

**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



**BY E-MAIL**

March 10, 2008

Attention: Ms. Kirsten Walli, Board Secretary

Dear Ms. Walli:

**Re: Hydro One Networks Inc.  
Board File Number EB-2007-0681**

Please see attached the Board staff interrogatories in the above proceeding. Please forward the following to Hydro One Networks Inc. and all intervenors in this proceeding.

Yours truly,

*Original Signed by*

Rudra Mukherji  
Case Manager

**BOARD STAFF INTERROGATORIES  
HYDRO ONE NETWORKS INC.  
2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

**RATE BASE**

1. Ref: Exhibit C1 Tab 6 Schedule 1 – Impacts of Distribution Asset Acquisitions and Sales, page 2 of 4, Table 1 / Issue 4.1

Hydro One states that it does not forecast losses/gains on the sale of assets. However, Hydro One has filed several applications under section 86 of the OEB Act for the acquisition or sale of assets. Please indicate if and how the value of these transactions (or proposed transactions), is reflected in the 2008 test year rate base.

2. Ref: Exhibit D1 Tab 1 Schedule 1 – Continuity of Fixed Assets Summary and Rate Base/ Issue 4.1

Please update Table 2 – Continuity of Fixed Assets Summary and Table 1 – 2008 Distribution Rate base to reflect the 2007 actuals.

3. Ref: Exhibit D1 Tab 1 Schedule 1 – Capital Expenditures/ Issue 4.1

For each of the years 2002 through 2008, please provide:

- a. A table listing the following, using actual values in years where available, and if not, then using expected or planned or projected, or percent(%):
- I) Allowed Return on Equity (%) portion of the regulated rate base;
  - II) Actual Return on Equity (%) portion of the regulated rate base;
  - III) Retained Earnings;
  - IV) Dividends to shareholders;
  - V) Sustainment Capital expenditures excluding smart meters;
  - VI) Development Capital Expenditures excluding smart meters;
  - VII) Operations Capital Expenditures;
  - VIII) Smart meters Capital Expenditures;
  - IX) Other Capital Expenditures (identify);
  - X) Total Capital Expenditures including and excluding smart meters;
  - XI) Depreciation;
  - XII) Construction Work in Progress;
  - XIII) Number of customer additions by class;
  - XIV) Rate Base.

**BOARD STAFF INTERROGATORIES**  
**HYDRO ONE NETWORKS INC.**  
**2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

- b. For the years 2002 to 2008 inclusive, please complete the following table including actuals, estimated dollars and percent (%) where indicated. Please identify the cost drivers, as indicated in the table. (Examples of cost drivers are: building new facilities, replacement of obsolete poles, and replacement of aging underground cables). Please identify the type and amount of any one-time, unusual expenditure incurred in any particular year that caused the change outside the given threshold, as provided in the table. Please **exclude** smart meter expenditures from the capital expenditures.

	Capital Expenditure (A) (\$)		Capital Expenditure (B) (\$)	Change (A-B) (\$)	% Change (A/B)	Cost Drivers for the change (increase or decrease) if the % change is either less than zero or more than 10%
2003		2002				
2004		2003				
2005		2004				
2006 Actual		2005				
2006 Actual		2006 Board Approved				
2007 Bridge Year		2006 Actual				
2008 Test Year		2007 Bridge Year				

4. Ref: Exhibit D1 Tab 1 Schedule 1 – Cash Flow/ Issue 4.1

Please provide cash flow data for 2002 to 2008 in the following format.

	2002	2003	2004	2005	2006	2007	2008
	Actual	Actual	Actual	Actual	Actual	Actual or Projected	Projected
1. Net Income (loss)							
2. Total Depreciation & Amortization Expenses							
3. Total Capital Expenditures (including Smart Meters)							
4. Non-cash working capital balances							
5. Other							
Subtotal (A = 1+2+3+4+5)							

**BOARD STAFF INTERROGATORIES  
HYDRO ONE NETWORKS INC.  
2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

Cash, beginning of period (B)							
Cash, end of period (B) + (A)							

5. Ref: Exhibit D1 Tab 1 Schedule 1 – Depreciation/ Issue 4.3
  - a. Please confirm the statement on page 3 that “plant older than the proposed amortization period be immediately retired from service” does not mean physical retirement, but rather a set of accounting entries that effectively removes that item’s net asset value, if any, from Rate base. If that is not correct, please clarify the statement.
  - b. Please define the retirement categories mentioned in lines 18-20, namely:
    - I) “resulting from assets reaching their end of life”;
    - II) “due to the Distribution portion of Passport”; and
    - III) “normal retirements”.
  
6. Ref: Exhibit D1 Tab 1 Schedule 1 – Transfers/ Issue 4.1

In Table 2 – Continuity of Fixed Assets Summary, Hydro One shows net transfers of \$7.2M in 2007 and \$0.6M in 2008. Hydro One Networks states that the net transfers of \$15.1M in 2006 primarily reflect “the transfer of wholesale meters to Distribution due to deregistration of the meters” (page 4 of 5). [Emphasis Added]. Please provide further explanation of other transfers for the 2007 bridge and 2008 test years.
  
7. Ref: 2006 Filing requirement (EB-2006-0170) section 2.3 Exhibit 2 – Leave to Construct Applications/ Issue 4.2
  - a. Please provide the corporate capitalization policy and indicate any changes since 2006 from prior policy and the rationale for any change. Please also provide for each of the historical, bridge and test years:
  - b. A listing of depreciation for each of the USoA Groupings (i.e. by Asset Account) as listed in Exhibit D2 Tab2 Schedule 4, page 1.
  - c. The Continuity statements for Accumulated Depreciation of Assets by function (i.e. transmission plant, distribution plant, general plant, other plant).
  - d. Please confirm that Hydro One Distribution has no Leave to Construct projects under section 92, or if Hydro One Distribution has Leave to Construct applications under section 92 before the Board, please provide a list of all such applications. For each application, provide the cost estimate

**BOARD STAFF INTERROGATORIES**  
**HYDRO ONE NETWORKS INC.**  
**2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

of the Leave to Construct project and indicate if the project has been included in the 2008 test year rate base.

8. Ref: Exhibit D1 Tab 3 Schedule 1 – Carryover Projects/ Issue 4.2

Please identify carryover projects, on an individual basis (i.e., one project at a time, including \$ amount carried over from one year to another), for the 2006 actual, 2007 bridge, and 2008 test year.

CONTINUITY SCHEDULE OF CARRYOVER PROJECTS

Type of the Carryover Project (e.g. Underground cable replacement, smart meters, etc.)	Start Date	End Date	\$ Carryover from 2005 to 2006	% Carryover from 2005 to 2006 to total 2006 Capital expenditure	\$ Carryover from 2006 to 2007	% Carryover from 2006 to 2007 to total 2007 Capital expenditure	\$ Carryover from 2007 to 2008	% Carryover from 2007 to 2008 to total 2007 Capital expenditure
1.								
2.								
3.								
4.								
5.								
6.								

For each project documented in the above table, please explain why the project was carried over (or is expected to be carried over). Please also specify if the project is one-time or ongoing.

9. Ref: Exhibit D2 Tab 2 Schedule 1 – Rate Base Summary/ Issue 4.1

Please complete the table below with the requested information

RATE BASE SUMMARY

RATE BASE SUMMARY	2006 Board Approved (\$)	2006 Actual	Variance from 2006 Board Approved (\$)	2006 Actual (\$)	2007	Variance from 2006 Actual (\$)	2007 (\$)	2008 Test	Variance from 2007 (\$)
Gross Asset Values at Cost									
Accumulated Depreciation									
Net Fixed Assets									

**BOARD STAFF INTERROGATORIES**  
**HYDRO ONE NETWORKS INC.**  
**2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

Allowance for Working Capital									
Rate Base									

10. Ref: Exhibit D1 Tab 1 Schedule 2 – Distribution System Assets / Issue 4.1

Please complete the table below identifying the actual or projected asset values for each of the classes of assets for the period 2002 to 2007.

Hydro One Distribution System Assets							
		2002	2003	2004	2005	2006	2007
		Asset Values (\$M)					
Secondary Distribution Feeders	48,000 km						
Poles (line supports)	1.65 million						
Distribution Stations	931						
Regulating Stations	75						
Station Transformers and Regulators	1,477						
Pole-mount & Pad-mount Transformers	475,000						

11. Ref: Exhibit D1 Tab 1 Schedule 3 – Working Capital / Issue 4.1

- a. On December 18, 2007, the Federal Government reduced the Goods and Services Tax (GST) to 5% effective January 1, 2008. Please provide updates to Tables 1 and 2 reflecting the GST reduction.
- b. In Table 1 of Exhibit D1 Tab 1 Schedule 3, please provide the unit cost for energy used in the calculation of the projected cost of energy of \$1,959.3M for the test year 2008.
- c. For years 2002 through 2008, please provide a table listing the rate base, working capital and working capital as a percent of rate base.
- d. What is the percentage increase in the 2008 test year rate base that would result from a 1% increase in the cost of power?
- e. Please provide a description of "Environment (or Environmental) Cost" category as used in the determination of Working Capital.

