase	Main drivers for increase
Real Estate Costs				
Contingency				
Trench vs. Tunnel				
Construction cost escalation				
Interest				
Overhead charges				
Total project cost	\$56.6 m	\$104.9 m		

### **Interrogatory #6**

**Reference:** Exhibit B/Tab 3/Schedule 1

#### **Preamble:**

The options considered for sections S1 and S2 include either a trench or a tunnel. Board staff requests consideration of a hybrid option.

#### **Question/Request:**

- Please reconstruct the options tables and provide an assessment of an additional hybrid option which would involve trenching in all sections except for the crossing under Yonge Street. For crossing Yonge Street this proposal would involve vertical shafts on either side of Yonge Street (or as close to it as practical), and joining the bottom of the shafts through conventional mining techniques. The depth of the shafts would be of the order of 20 metres. Alternative means could be proposed by Hydro One.
- Provide an estimate of the total cost of the project for the hybrid option. Provide a comparison table for significant elements of the tunnel, trench and hybrid options, from Leaside TS to Bridgman TS.
- Provide a comparison of public disruption and safety by completing the following table, using qualitative and where possible quantitative descriptors:

	Tunnel	Trench	Hybrid
Quantity and extent of Permanent easement required.			
Surface Road length and area disrupted			
Duration of disruption			
Outages, duration and difficulty in scheduling			
Access, exit and entry ports to tunnel/trench			
Nature of neighbourhood noise effects			
Duration of noise effects			
Trucking and machinery requirements and presence			
Worker and public safety			

- d) Provide information which will assist the Board in understanding the effects on neighbourhood which might need to be considered in justifying incurring additional costs for the more expensive options.

### **Interrogatory #7**

#### **Reference:**

Exhibit B/Tab 6/Schedule 1/Page 3

#### **Preamble:**

The reference indicates that the Environmental Summary Report (“ESR”) will be provided in January 2010.

#### **Question/Request:**

Please

- a) Provide a copy of the ESR report which is indicated as being submitted in January 2010.
- b) Indicate if there are issues identified which might affect the application.

### **Interrogatory #8**

#### **Reference:**

1. Exhibit B/Tab 6/Schedule 1/Pages 3 /Paragraph 4
2. Exhibit B/Tab 6/Schedule 1/Page 4 /Paragraph 7

**Preamble:**

Board staff is seeking information on the Environmental Summary Report. Reference 1 indicates that "Hydro One will confirm the completion of the EA process with the Board once the ESR is filed".

Reference 2 indicates that "... additional requirements may be identified during the EA process...there are also other approvals and permits that may be required as part of the construction process".

**Question/Request:**

- a) Please provide a copy of the ESR when submitted.
- b) Please provide an update on the status of the consultation process for the Draft ESR, indicating whether concerns were expressed by any of the stakeholders.
- c) Please indicate whether at this stage additional requirements on the provincial or federal level have been identified.
- d) Please indicate when Hydro One expects the ESR to be finalized and filed with the MOE.

**Interrogatory #9**

**Reference:** Exhibit B/Tab 6/Schedule 4/Page 1

**Preamble:**

Schedule 4 indicates that "the CIA document will be filed by mid-February 2010".

**Question/Request:**

Please provide a copy of the CIA.

**Interrogatory #10**

**Reference:**

- 4. Exhibit B/ Tab 6/Schedule 3/SIA dated August 11, 2009, with IESO cover letter dated February 2, 2010 granting conditional approval
- 5. Exhibit B/ Tab 6/Schedule 3/SIA Addendum dated January 25, 2010.

**Preamble:**

The documents indicate certain recommendations have been made and that certain information has been requested.

**Questions/Request:**

- c) Please confirm that Hydro One will accept and fulfill those recommendations and
- d) Please confirm that the requested information will be provided.

## **Interrogatory #11**

### **Reference:**

1. Exhibit B/Tab 3/Schedule 1/Page 3 and 4 (Table 1&2)
2. Exhibit B/Tab 4/Schedule 2
3. Exhibit B/Tab 4/Schedule 3/Page 2/line 23

### **Preamble:**

Board staff seeks further information and clarification regarding the required contribution of Capital from Toronto Hydro.

