Ontario Energy Board
P.O. Box 2319
27th. Floor
2300 Yonge Street
Toronto ON M4P 1E4
Telephone: 416- 481-1967
Facsimile: 416- 440-7656
Toll free: 1-888-632-6273

Commission de l'énergie de l'Ontario
C.P. 2319
27e étage
2300, rue Yonge
Toronto ON M4P 1E4
Téléphone; 416- 481-1967
Télécopieur: 416- 440-7656
Numéro sans frais: 1-888-632-6273

Ontario

BY E-MAIL

October 1, 2009

Board Secretary
Ontario Energy Board
2300 Yonge Street, Ste. 2700
Toronto ON M4P 1E4

Attention: Ms. Kirsten Walli, Board Secretary

Dear Ms. Walli:

Re: Hydro One Networks Inc.
Distribution Rates Application, 2010/2011
Board File Number EB-2009-0096
Board Staff Interrogatories (List 2)

Please see attached the Board staff interrogatories (List 2) for the EB-2009-0096 proceeding dealing with the September 25, 2009 evidence update regarding the updated Green Energy Plan and the Vegetation Management Study.

Please forward to Hydro One Networks Inc. and all intervenors in this proceeding.

Yours truly,

Original Signed By

Harold Thiessen
Case Manager – EB-2009-0096

BOARD STAFF INTERROGATORIES
HYDRO ONE NETWORKS INC.
2010/2011 ELECTRICITY DISTRIBUTION RATES APPLICATION
List 2 – October 1, 2009

Additional Interrogatories regarding the Vegetation Management and Green Energy Plan evidence updates filed on September 25, 2009

1. GENERAL

Issue 1.1 Has Hydro One responded appropriately to all relevant Board directions from previous proceedings?

3. OPERATIONS, MAINTENANCE and ADMINISTATION COSTS

Issue 3.1 Are the overall levels of the 2010/2011 Operation, Maintenance and Administration budgets appropriate?

Issue 3.2 Is the 2010/2011 vegetation management budget appropriate?

Vegetation Management Benchmarking Study

Exhibit A-15-2/Attachment 1

1. Ref: Exhibit A-15-2/Attachment 1, Section 2.3 "Goals & Objectives of the Benchmarking Study"/p7, 11, 12-13, 18.

   The Study states in part that:
   - *Comparability characteristics should be considered when choosing participants.*
   - *Comparability criteria must be explicitly identified using defined measures.*
   - *Comparison criteria suggested:*
     - *Percentage of lines requiring vegetation management;*
     - *Type of terrain comprising the service territory;*
     - *Differentiations between rural and urban territories;*
     - *System characteristics such as splits between on-road and off-road lines and overhead and underground lines.*

   As noted at page 11, the selected Utilities include only a single Canadian Utility, BC Hydro. On pages 12-13, the selected Utilities 41 and 3 show customers per circuit kilometer above 30, and markedly different from all other utilities and Hydro One's zones. At the bottom of page 12, it is stated that utilities 41 and 3 were retained in the study "given that they substantially met the other comparability criteria". On page 18, utility 41 is indicated as having an average cycle length of one year.

   a) Given the stated selection criteria please provide the reasons why other Canadian utilities' Distribution Systems were not selected/included by CN Utility Consulting Inc ("CNUC") to be part of the group, such as:

- Hydro Quebec's Distribution System;
- Manitoba Hydro's Distribution System;
- NB Power's Distribution System; or
- Saskatchewan Hydro's Distribution System.

b) Please elaborate on the comparability criteria alluded to and how utilities 41 and 3 were assessed as being comparable for inclusion. In particular, if utility 41 has an average cycle length of one year as cited on page 18, does this not suggest environmental parameters (length of growing season, precipitation, fast-growing vegetation) markedly different than that typical in Hydro One's service territory?

c) Coniferous versus deciduous tree coverage is mentioned in the study as one reason underlying greater tree removal and average lower labour hours for Hydro One compared to other sampled utilities. Given this acknowledged environmental difference which affects operational practices, please explain why the study included sampled utilities, including those in southwestern and south-central U.S. while not including Canadian utilities and other utilities in the northeastern and north central parts of the U.S. that may have more similar vegetation patterns as well as other environmental parameters (climate, geography)?