**BOARD STAFF INTERROGATORIES**  
**HYDRO ONE NETWORKS INC.**  
**2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

12. Ref: Exhibit D1 Tab 1 Schedule 4 – Inventory Levels/ Issue 4.2

On page 2, Hydro One states, “Over the 2004 – 2006 period, particularly in 2006, annual inventory levels excluding smart meters increased by 44%. Further slight increases are expected over 2007 to 2008 period and onwards”.

- a. Please provide and quantify the cost drivers responsible for the 44% increase in inventory levels.
- b. What percentage of the increase in inventory levels can be attributed to the market increase in price of steel and other commodities versus the change in the level of inventory?
- c. What inventory control methods has Hydro One deployed to manage inventory levels? Please also state the financial implications of these methods on inventory management and inventory control.
- d. Has Hydro One conducted benchmarking and best practice study regarding the inventory levels with other similar size North American and Canadian distributors? If yes, then please file any studies conducted since 2005.

13. Ref: Exhibit D1 Tab1 Schedule 4 – Inventory/ Issue 4.2

Please provide a graph of Inventory (\$) against Gross Plant (\$) for each of years 2004 through 2008.

14. Ref: Exhibit D1 Tab 2 Schedule 1 – Asset Condition Assessment and Analysis Issue 4.8

Hydro One states “[Asset Condition Assessment] practices are based on studies carried out by Acres International Ltd., comparisons with other members in the electrical utility industry and expert opinion available within Hydro One”.

- a. Please provide copies of any recent studies conducted by Acres International which Hydro One has relied on in assessing the condition of its assets.
- b. Please provide copies of any internal or external reports involving comparisons with other members in the electrical utility industry which Hydro One has relied on in assessing the condition of its assets.

**BOARD STAFF INTERROGATORIES**  
**HYDRO ONE NETWORKS INC.**  
**2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

15. Ref: Exhibit D1 Tab 2 Schedule 1 – section 4.1.5 – Rights-of-Way Vegetation / Issue 4.3

- a. Will the level of clearing of vegetation or allocation of funds and effort in this area continue after 2008?
- b. Are there any environmentally acceptable and cost effective methods of economically retarding vegetative growth other than physical cutting?
- c. What alternative methods has Hydro One investigated and what have been the findings of such investigations?

16. Ref: Exhibit D1 Tab 3 Schedule 1 – Rudden Study / Issue 4.2

On pages 2 and 3, Hydro One states, “In accordance with the accepted Rudden recommendations on overhead capitalization rate, beginning in 2007 Hydro One Networks is adjusting the overhead capitalization rate within the year to reflect projected changes in spending. This will better align the overhead capitalization rate with overhead costs of the capital projects supported. This adjustment, called E-factor, true’s-up the capitalized overheads by -\$14.4 million. This is included as an adjustment to the derivation of the 2008 capitalization rate.”

- a. Please confirm if the above statements mean that, absent this adjustment, the capitalized overhead would have been that amount higher for Hydro One Distribution’s capital expenditure.
- b. Please provide further explanation on the basis for the adjustment and the derivation of the adjustment of \$14.4 million for 2008.
- c. Please describe the accounting treatment used to record the -\$14.4 million and the reasons for its selection.
- d. Please describe how the allocation of overhead to smart meter OM&A and to smart meter capital expenditures is supported by the Rudden Study.
- e. Please show the dollar amounts and describe the methodology for allocating corporate overhead to smart meter OM&A and to smart meter capital expenditures in 2006, 2007 and 2008.

17. Ref: Exhibit D1 Tab 3 Schedule 3 – Customer Connection Forecasts/ Issue 4.4

In section 2.1.1, Hydro One states, “In 2005 and 2006 new connections averaged around 17,600 customers a year ...It is estimated that about 17,600 new connections will be added to the Hydro One Distribution’s system during 2008 which is in line with the recent historic average and validated by projected



**BOARD STAFF INTERROGATORIES**  
**HYDRO ONE NETWORKS INC.**  
**2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

load forecasts. Exhibit [sic], Tab 14, Schedule 3 sets out the distribution load forecasting details and methodologies used.”

- a. What are the macroeconomic assumptions used in developing the forecast?
- b. How are these different (type and magnitude) from those used to develop the 2005 and 2006 forecasts?
- c. What was the forecast of new connections in 2005 and 2006?

18. Ref: Exhibit D1 Tab 3 Schedule 2 – Wood Structure Replacement/ Issue 4.3

- a. Please explain how the proposed 2008 wood pole replacement program involving 7000 poles (which represents 0.42% of the 1.65M pole population) is an adequate level given that the asset condition assessment indicates that 4% of poles are in poor or very poor condition.
- b. Please indicate how many poles of the 4% in the “poor” or “very poor” condition are being replaced under other projects such as Line Projects.

19. Ref: Exhibit D1 Tab 3; Schedule 3 – Development Capital/ Issue 4.4

On page 2, Hydro One states the following “The 2008 proposed spending is approximately 18% above historic [sic] averages, with the increase primarily attributed to:

- o Additional system reinforcement spending to address the cumulative impact of increased utilization of the distribution system;
  - o Material and equipment cost increases above forecasted escalation. Since 2005, the electrical industry has experienced increases in material and equipment costs in the order of 20% to 40%;
  - o Increase in anticipated Distribution Generation connections to meet Government Programs;
  - o Change in new customer connection mix moving towards more high cost subdivision connections.
  - o Increase in volume of the more costly full Wholesale Revenue Meter conversions to comply with market rules.”
- 
- a. With respect to material and equipment cost increases (referenced in bullet 2), please provide a table for major material and equipment categories

**BOARD STAFF INTERROGATORIES  
HYDRO ONE NETWORKS INC.  
2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

showing the total dollar amount and number of units purchased for the period 2004 to 2008.

- b. With respect to the number of and change in type of new customer connections (referenced in bullet 4), please provide a table showing the annual number of new connections, total annual dollar amount, dollar amount attributed to Hydro One and dollar amount attributed to customers for the period 2004 to 2008.
- c. With respect to Wholesale Revenue Meter conversions (referenced in bullet 5), please provide a table indicating the number and average cost of both partial and full wholesale meter upgrades or conversions by voltage level completed for the period 2004 to 2008. Please state why the program for Wholesale Meter conversions has increased in 2008.

20. Ref: Exhibit D1 Tab3 Schedule 3 – section 2.1.4 – Service Cancellations/ Issue 4.4

- a. Please provide the actual and forecasted costs for service cancellations for each year from 2004 to 2008.
- b. Please clarify whether these service cancellation costs are to be capitalized or expensed.

21. Ref: Exhibit D1 Tab 3 Schedule 3 – Reliability Enhancement and System Monitoring Projects/ Issue 4.2

Hydro One provides a summary of system monitoring projects on page 10, lines 1 to 7. Please indicate the number of monitoring locations established and the total dollar amount for the period 2004 to 2008.

22. Ref: Exhibit D1 Tab 3 Schedule 3 – Generation Connection/ Issue 4.2

Please indicate who (i.e. Hydro One, the generator) pays for the connection assessments and cost estimates.

23. Ref: Exhibit D1 Tab 3 Schedule 3 – Generation Connection/ Issue 4.2

On page 12 of 18, Hydro One states, “Upgrades to Hydro One’s distribution lines (poles in particular) may also be required in cases where the customer chooses to make use of Hydro One facilities rather than build their own. Based on Hydro One’s experience with joint use, it is anticipated that in these situations, Hydro One will be accountable for 83% of the upgrade costs and the customer will

**BOARD STAFF INTERROGATORIES**  
**HYDRO ONE NETWORKS INC.**  
**2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

contribute 17%. Provision for the associated costs is included in this filing and results in net costs of \$4.4 million in 2008.”

Please explain the basis for recovering 83% of pole upgrade costs from ratepayers, when a pole upgrade is necessary where a new generation customer decides to make use of Hydro One pole facilities under joint use.

24. Ref: Exhibit D1 Tab 3 Schedule 3 – Generation Connection/ Issue 4.2

On page 13 of 18, Hydro One states, “Power quality (PQ) impacts on Hydro One’s distribution system and customers is a key issue associated with certain types of generators (such as wind). To ensure this is appropriately understood and managed, Hydro One Distribution is installing PQ meters in the vicinity of possible wind generation connections to enable monitoring of customer PQ issues in these areas. The associated capital is not covered by contributions from generators and amounts to \$1.2 million in net costs in 2008.”

- a. Please provide the derivation of the \$1.2 million cost estimate for PQ Metering.
- b. Please explain what is meant by in the vicinity of “possible” wind generation connections. Are these locations where a SOP project has been initiated?
- c. Please explain, absent an actual wind generation connection, the benefit of the PQ meter to Hydro One ratepayers.
- d. Please explain why costs of PQ meter installations are not being recovered through contributions from generators.