### **Question/Request:**

- a) Was Toronto Hydro a partner in determining the aspects for which they are required to contribute to the project?
- b) Please provide, through Toronto Hydro Electrical System Limited ("THESL"), the information which was submitted by THESL to the Board regarding this project in their most recent Rate Application.
- c) Please confirm that the incremental cost for the tunnel option is of the order of \$36 million as derived from reference 2.
- d) Given the implication of the tunnel option on costs as described in reference 3, please indicate why the tunnel cost is apparently being assigned to the Line Connection pool instead of (partly or fully) as a cost to THESL.
- e) For the section between Bayview Junction and Birch Junction, there are two cables in the tunnel, one for new capacity and one for replacement at end-of-life. How has it been determined that all of the cost of the tunnel should be assigned to the Line Connection pool? Why isn't at least a portion of the tunnel assigned to the customer?
- f) If there were no requirement to increase the capacity for load growth, would Hydro One still build the \$30m dollar tunnel? Would it be cost justified on the basis of System or Local area reliability? Or any other basis?
- g) Please summarise and provide any records of discussion and communications with THESL regarding the cost split between THESL and Hydro One and the respective roles and responsibilities for this project.
- h) Please indicate if the cost responsibility on THESL has been identified in any of the public information centre material or displays, or in bill inserts or newsletters, by either Hydro One or THESL. Please provide such material.
- i) Has the public in the area being served by THESL been made aware of the additional cost consequences of the tunnelling option? Please provide such material.
- j) If a percentage of the cost of the tunnel were to have to be borne by THESL please indicate what would be the HONI cost and the THESL contribution if the percentage assigned to THESL was i) 33% ii) 50% iii) 100%?
- k) Please provide any references and decisions of the Board or Code references on which the Application depends for assigning the costs of the tunnel and cable to the Network Pool.

## **Interrogatory #12**

### **Reference:**

Exhibit B/Tab 4/Schedule 2/Page 1, line 24

### **Preamble:**

Contingencies have been proposed at 25% of the total project cost including the tunnel section. Board staff seeks additional information on the contingency allowance.

### **Question/Request:**

- a) Please confirm that the contingency for the \$44.7 million John x Esplanade project (EB-2004-0436) was \$4 million.
- b) Please confirm that the project for the John x Esplanade tunnel was estimated at \$44.7 million and that it was actually completed at \$38 million.
- c) What experiences in the John X Esplanade, or any similar tunnelling project, contribute to the decision to increase the contingency for the proposed project?
- d) What is the total project cost when a 10% contingency is used?
- e) Confirm that the rate base on which Hydro One will be applying for rate increases will be based on the full amount of the project including the contingency
- f) Does Hydro One expect future rate increases which are sought as a result of this project to occur on the basis of when the project is placed in service i.e. "used and useful"?
- g) Confirm that, if rates are granted on a basis which does not require that the project be used and useful, that ratepayers would be contributing the full amount of the project including the proposed contingency, even if the contingency amount is not required, and that there is no means whereby this would be recovered from the shareholders.
- h) Please provide a justification for the use of a 25% contingency. Compare this contingency level with that of the John x Esplanade figure.

## **Interrogatory #13**

### **Reference:**

Exhibit B/Tab 4/Schedule 3/Page 3/line 17

### **Preamble:**

Board staff is not clear why the replacement of a radial line seen as necessary for the reliability of the Transmission System.

### **Question/Request:**

- a) Please confirm that the disconnect switches in lines L13W, L14W and L15W are normally operated in the open position.
- b) Please explain why the reliability of a radial line is seen as affecting the Transmission System, rather than as a local reliability issue?
- c) If the reliability is a local issue is it not more appropriate that the costs be borne by the local utility rather than being assigned to the line pool?



- d) Please provide information on any reliability issues affecting the current configuration of the lines which contributes to justifying the proposal, including situations where mandatory reliability statistics and measures are not met.