2. Ref: Exhibit A-15-2/Attachment 1/p20

In regard to misinformation in the public domain about herbicides and their impact on the environment, Hydro One has undertaken initiatives including the one reported in the reference, where the CNUC Report states that:

- ***Launched a study and pilot on the usage of herbicides*** *- This study consists of systematic plots that have been set up to test various herbicides, application techniques, and timing alternatives. The most effective techniques and applications will be utilized in the UVM program to improve cost efficiency.*

Please provide a description of the study detailing its scope, methods, approach, phases, and timeline covering formulation and implementation, and when such a study will be available for review.

3. Ref: Exhibit A-15-2/Attachment 1/p21-22

The chart on page 21 indicates that Hydro One spends, on average, fewer labour hours per tree than the sample while chart 22 indicates that the average cost per tree is materially higher than the peer group.

Given that Hydro One's average cycle, at 10 years, is longer than that of most other utilities in the sample group (ranging from 1 to 5 years), it would be expected that more clearing would be required per tree and hence that it would take as long or longer than for peer group utilities. Given that labour hours are shorter, while costs are higher, does this indicate

that there may be differences between Hydro One's operating environment or operational practices that make it different from sampled utilities? Please explain.

4. Ref: Exhibit A-15-2/Attachment 1, Section 4.2.4 Reliability", pages 33-35 and Conclusion, pages 36 – 37

   The study, in regard to its finding on "Reliability" indicated in Section 4.2.4, indicated that:

   - Most utilities report that after safety, the number one reason for operating a UVM program is to ensure reliable electric service to customers.
   - Hydro One's system is very vulnerable to storm activity as is evidenced by the high storm impact on reliability.
   - Given Hydro One's lengthy cycle in comparison to the peer group, these findings are not unexpected and utilities with shorter cycles will naturally perform better.

   The study's concluding remarks on page 37, indicated that:

   - To further improve efficiency, Hydro One needs to reduce its UVM cycle, as it is apparent, through comparisons with peer companies, that Hydro One's cycle is significantly longer than peer utilities and that more frequent treatments will allow Hydro One to get closer to the mainstream of good utility practice.
   - Shorter cycles will reduce costs on a per kilometre basis as less biomass will need to be removed, will improve the control of vegetation and thereby reduce the need for unplanned UVM activity, and will improve the reliability of Hydro One's distribution system.

   a) Given the CNUC report's finding in section 4.2.4, please advise if Hydro One performed analysis with regard to the impact of its distribution system unreliability on costs to its distribution customers. If "Yes", please provide this analysis.

   b) If the answer to a) above is "No", please indicate whether or not such a study can be performed? If "Yes", how long would it take to complete such a study and file it with the Board if so directed?

   c) Does Hydro One intend to implement the findings of the CNUC Report? If so please provide a plan identifying the areas that Hydro One intended to implement absent this study and the additional areas it intended to incorporate in its existing plan along with an implementation timeline.

5. Ref: Exhibit A-15-2/Attachment 1

   In Hydro One's 2008 Cost of Service distribution rate application (EB-2007-0681), Hydro One filed an external Benchmarking study conducted by PA Consulting Inc. as well as an internal study *2008 Vegetation Management Program Review*, Exhibit H/Tab1/Schedule14/Attachment C on the Hydro One's vegetation management. Hydro One's vegetation management, including the longer-than average cycle length and the relationship between costs and cycle length, were highlighted in these studies. There was extensive testing of the evidence of these studies on the record in the previous application. In its Decision with Reasons, the Board stated:

> "Moving to an eight-year cycle is expected to result in improved reliability for the Company's customers.
>
> The Board considers the increased spending associated with this program to be of a nature that brings it outside of a simple application of historic norms driving spending approvals. While the cost is somewhat high, this innovation appears to be justified." [p. 12]

Hydro One indicated its intention to move towards a seven-year average cycle length, while the external and internal studies indicated that a five year cycle length may be closer to "good utility practice" based on comparative utilities and on long run operational efficiencies.

a) Please indicate whether Hydro One believes that the CN Utility Consulting Study filed in this application corroborates the analysis and findings of the earlier studies that a five year average cycle length would seem to be desirable based on good utility practice, cost efficiency and customer reliability. Please explain your position.

b) In the previous application, Hydro One indicated that it was moving from its current average cycle of 10-11 years towards an average cycle length of 8 years, and the Board approved Hydro One's proposed expenses for vegetation management.

   i) As Hydro One's current evidence (Exh C1/Tab2/Sch2/p34) indicates that it is moving to a 7 year cycle by 2011, what are the additional costs of moving to a 5 year cycle, based on its current operations plan and budget?

   ii) Has Hydro One considered the merits of a longer cycle for territory in the North, as it has a shorter growing season? If not, why not?

9. GREEN ENERGY PLAN

Issue 9.1 Does Hydro One's Green Energy Plan meet the Board's filing guidelines and the objectives set out in the Green Energy and Green Economy Act, 2009?

Issue 9.2 Has Hydro One appropriately addressed the Green Energy Plan expenditures in the context of its overall Capital and O&M budgets?

Issue 9.3 Is Hydro One's methodology for allocating Green Energy Plan O&M and Capital costs between the OPA (Global Adjustment Mechanism) and Hydro One appropriate?

Issue 9.4 To what extent should the Board approve any projects or expenditures relating to the Green Energy Plan that are scheduled to occur beyond the test years (i.e. 2010 and 2011) in the current application?

Issue 9.5 What is the Board's role with regard to the approval of the Green Energy Plan? What criteria should the Board use when determining whether to approve the Green Energy Plan? If the Board approves the plan, what are the impacts of that approval?

6. Ref: Exhibit A/Tab14/Sch2/p3
   Hydro One notes *"Smart Grid investments are assumed to be fully funded by Hydro One Distribution's customers as they will provide significant benefits to Hydro One Distribution's customers."* The manner in which this is stated seems to imply Hydro One believes Smart Grid investments can be recovered through the provincial recovery mechanism, in whole or in part, but has opted not to request such recovery. Board staff's understanding of Regulation 330/09 is that none of these investments are eligible for external funding. Does Hydro One's understanding or interpretation of Regulation 330/09 differ from Board staff's? If so, please explain.

7. Ref: Exhibit A/Tab14/Sch2/p17
   In discussing the criteria proposed for assessing the benefits that Expansion work will provide to Hydro One Distribution customers, "Asset Replacement" is discussed as one criterion. Asset 'age' appears to be the only factor that is taken into account. Does Hydro One believe asset 'condition' is also an important factor in determining when a distribution asset should be replaced? If so, please explain why asset 'condition' has not been taken into account. If not, please explain why asset condition is not appropriate indicator of the expected useful life of an asset and, in turn, the benefit to Hydro One ratepayers.

8. Ref: Exhibit A/Tab14/Sch2/p18
   In discussing the Load Growth criterion, Hydro One notes an assumed 1% load growth (net of CDM) per year has been used. Is 1% (net of CDM) the load growth in each of the areas of Hydro One's territory where new renewable generation will be connected in the test years? If not, what is the basis for using 1% (net of CDM) and why did Hydro One not use the load growth in the specific area of each applicable asset in the application for which external funding is being requested given this criterion is being proposed by Hydro One to be used to estimate an appropriate amount for which the Board would approve recovery from all Ontario consumers?