25. Ref: Exhibit D1 Tab 3 Schedule 3 – section 2.3 – Generation Connection/ Issue 4.2

Table 3 indicates that only 20 small, 40 medium and 4 large generator connections are expected to proceed to completion.

26. Ref: Exhibit D1 Tab 3 Schedule 3 – Generation Connection/ Issue 4.2

Please provide the detailed calculation of and principles for the allocation of costs of connection, between Hydro One and generation developers including:

**BOARD STAFF INTERROGATORIES**  
**HYDRO ONE NETWORKS INC.**  
**2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

- a. The basis for determining the cost allocation percentage between Hydro One and generation developers for connection costs. (30% for connection of generators in the large category, 25% for mid-size projects and 15% for small generators.);
- b. The calculation of the estimated \$2.8 million connection costs;
- c. The calculation to show the derivation of the \$4.4 million distribution line cost.

27. Ref: Exhibit D1 Tab 3 Schedule 3 – section 2.5.4 – Central Metering/ Issue 4.2  
Hydro One provides the following table showing the volumes of central metering requests:

	2004 volume	2005 volume	2006 volume	2007 volume	2008 volume
Central Metering	1,095	1,095	1,095	950	950

- a. Please identify if the 2004, 2005 and 2006 volumes are actuals or approximations;
- b. Please explain the decrease for the number of central metering requests in the 2007 bridge and 2008 test years;
- c. Please provide a disaggregation, if possible, of central metering requests < 45 kW and ≥ 45 kW.

28. Ref: Exhibit D1 / Tab 3 / Schedule 3, section 2.5.6 – Temporary Services/ Issue 4.2

Hydro One provides the following table showing the volume of temporary services provisions by year:

	2004 volume	2005 volume	2006 volume	2007 volume	2008 volume
Temporary Services	211	211	211	211	211

Please identify if the 2004, 2005 and 2006 volumes are actuals or estimates.

**BOARD STAFF INTERROGATORIES**  
**HYDRO ONE NETWORKS INC.**  
**2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

29. Ref: Exhibit D1 Tab 3 Schedule 5 – Shared Services/ Issue 4.7
- a. Please describe the methodology underlying the allocated split of capital to Shared services and Other Capital between Hydro One Distribution and Hydro One transmission;
  - b. Please provide a numerical example of the methodology as applied to one major component of Shared Services.
30. Ref: Exhibit D1 Tab 3 Schedule 5 – Information Technology/ Issue 4.2
- a. Please describe the differences and the relationship between the following IT projects: Customer Information System (CIS), Customer Relationship Management (CRM) and Phase 4 of the Cornerstone project.
  - b. Please provide a diagram which shows how the various computer systems covered by this \$200 million investment, interface with, and relate to each other, clearly marking those substantially completed in 2007 and those scheduled for completion in 2008, with budgeted costs in those years.
  - c. Please describe the meaning of “virtualization of the Storage Area Network” described on page 9, line 25.
31. Ref: Exhibit D1 Tab 4 Schedule 1 – AFUDC/ Issue 4.1
- a. Please confirm that Construction Work in Progress, for facilities not brought into service in test year 2008, is not included in the 2008 rate base. If that is not the case, please explain the accounting treatment of Construction Work In Progress.
  - b. Please confirm that those projects that have been brought into service in 2007, and budgeted for 2008 have the AFUDC included in the actual costs and estimated costs for inclusion in the 2008 rate base.
32. Ref: Exhibit D1 / Tab 3 / Schedule 5 – Service Equipment/ Issue 4.2
- Minor fixed assets (“MFA”) service equipment expenditure is increased by 138% from 2006 (\$3.9 million) to 2008 (\$9.3 million). On page 36 of 39, Hydro One states, “Higher year over year spending in 2007 & 2008 is the result of end-of-life replacement of specific large transport equipment and to accommodate planned growth in distribution and transmission work program.”
- a. Please elaborate on the “planned growth in distribution and transmission work program” and describe it in detail including the period covered.

**BOARD STAFF INTERROGATORIES  
HYDRO ONE NETWORKS INC.  
2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

Please provide the breakdown of the growth and costs for the distribution business that require these work programs.

- b. If both “end-of-life replacement of specific large transport equipment” and “planned growth in distribution and transmission work program” are the contributing factors to this significant increase, please describe the percentage contribution to this increase for each of these cost determinants for the distribution business.

33. Ref: Exhibit D1 Tab 3 Schedule 5 – IT Capital Expenditure, Table 3/ Issue 4.2

The capital expenditure for development projects increased by 426% from 2006 (\$12.5 million) to 2007 (\$65.8 million) and by 449% in 2008 (\$68.6 million) compared to 2006. On page 6, Hydro One states “Deployment projects replace or upgrade older and end-of-life applications or develop new applications or processes, including those:

- o that have become inadequate for current functional needs;
  - o that require new applications to improve Business operations
  - o that result from legislative or market driven initiatives”.
- a. Please provide a table showing the amounts for the above three categories for each year from 2006 to 2008, summing to the Development Projects capital expenditures shown in Table 3. Please outline the implementation duration (start date, end date) for each development project.
  - b. Please explain if Hydro One has considered a phased approach for any of the Development projects in order to spread the implementation costs over a larger number of years and thus reduce the impacts on rate payers. If Hydro One does not consider a phased approach to be appropriate, please provide an explanation.

34. Ref: Exhibit D2 Tab 2 Schedule 3 Reference # S11 – Havelock TS 57M1 Feeder Refurbishment/ Issue 4.3

Please provide the Board approved Capex budgeted and the actual expenditures from 2004 to 2007 (cumulative) for the 20 kilometres of line section between Eels Lake RS and Bancroft DS. Please explain any significant variance (difference between budgeted and actual > 10%) in the costs incurred to date on this project.

**BOARD STAFF INTERROGATORIES**  
**HYDRO ONE NETWORKS INC.**  
**2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

35. Ref: Exhibit D2 Tab 2 Schedule 3 Reference #S17 – Fort Frances TS M1 Feeder Rehab Phase 3/ Issue 4.3

Please provide the Board-approved capex budgeted and the actual expenditures for the first two years (cumulative) of this project. Please explain any significant variance (difference between budgeted and actual > 10%) in the costs incurred to date on this project. When is this project expected to be completed and operational?

36. Ref: Exhibit D2; Tab 2; Sched. 3 Reference # S18 – Metering for Shared Use Distribution Charges/ Issue 4.2

- a. Please explain the rationale for installing new meters at 20 sites.
- b. Please indicate the number of sites where new meters were installed in each of the historic years 2004 to 2007 and the corresponding costs.

37. Ref: Exhibit D1 Tab 3 Schedule 5 and Exhibit D2 Tab 2 Schedule 3 reference # IT1 – Cornerstone Project/ Issue 4.2

In Table 6 on page 15, Hydro One Distribution is allocated \$28 million (from the total of \$63 million) for the Cornerstone project for the 2008 test year.

- a. Please provide details of the basis for the cost allocation to Hydro One Distribution for the Cornerstone project.
- b. Table 6 shows a Cornerstone Project related 2008 expenditure of \$63.0 M while Exhibit D2 Tab 2 Schedule 3 Reference # IT1 shows Cornerstone 2008 expenditure as \$50.3 million. Please provide a reconciliation of these figures.
- c. The table at the bottom of Exhibit D2 Tab 2 Schedule 3 reference # IT1 shows Capital and MFA expenditures of \$76.7M for 2007 and \$50.3M for 2008 test year. Please provide the cost breakdown between Hydro One Transmission and Distribution for each of these years.

38. Ref: Ref: Exhibit C1 Tab 4 Schedule 2 – Implementation of Cornerstone Phase I /Issue 4.2

In this Exhibit, at page 11, lines 7-11: Hydro One states, "Implementation of Cornerstone Phase I, as discussed in detail in Exhibit D, Tab 3, Schedule 5 is anticipated to contribute productivity gains through its lifetime for total cost

**BOARD STAFF INTERROGATORIES  
HYDRO ONE NETWORKS INC.  
2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

efficiency gains equal to about \$200 million commutative over the seven year lifetime of the new IT systems beginning in 2009”.

- a. Please confirm if Cornerstone Phase I will be in service in 2008.
- b. Please confirm if Hydro One assumes that the cost efficiency gain as a result of Cornerstone will not be realized in 2008.
- c. Please state the nature of cost efficiency gains equal to about \$200 million as referenced in the above quote, and provide detailed descriptions of areas of cost savings and the expected associated cost savings expressed in dollars.
- d. With respect to the expected \$35.0 million benefit arising from improved contract compliance and management documented on Exhibit D1 Tab 3 Schedule 5, page 21, please provide the detailed calculation of this estimated benefit.
- e. Please state how Hydro One intends to capture the cost savings during the IRM process of 2009 and 2020.

39. Ref: Exhibit D1/ Tab 3/ Schedule 5/ Page 29 – Real Estate Capex/ Issue 4.2

In Table 7, Hydro One Distribution is allocated \$4.0 million (from the total of \$9.2 million) for the Real Estate major capital program. Please explain the basis of the cost allocation to Hydro One Distribution.