#### **Interrogatory 14**

**Reference:** Exhibit B/Tab 6/Schedule 6/Page 2/Paragraph 1.3

**Preamble:**

The referenced paragraph indicates that “additional temporary construction and working rights will be required...when encroaching on private landowner property...access shafts for tunnel rights-of-way may be located on Hydro One or private land pending final engineering design”.

**Question/Request:**

- a) According to the proposed design, please indicate whether Hydro One foresees any land issues with private landowners. If yes, please describe measures anticipated for dealing with these?
- b) Please indicate the status of easement requirements
- c) Please indicate the difference in effort for the proposed routing, the trenching routing and the hybrid option.

#### **Interrogatory #15**

**Reference:**

Letter of comment from Mr. Steven A. Zakem of Loblaws Properties Ltd. (“Loblaws”) to Mr. Jim Goodfellow, Project Manager Hydro One Networks Inc., dated January 13, 2010

**Preamble:**

There has been some communication between Loblaws and Hydro One requesting that (a) particular tower(s) be relocated.

**Questions/Requests:**

Please

- a) Indicate discussions which have been held in regard to reference 1 and provide copies of such;
- b) Indicate reasons why Hydro One has not been able to accommodate this request;
- c) Indicate any alternative proposals which have been made, and
- d) Indicate the latest status of this matter.

### **Interrogatory #16**

**Reference:**

Letter of March 4, 2010 from Mr. C. Robert Vernon to the Board Secretary, copied to Hydro One

**Preamble:**

The letter writer has expressed concerns about traffic issues and neighbourhood impact, and has suggested that the tower nearest 400 Summerhill Avenue be removed.

**Question/Request:**

- a. Has Hydro One responded to this letter, and if so, please provide the Board a copy of this response.
- b. If Hydro One has not responded to the letter, please provide Hydro One's comments on the concerns and proposals within the letter.

### **Interrogatory #17**

**Reference:** Exhibit B/Tab 6/Schedule 5/Page 12-18/Paragraph 5

**Preamble:** Various community concerns have been identified.

**Question/Request:**

According to the summary of key issues, community concerns have been noted in relation to construction disruption, traffic, noise, vibration, road repairs, please provide further clarification on how Hydro One plans to mitigate these adverse effects, including length of time and quantifiable impact.

### **Interrogatory #18**

**Reference:** Exhibit B/Tab 6/Schedule 5/page 3/3.2 First Nations & Metis Consultation

**Preamble:**

The referenced pages indicate aboriginal consultations which have taken place.

**Question/Request:**

- a) Please provide a status update on consultations with Aboriginal communities with regard to the following points:
  - i) Identify all of the Aboriginal communities that have been contacted in respect of this application.
  - ii) Indicate:
    - i) how the Aboriginal communities were identified;
    - ii) when contact was first initiated;
    - iii) the individuals within the Aboriginal community who were contacted, and their position in or representative role in the community;

iv) a listing, including the dates, of any phone calls, meetings and other means that may have been used to provide information about the project and hear any interests or concerns of Aboriginal communities with respect to the project.

b) Provide relevant information gathered from or about the Aboriginal community concerning their treaty rights, or any filed and outstanding claims or litigation concerning their treaty rights or treaty land entitlement or Aboriginal title or rights, which may potentially be impacted by the project.

c) Provide any relevant written documentation regarding consultations, such as notes or minutes that may have been taken at meetings or from phone calls, or letters received from, or sent to, Aboriginal communities.

d) Identify any specific issues or concerns that have been raised by Aboriginal communities in respect of the project and, where applicable, how those issues or concerns will be mitigated or accommodated.

e) Explain whether any of the concerns raised by Aboriginal communities with respect to the applied-for project have been discussed with any government department or agencies, and if so, identify when contacts were made and who was contacted.

f) If any of the Aboriginal communities who were contacted either support the application or have no objection to the project proceeding, identify those groups and provide any available written documentation of their position. Also, indicate if their positions are final or preliminary or conditional in nature.

g) Provide details of any know Crown involvement in consultations with Aboriginal communities in respect of the applied-for project.

-End of document-