9. Ref: Exhibit A/Tab14/Sch2/p19
   Further to the Load Growth criterion, Hydro One goes on to note *"It was also assumed that the planned generation-driven Expansion projects would provide a benefit for only 20% of the investments required in areas experiencing load growth."* Please explain how Hydro One determined 20% to be an appropriate assumption.

10. Ref: Exhibit A/Tab14/Sch2/p19
    Hydro One has estimated the benefits to Hydro One customers to be relatively minor in allocating about 83% of the gross Expansion related costs to the provincial recovery mechanism (i.e., "external funding").
    a) Is it therefore Hydro One's intent that only renewable generators will be connected to such new assets going forward (i.e., no new load customers and no new non-renewable generation will be connected)?
    b) Does the same apply to existing assets that are being upgraded and currently serve only existing load customers?
    c) If not, please explain in detail how Hydro One is taking existing vs future load customers into account in determining to what extent Hydro One ratepayers will benefit and

therefore should be allocated a portion of the costs. Please use a specific applicable capital investment in Exhibit D2/Tab2/Schedule3, specifically D28, as the foundation for the explanation associated with allocation of the Hydro One's portion of the costs between Hydro One's existing and future load customers.

11. Ref: Exhibit A/Tab14/Sch2/p22
    Hydro One proposes that the SCADA portion of the investment be *"shared equally for the 30% of DSs impacted … resulting in an estimated benefit to Hydro One Distribution customers of 9%"* and, thus, 9% of the investment cost be recovered through Hydro One Distribution rates, with the balance being recovered via an external funding mechanism. Please elaborate on how 9% vs 91% was determined by Hydro One to result in the cost being "shared equally".

12. Ref: Exhibit A/Tab14/Sch2/p17-22
    On page 21, Hydro One it discusses how Renewable Enabling Investments dovetail with development of the Smart Grid. On page 28, in discussing the Smart Grid, Hydro One discusses rolling out enablers (i.e., Wimax) to facilitate the connection of renewable generation. What criteria is used by Hydro One to determine if a certain capital investment has been identified in the application as a Smart Grid investment or a Renewable Enabling investment?

13. Ref: Exhibit D1/Tab3/Sch3/p11
    Is it Hydro One's expectation that the trend in Table 3, will continue over the long term (i.e., relatively immaterial amount of small generator connections compared to large and mid-size)?

14. Ref: Exhibit D1/Tab3/Sch3/p14
    In the application (prior to the update), Hydro One explained that the benefits to Hydro One ratepayers differ quite substantially based on the size of the connecting generators. For example, it stated on page 14 that the benefit to Hydro One load customers was estimated to be about 15% of the cost for connection of generators in the large (>10MW) and mid-size (500kW to 10MW) categories and 30% of the cost for small (<500kW) generator connections. This appears to have been removed in the evidence update.

    Was this reference removed because Hydro One determined it was not accurate? If it remains an accurate characterization, can Hydro One please broaden that explanation to clarify why there is approximately the same benefit allocation for mid-size and large generator connections and differs quite substantially when it involves connecting small generators?

15. Ref: Exhibit D2/Tab2/Sch3/Reference:D32
    This investment relates to modifications to the wholesale metering system assets at 14 *"Transmission Stations".* Hydro One notes on page 20 of Exhibit A, Tab14, Schedule 2 that *"Renewable Enabling Improvements ("REI") address modifications or additions to the main distribution system*". In addition, in the Board's June 5th , 2009 Notice in relation to EB-2009-

077, it states *"Some generation connections may trigger the need for upstream upgrades to the system of a … transmitter….Although the DSC is silent on the issue of cost responsibility for these upstream upgrades, the practice is for distributors to pass these costs on to the connecting generator. The Board does not propose to revise this approach at this time".*

Please explain why Hydro One believes this investment constitutes a modification to the main distribution system, how is it consistent with the definition of an "eligible investment" in Regulation 330/09 and why it is appropriate to request recovery from ratepayers in a distribution rate application.

-end-