40. Ref: Exhibit D2 Tab 2 Schedule 1 – Comparison of Capital Expenditures – Historical, Bridge and Test Years/ Issue 4.2

Please provide a revised table showing an additional column with the 2006 Board-approved amounts.

41. Ref: Exhibit C2 Tab 5 Schedule 1 – Depreciation & Amortization Expense/Issue 3.7 and 4.2

- a. Please provide a detailed description of the Other Regulatory Amortization and a detailed calculation of the amount of \$43.4 million for 2007.
- b. Please explain the reason for the Other Regulatory Amortization category to reduce to \$0 in 2008.
- c. What useful lives for depreciation purposes has Hydro One assumed for each of the types of assets used and/ or installed as part of the smart meter minimum functionality and excess functionality? For example, smart



**BOARD STAFF INTERROGATORIES  
HYDRO ONE NETWORKS INC.  
2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

meter heads, radio frequency amplifiers, antennas, repeaters, other communication equipment, and Capgemini contract costs.

- d. What amortization period has Hydro One estimated for computer system software and computer hardware related to the smart metering initiatives?
- e. Please provide a table that shows the depreciation expense related to smart meters for 2006, 2007 and 2008.

42. Ref: Exhibit D1 Tab 3 Schedule 5 – Information Technology/ Issue 4.2

Under section 2.4 – IT Development Projects Capital Expenditures, Hydro One states that the Passport system and CSS system will be replaced by or upgraded by Cornerstone projects.

- a. Please advise whether the Passport and CSS systems have been fully depreciated or not.
- b. If not, please provide the remaining life of each of these two systems.
- c. Please provide the amount of the expected write-off(s), if any, which would be associated with each of these two systems.

**CAPITAL EXPENDITURES AND RELIABILITY**

43. Ref: Exhibit A, Tab 3, Schedule 1 and Exhibit A Tab 15 Schedule 1– Reliability Performance/ Issue 1.6

Hydro One states at page 16 of Exhibit A Tab 3 Schedule 1 that: “an event is considered *force majeure* when it impacts more than 10% of customers serviced by Hydro One Distribution”.

Board staff notes that *force majeure* events are generally referred to as those events that are beyond the reasonable control of the firm, including natural disasters such as tornados, earthquakes, hurricanes, flood, other acts of God, acts of any Government, civil disorder, or similar incidents.

Please list, in a table format, all events from 2002 to 2007 impacting more than 10% of customers serviced by Hydro One Distribution that were not caused as a result of any *force majeure* events as defined above by Board staff. In the table, for each event, indicate the geographical location affected, date(s) of

**BOARD STAFF INTERROGATORIES**  
**HYDRO ONE NETWORKS INC.**  
**2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

occurrence, the reason for the outage, number of customers impacted, percent of customers affected, duration of outage, restoration time, and the cause.

44. Ref: Exhibit A Tab 3 Schedule 1 – Reliability Performance/ Issue 1.6

For the pie charts shown in Figures 4 and 5 on pages 18-19, Please define the following categories, including identification of the differences between the two in each pair, a description of an example for each, and the industry standards that Hydro One used to define the category:

- a. “Tree contacts” and “*Force Majeure* -Tree contact”
- b. “Defective Equipment” and “*Force Majeure* – Equipment”
- c. Please define “*Force Majeure* – Other” and provide detail for causes for the outage, i.e., hurricanes, etc.

45. Ref: Exhibit A Tab 3 Schedule 1, Pages 18 and 19, Figures 4 and 5 – Reliability Performance/ Issue 1.6

Hydro One provides pie charts in Figures 4 and 5 on pages 18 and 19 of the exhibit. It also states that the “*Force Majeure* – Equipment” factor contributed 7% to the four year average (2003-2006) in SAIDI and 4% to the four year average (2003-2006) in SAIFI.

- a. Please provide the equipment types and details for various causes resulting in the “*Force Majeure* – Equipment” factor contributing to the stated SAIDI and SAIFI measures.
- b. Please determine if and to what degree each of the following contributed to the “*Force Majeure* – Equipment” factor:
  - I) “Equipment operating conditions”;
  - II) “Equipment physical condition, e.g. equipment age, etc.”;
  - III) “Equipment engineering design”;
  - IV) “System operating conditions”;
  - V) “Load and system demand”;
  - VI) “Manufacturing defects”.
- c. Please indicate if a different level or cycle of equipment maintenance and replacement programs employed by Hydro One, i.e. increased or decreased expenditures, could have affected the “*Force Majeure* – Equipment” factor, resulting in different values for SAIFI and SAIDI.

**BOARD STAFF INTERROGATORIES  
HYDRO ONE NETWORKS INC.  
2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

46. Ref: Exhibit A Tab 3 Schedule 1 – Reliability Performance/ Issue 1.6

With respect to Figures 4 and 5 on pages 18-19, Hydro One states that: “*Force Majeure* – Tree contact” contributed to 43% to four year average (2003-2006) in SAIDI and 14% to four year average (2003-2006) in SAIFI.

- a. Please provide further details on how and why outages categorized under the “*Force Majeure* – Tree contact” factor contributed to the increases in the four-year averages for SAIDI and SAIFI performance.
- b. Please indicate if a different level or cycle of vegetation management program employed by Hydro One, i.e. increased or decreased expenditure or cycle, could have affected the “*Force Majeure* – Tree contact” factor, resulting in different values for SAIFI and SAIDI.

47. Ref: Exhibit A Tab 3 and Exhibit A Tab 15 Schedule 1– Reliability Performance/ Issue 1.6

On page 17 of Exhibit A Tab 3 Schedule 1, Hydro One states, “Excluding *force majeure* events, performance for both SAIDI and SAIFI has remained relatively consistent during 2003 to 2006 period, with performance in 2006 remaining stable or improving relative to 2005. Including *force majeure* events performance has varied significantly from year to year due to variations in the number and severity of storms that have affected the Hydro One Distribution System in a given year.” Hydro One provides further details on *force majeure* events from 2004 to 2006 in Exhibit A Tab 15 Schedule 1.

- a. Please provide information in a table format, for each of the *force majeure* events, as defined by Hydro One, identifying (as “Yes” or “No”) whether the number of customers impacted, outage duration, and restoration time would have been affected, if Hydro One had made a change in any of the “Impacting Factors” shown in the following table.

Impacting Factor	Number of Customers Impacted (A)	Duration of Outage (B)	Restoration Time (C)	Rational for Impact, if any, for A, or B, or C and the Extent of Impact
Level and cycle of equipment maintenance and replacement programs				

**BOARD STAFF INTERROGATORIES**  
**HYDRO ONE NETWORKS INC.**  
**2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

Level and cycle of vegetation management program				
Number of advanced automated technologies, e.g. sectionalizers, breakers, etc.				
Investment level in distribution system equipment and upgrades				
Number of communication devices associated with the equipment				
Number of communication devices with the field staff Engineering design of distribution system				
Restoration time				
Level of crews				
Crews schedules				
Crews travel time				
Number of de-centralized, but integrated, operation centers, e.g., trouble crew centers				
Number of de-centralized, but integrated, distribution operations and maintenance centers				

- b. If the answer is “Yes” to any of the impacting factors for one or more outages listed in the tables for a), please state if Hydro One has planned any initiatives in 2008 to minimize the effect of possible future *force majeure* events and to enhance Hydro One Distribution’s reliability performance.

**BOARD STAFF INTERROGATORIES**  
**HYDRO ONE NETWORKS INC.**  
**2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

48. Ref: Exhibit A Schedule 5 Tab 2, Attachment A – Hydro One Distribution Benchmarking Study / Issue 1.6 and Issue 4.8

The Hydro One Distribution Benchmarking Study from 2004 – 2006 dated October 24, 2007 conducted by PA Consulting Group states the following on page 4-20 under section 4.2.2:

“Asset Replacement Rates:

In the area of asset management rates, the low numbers provide some reason for concern. **In particular, Hydro One is replacing its assets at a very low rate, both in comparison to the panel and in general.** While the figures investigated are only on a 3-year average basis, if the replacement rate is indicative of the long-term capital replacement rate, it would indicate an extraordinary long life expectancy for some of the electric system.” [Emphasis added]

With respect to benchmarking of Hydro One’s reliability, the following is stated in the Executive Summary at page 1-5:

“Reliability:

Hydro One has comparatively poor reliability within the panel group, when measured by metrics such as SAIDI and SAIFI.”

Further, on page 4-20 of the Benchmarking Study, under section 4.2.3:

“For Hydro One, using reliability metrics as modified for line length, which better represents the rural nature of Hydro One electric system, shows Hydro One performance is average, with reasonable expectations of improvements. Using SAIDI and SAIFI metrics, **the electric system reliability compared against its peers is poor on a ‘customer experience’ basis.** Given the nature of the service territory, the ability to compare favourably on the customer experience basis is very limited. It is possible to improve on the current performance, but it would be extraordinarily expensive to achieve first-quartile performance on the SAIFI/SAIDI metrics”.

**BOARD STAFF INTERROGATORIES**  
**HYDRO ONE NETWORKS INC.**  
**2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

- a. Please provide an explanation of why the consultant concludes that Hydro One is “replacing its assets at a very low rate both in comparison to the panel and in general”
- b. Please state if Hydro One agrees with the statement, “replacing its assets at a very low rate both in comparison to the panel and in general”.
- c. Please state if Hydro One agrees with the statement, “...electric system reliability compared against its peers is poor on a ‘customer experience’ basis”. Please provide an explanation on the possible reasons that Hydro One’s “electric system reliability compared against its peers is poor on a ‘customer experience’ basis” as documented in the benchmarking study.
- d. Please provide an explanation on the possible relationship between Hydro One’s reliability performance and relatively low rate of asset replacement as identified in the benchmarking study.
- e. Please describe in detail how Hydro One intends to address the concerns in the areas of asset management and reliability noted in the Hydro One Distribution Benchmarking Study. Please state if and how these issues are addressed in Hydro One’s 2008 distribution rate application.
- f. Please describe areas of utility best practices that Hydro One can learn from and adopt from the Hydro One Distribution Benchmarking Study conducted by PA Consulting. Please include a cost impact analysis in your response.

49. Ref: Exhibit A-15-2, Attachment A, Hydro One Distribution Benchmarking Study and Exhibit A, Tab 14, Schedule 5 – Tree Trimming/ Issue 4.3

Hydro One Distribution Benchmarking Study from 2004 – 2006 dated October 24, 2007 conducted by PA Consulting Group states at pages 4-21 “The only variable about the tree trimming practices which was tracked for this study is the length of the tree-trimming cycle for each of the companies. **Hydro One has by far the longest cycle time between consecutive trimming of each tree.** It would be worth investigating to see whether that has led to greater difficulty in performing the trimming when the time comes for each tree or circuit. It is also conceivable that this long cycle leads to more “hot-spot” trimming than usual, which is typically more expensive than routine cycle trimming. Previous studies executed by PA Consulting have indicated that **the optimum tree-trimming cycle length is nearer to 5-6 years than to the 11 currently in practice at Hydro One.**

**BOARD STAFF INTERROGATORIES  
HYDRO ONE NETWORKS INC.  
2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

One additional area of interest for further study would be the relationship between the long cycle time of tree-trimming and the reliability results.

**Shortening of the cycle time will probably have the benefit of reducing the frequency of the % of interruptions caused by trees** and how much those could be reduced by a differently-structured tree-trim program.”

- a. Please state if Hydro One agrees with the statement- “The optimum tree-trimming cycle length is nearer to 5-6 years than to the 11 currently in practice at Hydro One”.
- b. Please state if Hydro One agrees with the statement, “Shortening of the cycle time will probably have the benefit of reducing the frequency of the % of interruptions caused by trees”.
- c. Please provide an explanation if the long cycle for tree trimming may have contributed to long duration of outages affecting Hydro One Distribution’s network performance either during *force majeure* or non-*force majeure* outages.
- d. Please provide an explanation for Hydro One’s selection of its current 11-year tree trimming cycle.
- e. Has Hydro One performed a “Business Value Evaluation Matrix” (as shown on page 7 of Exhibit A Tab 14 Schedule 5) for its 2008 vegetation management program? If so, please provide the results showing the impacts, risks, and cost profiles due to a reduced tree trimming cycle. If not, please explain why not.

50. Ref: Exhibit C1 Tab 2 Schedule 1 – Vegetation Management Program/ Issue 4.3

Hydro One quotes from page 31 at Exhibit C/Tab 2/ schedule 2 of its 2006 Distribution Rates application stating that, “Hydro One Distribution’s goal is to continue to increase accomplishments for line clearing with an objective to reach an optimum cycle from a reliability perspective of eight years by 2008. Annual accomplishments would have to increase from the current 10,360 km to 12,500 km”. In this application, Hydro One states that the proposed accomplishments for vegetation management are 12,500 km of rights-of-way line clearing and 12,500 km for brush control.

**BOARD STAFF INTERROGATORIES**  
**HYDRO ONE NETWORKS INC.**  
**2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

- a. Please confirm if Hydro One's tree trimming cycle for 2007 was 11 years, as referenced by Hydro One Distribution Benchmarking Study dated October 24, 2007 that was conducted by PA Consulting Group, Page 4-21.
- b. Please state if Hydro One has changed its 2008 tree trimming cycle to 8 years. If so, please provide the incremental cost for the acceleration in its tree trimming practice.

51. Ref: Exhibit C1 Tab 2 Schedule 2, – Vegetation Management Program and Exhibit A Tab 15 Schedule 1 – Service Reliability Indicators/ Issue 4.3 and Issue 1.6

On page 30 of Exhibit C1 Tab 2 Schedule 2, Hydro One states: "The 2008 spending on the vegetation management program is \$119.4 million, which is about 35% greater than average historic expenditures". Hydro One further states on page 31, "As noted in Section 6 of Exhibit A, Tab 3, Schedule 1, tree-related contacts accounted for 57% of SAIDI and 28% of SAIFI between 2003 and 2006, and the negative impact of trees during storm events were especially acute. As such, vegetation management presents the greatest opportunity to improve reliability."

- a. Please state if the proposed 2008 spending on the vegetation management, which is 35% greater than average historic expenditures, is expected to improve reliability performance in 2008 and beyond. If so, please provide an explanation of why Hydro One has established 2008 targets for the SAIFI, SAIDI, and CAIDI that are the same as 2006 targets, as shown in Table 2 of Exhibit A Tab 15 Schedule 1. Please provide Hydro One's views, in light of its proposed significant increase in vegetation management expenditures that should decrease the incidence and/or severity of outages from tree contacts, which in turn represent a significant proportion of the outages reflected in SAIDI and SAIFI, as to whether its operational targets for SAIDI and SAIFI in 2008 and beyond should be better (i.e. lower quantitatively) than in recent years.
- b. Please describe Hydro One's enhancements to its vegetation management program and how Hydro One believes that these will result in the greatest opportunity to improve reliability. Please clarify how improvement in reliability would be reflected in operational targets for SAIDI and SAIFI in 2008 and beyond.



**BOARD STAFF INTERROGATORIES**  
**HYDRO ONE NETWORKS INC.**  
**2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

52. Ref: Exhibit D1 Tab 3 Schedule 5 – IT Capital Expenditure and Exhibit A Tab 15 Schedule 1 – Service Reliability Indicators/Issue 4.2 and Issue 4.8

The capital expenditure for IT development projects increased by 576% from 2006 (\$12.5 million) to 2007 (\$84.5 million) and by 449% in 2008 (\$68.6 million) compared to 2006.

- a. Please describe the 2007 and 2008 IT development projects, if any, that are **directly** attributed to enhancing Hydro One's reliability performance. Please provide the information for the project cost, cost as a percentage of IT capital expenditures, and implementation timelines.
- b. If no IT development project is attributed directly to improving system reliability (e.g. enhancement of SCADA and control center, Outage management program, communications with the field devices such as RTUs and protection relays, etc), please state why Hydro One is not planning any investments in 2008 in its **IT infrastructure that directly support its system reliability**.
- c. With respect to its total capital expenditures, (for example, as listed in its capital expenditure program proposed for 2008 in Exhibit D1 Tabs 2 and 3), please outline all 2004 to 2007 actual and 2008 projected capital expenditures that have been implemented, or planned for 2008, to **directly enhance Hydro One's reliability performance**. Please provide a description of each program with associated costs and implementation timelines in a tabular format.
- d. Please provide the detail for Hydro One's storm management program, if any, stating if this program utilizes software programs residing on Hydro One's control system and SCADA and establishes communications with the field devices and field crews. Please provide information on IT upgrades for 2006-2008, if any, including costs and implementation timelines to further support this program. If Hydro One does not deploy a storm management program integrated into or with its SCADA system, please provide how Hydro One manages storms impacting its system infrastructure and service to customers.
- e. Please provide detail on Hydro One's distribution automation (DA) programs for 2006-2008, if any, including description of each program, its cost, and implementation timelines in a tabulated format.

**BOARD STAFF INTERROGATORIES**  
**HYDRO ONE NETWORKS INC.**  
**2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

53. Ref: Exhibit A, Tab 15, Schedule 1– Service Reliability Indicators/ Issue 1.6
- a. In Table 2, Hydro One has listed figures referred to as OEB Targets for 2004 – 2008. Please confirm that Hydro One’s definition of the targets for reliability indicators is based on the following statement documented in sections 15.2.1, 15.2.2 and 15.2.3 of the 2006 Electricity Distribution Rate Handbook: “A distributor that has at least 3 years of data on this index should, at a minimum, remain within the range of their historical performance.” Has Hydro One received any directives from the Board regarding these targets? If not, please explain the basis for the OEB targets shown in Table 2 including references to the Board’s directives. Please provide the mathematical derivation (e.g. mean) of the OEB Targets as shown in Table 2.
  - b. Hydro One has established 2007 to 2008 targets for the SAIFI, SAIDI, and CAIDI that are identical to the 2006 targets. Please describe why Hydro One has not established any improvement targets given the fact its reliability performance is lower compared to its peer utilities, when measured by metrics such as SAIDI and SAIFI, as noted in the Hydro One Distribution Benchmarking Study at page 1-5 and page 4-20 in section 4.2.3.
  - c. Worst Performing Circuits” (“WPC”) is a common methodology used in the electricity distribution industry to identify those sections of a distributor’s network most in need of maintenance or replacement due to reliability concerns. WPC consists of a list of those circuits or segments of the network that have the greatest incidence of outages. Over time, consecutive WPC lists can also indicate a utility’s efforts to address the most unreliable parts of its network. For example, appearance on the WPC list of an individual circuit for at least three consecutive years could raise concerns about the utility’s efforts to prioritize and address service degradation for those customers served by that circuit.
    - I) Does Hydro One use Worst Performing Circuits methodology, as an internal tool for measuring and managing system reliability?
    - II) If it does not, then please explain why Hydro One does not use this approach. What other methods does Hydro One employ that would be comparable to WPC, and why does Hydro One prefer these other approaches?

**BOARD STAFF INTERROGATORIES**  
**HYDRO ONE NETWORKS INC.**  
**2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

- III) If Hydro One does use WPC as a methodology, then please state how Hydro One uses this information to enhance the reliability of its system. Please also describe Hydro One's process for collecting information on WPCs, including a clear definition / description of the WPC methodology employed by Hydro One (i.e., the definition of a circuit, types of outages, if parts of the network excluded).and how the data are analyzed by Hydro One to identify worst performing circuits that require attention. Please provide, if available, Hydro One's WPC lists for the years 2004 to 2007 inclusive. Please explain how Hydro One uses the WPC in developing its Opex and Capex plans for the next year for the intention of improving system reliability in at least parts of its network. Please identify specific capital projects, if any, for the 2008 test year which have been developed or accelerated based on the WPC information Hydro One has collected for 2006 and 2007.

54. Ref: Exhibit A, Tab 15, Schedule 1, Page 2 – Reliability Performance/ Issue 1.6

- a. Please provide details on Hydro One's Outage Response Management System and explain if it is used as an outage management system dealing with both planned and unplanned outages. Please also explain if, and if so, how it is integrated with Hydro One's SCADA system.
- b. Please state to what degree Hydro One uses distribution automation in dealing with planned and unplanned outages to reduce interruption duration and enhance restoration time.

55. Ref: Exhibit D1 Tab 2 Schedule 1 – Rights-of-Way Vegetation Management/ Issue 4.3

On page 7, in Table 4.1 on its Asset Condition Assessment results, Hydro One reports that 31% of its lines, under the category of ROW Vegetation Management, is in "Poor" or "Very Poor" condition and requires Priority 1 (P1) attention.

On page 16, Hydro One states, "For Hydro One Distribution, the condition of rights of way is of great concern, as vegetation caused interruptions are the single greatest contribution to unreliability, as illustrated in Exhibit A, Tab 3,

**BOARD STAFF INTERROGATORIES**  
**HYDRO ONE NETWORKS INC.**  
**2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

Schedule 1, and Exhibit C1, Tab 2, Schedule 2. The projected accomplishment of 12,900 km during 2007 and 12,500 during 2008 will not fully address the 'poor' and 'very poor' locations over these two years. These conditions will diminish over the next few years, but will not be fully addressed until one maintenance cycle has been achieved."

- a. Please state the cycle for the rights-of-way ("ROW") vegetation management program.
- b. Please explain how a different cycle or/and expenditure level for ROW vegetation management program would address the concerns about distribution network reliability raised by Hydro One.
- c. If Hydro One had adopted the practice of optimum ROW vegetation management cycle discussed in b) above in 2004 or 2005, resulting in increased accomplishment of ROW kilometres clearance to date, please state the estimated impact of this practice on Hydro One's reliability performance (as measured by SAIDI and SAIFI) for 2006 to 2007 given Hydro One's knowledge on vegetation-caused interruptions and their contribution to unreliability in recent years.

56. Ref: Exhibit D1, Tab 2, Schedule 1, Page 2 – Summary of Distribution Capital Expenditures/ Issue 4.2

- a. Please re-construct Table 1, showing sustaining, development, operations, and shared services & other capital for 2004 – 2008 capital expenditures for the following dis-aggregation of capital expenditures:
  - I) smart meters only;
  - II) customer growth-related only;
  - III) Information Technology initiatives only;
  - IV) Information Technology initiative – Cornerstone only; and
  - V) Excluding smart meters, customer growth-related and Information Technology initiatives.
- b. For categories III) and V) in "a" above, please provide variance analysis showing year-over-year changes in expenditures, and provide explanations for material (i.e., greater than 5%) decreases or increases in capital expenditures in each of these categories.
- c. For "V", please provide an explanation on the impact on reliability performance due to the increase or decrease in expenditures. Please

**BOARD STAFF INTERROGATORIES**  
**HYDRO ONE NETWORKS INC.**  
**2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

provide a description, cost, and implementation timelines of all programs that **directly** contribute to enhancement of reliability performance.

- d. Please provide the cost/ benefit analysis Hydro One has prepared to identify the benefits to consumers for spending related to smart meter excess functionality.
- e. Please provide a numerical table that summarizes all of the capital costs in this application associated with smart meters for 2006, 2007 and 2008. For example, capital expenditures for smart meters, all related equipment, installation labour, computer systems software and hardware considered to be AMI, workforce management programs, Capgemini contract costs, computer systems in the IT section of the application that relate to smart meters, MDM/R-related computer system development costs, etc.

57. Ref: Exhibit A Tab 3 Schedule 1 and Exhibit D1 Tab 2 Schedule 1 – Service Reliability Indicators/ Issue 4.2 and Issue 4.8

On Pages 18 and 19 of Exhibit A/Tab 3/Schedule 1, Hydro One provides two pie charts illustrating the causes of outages and their proportionate contributions to SAIDI and SAIFI for the four year averages (2003-2006). Please reconstruct these figures to illustrate the proportion of Hydro One's three levels of priorities for its asset classes that are shown in Figure 1 of Exhibit D1 Tab 2 Schedule 1, page 3, as applicable, (i.e. showing the % contribution for station transformers, % of contribution for wood poles, etc. on SAIDI and SAIFI).

58. Ref: Exhibit D1, Tab 2, Schedule 1 - Asset Condition/ Issue 1.6 and Issue 4.3

On Page 3, Figure 1 of Exhibit D1, Tab 2, Schedule 1, Hydro One illustrates three levels of prioritization for its asset classes. Please provide an explanation of how, and to what degree, Hydro One's prioritization of replacement and maintenance programs for these assets are influenced by Hydro One's reliability performance as measured by SAIDI, SAIFI and other measures of reliability that Hydro One might be using for operational purposes.

**BOARD STAFF INTERROGATORIES  
HYDRO ONE NETWORKS INC.  
2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

**OPERATING, MAINTENANCE AND ADMINISTRATION (OM&A)**

**OM&A EXPENDITURES**

59. Ref: Exhibit C1 Tab 2 Schedule 1 Page 2/Issue 3.1
- a. Please provide in table format, total OM&A per customer for each year from 2002 to 2008. Please calculate the year-to-year variances and identify the drivers for the increase/decrease.
  - b. Please also provide a table format, total OM&A per circuit km of distribution lines for each year from 2002 to 2008. Please calculate the year-to-year variances and identify the drivers for the increase/decrease.

**SUSTAINING OM&A**

60. Ref: Exhibit C1 Tab 2 Schedule 2 Page 3/Issue 3.1
- What has been the proportion of Sustaining 'planned work' versus 'unplanned work' from 2006 to 2007? What is the forecast of planned work vs. unplanned work for 2008? Please explain how these forecasts were developed. Please also quantify the drivers/assumptions underpinning the 2008 forecast.
61. Ref: Exhibit C1 Tab 2 Schedule 2 Page 7/Issue 3.1
- With respect to "planned station maintenance", Hydro One states, "The 6,000 station reclosers are maintained on a 6 year interval, and airbreak switches, circuit switchers, high voltage fuses, and transformer underload tap changers are maintained on a similar interval. These activities in addition to mid-life maintenance overhaul on major equipment, management of station PCBs, transformer diagnostics and technical services account for a 2008 spending of \$8.6 million."
- a. Are all 6000 stations maintained once every six years or are 1000 stations maintained every year within a 6 year cycle?
  - b. Please provide the actual spending amounts for the 2006 and 2007 year for the above activities. In addition, please calculate the year-to-year variances from and explain the changes.
  - c. Since station reclosers are maintained on a 6 year interval, would the amount allocated to the activity be considered a one-time cost in 2008?

**BOARD STAFF INTERROGATORIES  
HYDRO ONE NETWORKS INC.  
2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

- d. If so, please state why Hydro One believes that this one-time cost should be included in the 2008 rates and continued into 2009 and 2010 under the IRM process.
- e. If not, please provide a proposal on how the 2008 one-time costs should be recovered in this application.

62. Ref: Exhibit C1 Tab 2 Schedule 2 Page 30/Issue 3.2

- a. Regarding Line Clearing, please provide an explanation for the significant increase of \$23.5 million (46%) from 2006 to 2007. Please also identify and quantify the drivers for this increase.
- b. Please identify the amount of the 2008 spending requirement for line clearing that is related to one-time costs.
- c. If any of the stated 2008 costs are one time costs, please explain why Hydro One believes that these should continue to be part of the 2009 and 2010 budget.

63. Ref: Exhibit C1 Tab 2 Schedule 2 Page 30/Issue 3.2

Please provide the actual and budgeted number of kilometres of line clearing and brush control for each of the years 2004 to 2007. Please explain the reasons for any variances between the actual kilometres of line clearing and brush control and budget for each of the years requested.

**DEVELOPMENT OM&A**

64. Ref: Exhibit C1 Tab 2 Schedule 3 Page 2/Issue 3.1

- a. In regards to Table 1, please provide an explanation as to why the Data Collection, Engineering and Technical Studies costs grew by over 85% in 2007? Please identify and quantify the drivers for any variances between 2006 and 2007 spending. Please also explain why these expenditures are forecasted to remain at this level for the 2008 test year.
- b. Are any of the expenditures related to Development OM&A one-time costs?
- c. If any of the stated 2008 costs are one time costs, please explain why Hydro One believes that these should continue to be part of the 2009 and 2010 budget.

**BOARD STAFF INTERROGATORIES  
HYDRO ONE NETWORKS INC.  
2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

**CUSTOMER CARE OM&A**

65. Ref: Exhibit C1 Tab 2 Schedule 5 Page 3/Issue 3.1

Please provide the Total Customer Care cost per customer from 2002 to 2008.  
Please explain the reasons for the year-to-year variances.

66. Ref: Exhibit C1 Tab 2 Schedule 5 Page 11/Issue 3.1

The distribution related costs for customer care management are forecasted to be \$7.2 million in 2008. This represents an increase of \$3.1 million from 2006. Hydro One cites that the increase is due to a number of factors including: supporting the corporate objective of improved customer satisfaction; refining management practices associated with the Inergi contract to assist in raising service quality to customers; preparing for time of use billing related to the incorporation of smart meters.

Please provide a breakdown of the spending for the various factors listed above for the years 2006 through 2008. Please also explain the year-over-year variances and identify the drivers of these variances.

67. Ref: Exhibit C1 Tab 2 Schedule 5 Page 13/Issue 3.1

With regards to Service Enhancements, please provide a breakdown of the spending in the various activities listed in lines 7 through 11 for the years 2006 through 2008. Please also explain the year-over-year variances and identify the drivers of these variances.



**BOARD STAFF INTERROGATORIES  
HYDRO ONE NETWORKS INC.  
2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

**GENERAL – REGULATORY COSTS**

68. Ref: Exhibit C – Regulatory Costs/Issue 3.1

Please complete the table below with respect to regulatory costs:

Regulatory Cost Category	Ongoing or One-time Cost?	2006 Board Approved	2006 Actual	2007 (as of Dec 07)	% Change in 2007 vs. 2006	2008 Forecast	% Change in 2008 vs. 2007
1. OEB Annual Assessment							
2. OEB Hearing Assessments (applicant initiated)							
3. OEB Section 30 Costs (OEB initiated)							
4. Expert Witness cost for regulatory matters							
5. Legal costs for regulatory matters							
6. Consultants costs for regulatory matters							
7. Operating expenses associated with staff resources allocated to regulatory matters							
8. Operating expenses associated with other resources allocated to regulatory matters (please identify the resources)							
9. Other regulatory agency fees or assessments							
10. Any other costs for regulatory matters (please define)							

**EMPLOYEE COMPENSATION**

69. Ref: Exhibit C1 Tab 3 Schedule 1 and 2/Issue 3.6

On Page 1, Hydro One indicates that its primary human resource challenges are an aging workforce, world-wide scarcity of core skills in the industry, and a highly competitive labour market.

- a. Please describe Hydro One's plan to address its human resource challenges.

70. Ref: Exhibit C1 Tab 3 Schedule 2/Issue 3.6

The table at Exhibit C1/Tab 3/Schedule 2/Page 1 provides a breakdown of total salary and wages for 2004 to 2008. Please expand this table to include 2006 Board approved and actual amounts.

**BOARD STAFF INTERROGATORIES**  
**HYDRO ONE NETWORKS INC.**  
**2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

71. Ref: Exhibit C1 Tab 3 Schedule 2/Issue 3.6  
Please provide a breakdown of total employee costs charged to OM&A and to Capital for the years 2006 (Board approved and actual), 2007 and 2008.
72. Ref: Exhibit C1 Tab 3 Schedule 2/Issue 3.6  
On Page 1, Hydro One provides a breakdown of total salary and wages for 2004 to 2008. This table indicates that total incentive has increased from \$4.4M in 2006 to \$8.5M in 2008. Please provide the rationale (including drivers of this increase) and justification for the 93% increase.
73. Ref: Exhibit C1 Tab 3 Schedule 2/Issue 3.6  
On Page 1, Hydro One provides a breakdown of total salary and wages for 2004 to 2008. This table indicates that total base salary has increased from \$367.7M in 2006 to \$406.4M in 2008. Please provide the rationale (including drivers of this increase) and justification for the 11% increase.
74. Ref: Exhibit A-15-2 Attachment B/Issue 3.6  
Please comment on how Hydro One has used or intends to use the 2007 Comparison of Labour Rates and Overtime Policy study and what results it expects to achieve. Please also file any implementation plans that Hydro One may have in this regard.
75. Ref: Exhibit C1-3-2 Appendix "A"/Issue 3.6  
On Page 2, Hydro One provides a breakdown of total pension costs charged to OM&A and Capital. Please provide a revised table to include the years 2006 (Board approved and actual) and 2007.
76. Ref: Exhibit C1-3-2 Appendix "A"/Issue 3.6  
On Page 2, Hydro One states that its next actuarial valuation will be prepared as at December 31, 2006 and will be filed with the Financial Services Commission of Ontario (FSCO) in September 2007. Please file the actuarial valuation that was submitted to FSCO on September 2007 along with a copy of the FSCO report.

**BOARD STAFF INTERROGATORIES  
HYDRO ONE NETWORKS INC.  
2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

**COST EFFICIENCY AND SUPPLY CHAIN MANAGEMENT**

77. Ref: Exhibit C1 Tab 4 Schedule 2/Issue 3.1

On page 6, Table 1 presents “Total Incremental Cost Saving – Distribution.”

- a. Please provide tables for OM&A and capital expenditures that illustrate the cost savings initiatives and outline the description of the implementation plan for each initiative, costs, and cost savings realized for 2004 to 2008 period.
- b. Please clarify if Hydro One has offset net annual OM&A and capital expenditures for 2007 and 2008 by the amounts shown in Table 1
- c. Please quantify the total savings for each year 2004 to 2008 and show them as annualized productivity %.

78. Ref: Exhibit C1 Tab 4 Schedule 2/Issue 3.1

On page 9, Hydro One states, “Despite a projected 40% increase in Hydro One Networks Distribution and Transmission businesses’ work program expenditures between 2006 and 2008, whereas over this same period the regular staff count is expected to only have grown by 23% and total staff resources (regular and non-regular) by 34%. This is an indication that Hydro One is getting more work done without a corresponding increase in resource levels”.

- a. Please clarify if non-regular staff includes contract staff, but excludes external consultants, contractors, and outsourcing.
- b. If non-regular staff excludes external consultants, contractors, and outsourcing, please provide the percentage of increase in these resources between 2006 and 2008 for these work programs.

79. Ref: Exhibit C1 Tab 4 Schedule 2/Issue 3.1

On page 12, Hydro One states, “It is expected that the use of mobile work applications and the use of GIS information will increase field force productivity. By leveraging all the new data which implementation of the IT Architecture Strategy and the smart meters program will deliver, Hydro One will become an even more proactive company in managing its assets. The extent of these future efficiency and productivity improvements is not yet fully known; preliminary work is being carried out to assess how best to use integrated technology platforms.”

**BOARD STAFF INTERROGATORIES  
HYDRO ONE NETWORKS INC.  
2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

- a. Please clarify if Hydro One quantified the future efficiency and productivity improvements during the evaluation and selection of IT Architecture Strategy and Cornerstone program. Please describe the methodology for evaluation of the program and estimated pay-back period.
- b. If Hydro One did not quantify the future efficiency and productivity improvements during the evaluation and selection of IT Architecture Strategy and Cornerstone program, please identify the criteria that Hydro One used to assess and select the programs and the means by which the programs were justified. Please describe the methodology for evaluation of the program if the benefits are not quantified.
- c. Please clarify what the 'filed force productivity' means in terms of OM&A cost reduction and how its savings would reflect in cost reduction to the rate payers in 2008 and beyond.
- d. If "future efficiency and productivity improvements" mean financial benefits, please state if the financial gain is of one-time or ongoing nature and the years the savings are achieved.

80. Ref: Exhibit C1-4-1 Attachment B and Table 1/Issue 3.1

On page 1, Hydro One states, "The 2008 cost for Supply Chain services is \$26.5 million, with these costs allocated to work programs and projects through the material surcharge rate."

- a. Please identify how much of the \$26.5 million is attributed to Hydro One Distribution?
- b. Please identify any amounts attributed to the Hydro One Distribution that are one-time costs.

**SHARED SERVICES**

81. Ref: Exhibit C1 Tab 2 Schedule 6/ Issue 3.3

On page 3, Table 1, Hydro One provides "Allocated Distribution Shared Services and Other Costs." These costs were \$23.3 million and \$21.2 million in 2005 and 2006 respectively, and projected to increase to \$91.9 million in 2007 and \$66.9 million in 2008.

**BOARD STAFF INTERROGATORIES  
HYDRO ONE NETWORKS INC.  
2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

What are the reasons for the large increases in 2007 and 2008 compared to 2005 and 2006? What are the key drivers for the increase in 2007 and 2008 costs for each category listed in the table, i.e. Common Corporate Functions and Services, Asset Management, Information Management Services, Cost of Sales and Other Shared Services?

82. Ref: Exhibit C1 Tab 2 Schedule 6 and Exhibit A Tab 2 Schedule 2/ Issue 3.3

On page 5 of 7 of Exhibit A Tab 2 Schedule 2, for "Shared Services & Other Costs," a 2006 Board Approved amount of \$67.9 million is shown versus a 2006 Actual of \$21.2 million.

Please explain the variance in the context of Hydro One's 2007 and 2008 forecasts of these amounts of \$91.9 and \$66.9 million in this application, as shown in Exhibit C1 Tab 2 Schedule 6, Table 1. Please explain stating why the present forecast is likely to be correct given the variance to actual of the 2006 forecast, being \$47 million below the \$68 million 2006 Board approved and why this situation is not likely to recur in 2007 and 2008.

83. Ref Exhibit C1 Tab 2 Schedule 6/ Issue 3.4

Page 4, Table 2 provides a breakdown of "Shared Services and Other Costs." The total amount to be allocated between transmission and distribution is shown as \$148.5 million and includes shared services in the areas of "Common Corporate Functions and Services," "Asset Management," "Information Management Services," "Cost of Sales," and "Other Shared Services."

In Hydro One's recent transmission rate application, an equivalent table was presented in Exhibit C1 Tab 2 Schedule 5 Page 4. The version of this table in the updated February 23, 2007 evidence showed a total amount to be allocated for 2008 of \$233.0 million, which is \$84.5 million higher than is being incorporated in the distribution application. The major reason for this difference appears to be that the transmission application included customer care costs as a shared service and the distribution application does not. Please provide a complete explanation for this change including whether or not these costs are being recovered in a different manner through the present application and if so, how and what the amount of recovery is.

**BOARD STAFF INTERROGATORIES  
HYDRO ONE NETWORKS INC.  
2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

84. Ref: Exhibit C1 Tab 2 Schedule 6/ Issue 3.4

Page 6, Table 3 provides the 2008 allocation to Distribution of CCF&S Costs. Please state whether there have been any changes in the allocation percentages to distribution since the 2006 filing and, if so, please state what they are and provide an explanation and rationale for them.

85. Ref: Exhibit C1 Tab 2 Schedule 6/ Issue 3.3

Page 37, Table 13 provides a breakdown in the costs of the Asset Management Function. This table shows an increase in these costs, before allocation to distribution from \$93.8 million in the 2007 Bridge Year to \$118.9 in the 2008 Test Year, an increase of 27%. In Hydro One's recent Transmission rate filing, EB-2006-0501, Exhibit C1 Tab 2 Schedule 5, Page 42, updated February 23, 2007 these same costs were shown as \$97.5 million and \$96.4 million respectively. In this context, please explain the 27% increase that is contained in the present application.

86. Ref: Exhibit C1 Tab 2 Schedule 6/ Issue 3.3

On page 81, the discussion of the Capitalized Overhead Credit states that "The overhead credit has increased from the 2004 level due to the higher level of capital spending."

- a. Please confirm that this statement refers to the increase in this amount in 2004 from a reduction in OM&A expense of \$45 million to a reduction of \$59.8 million in 2006. If not, please state what increase it is referring to.
- b. In the context of the statement quoted above, please state why the amount of this credit is decreasing from \$59.8 million in 2006 to \$47.7 million in 2008 when capital expenditures are increasing.

87. Ref: Exhibit C1 Tab 2 Schedule 6/ Issue 3.3

On page 82, the Environmental Provision adjustment is discussed.

- a. Please state why this provision increased from \$7.1 million in 2005 to \$11.6 million in 2006 and then is forecast to drop to \$6.3 million and \$7.9 million in 2007 and 2008 respectively.
- b. Please provide a fuller explanation of the statement that "The resultant impact on OM&A expense of this environmental work is nil, since the

**BOARD STAFF INTERROGATORIES**  
**HYDRO ONE NETWORKS INC.**  
**2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

amortization expense is grouped with “Depreciation and Amortization” on the operating statement and the balance is transferred from OM&A to Depreciation expense.”

88. Ref: Exhibit C1 Tab 2 Schedule 6/ Issue 3.3

Page 83, Table 33 provides distribution deferred pension costs for the 2004 to 2008 period.

- a. Please state whether or not Hydro One’s pension plan was in a deficit or surplus position as of December 31, 2006
- b. Please explain why there is a zero amount shown for the 2007 Bridge and 2008 Test year for deferred pension credit.

89. Ref: Exhibit C1 Tab 2 Schedule 6/ Issue 3.3

Please provide for each of the 2006 historical, 2007 bridge and 2008 test years, the dollar amount of services purchased from non affiliates and the percentage amount of total expenses that this represents.

90. Ref: Exhibit C1 Tab 2 Schedule 6/ Issue 3.3

This section makes reference to a number of services, which are outsourced to non-affiliates, most notably Inergi LP, but also others such as Mercer Pension Administration System. Please provide for all services and products purchased from non-affiliates other than Inergi LP for the 2006 to 2008 period: (i) identity of each company transacting with Hydro One, (ii) summary of the nature of the activity transacted, (iii) annual dollar value in aggregate of transactions, and (iv) description of specific methodology used in determining the price.

91. Ref: Exhibit C1 Tab 2 Schedule 6/ Issue 3.3

Attachment “A” provides a summary of Hydro One Inergi CCF&S 2008 Costs. Please provide a more detailed description of the approaches which are described briefly in the column “Selection of Cost Driver.”

92. Ref: Exhibit C1 Tab 2 Schedule 6/ Issue 3.3

In this Exhibit, Hydro One discusses its shared services pricing and cost allocation methodology. Please provide an overview of the impact of this methodology in the following format for each of the 2006 historical, 2007 bridge and 2008 test years:

**BOARD STAFF INTERROGATORIES**  
**HYDRO ONE NETWORKS INC.**  
**2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

- I) Amount of expenses paid to affiliates for services rendered and the percentage amount this represents of total expenses.
- II) Amount of revenue received from affiliates for services provided and the percentage amount this represents of total revenue.
- III) Amount of expenses incurred related to the provision of services to affiliates and the percentage amount this represents of total expenses.

**TAXES**

93. Ref:Exhibit C2/Tab 4/Schedule 1/page1/ Issue 3.8

Hydro One has used a capital tax rate of 0.285%. The Ontario government has proposed to reduce this rate to 0.225% retroactive to January 1, 2007. It is likely that this rate will be substantively enacted sometime this spring.

- a. Will Hydro One recalculate its 2008 draft rate order to reflect this tax change?
- b. What will Hydro One do in its accounts to reflect the retroactive benefit of the lower capital taxes in 2007?

94. Ref: Exhibit C2/ Tab 6/ Schedule 1/Attachment A/ Issue 3.9

- a. The tax rate for 2008 is now 33.5%. Will Hydro One recalculate its 2008 draft rate order to reflect this tax change?
- b. Hydro One has provided tax information for 2004-2006 and for the test year 2008. The filing guidelines require a tax forecast to be provided for the 2007 bridge year as well.
- c. Please provide the 2007 bridge year tax forecast in the format of that for 2008 found at Exhibit C2/ Tab 6/ Schedule 1/Attachment A/page1.

95. Ref: Exhibit C2/ Tab 6/ Schedule 1/Attachment B/ Issue 3.9

- a. Please provide the Capital Cost Allowance (CCA) tax classes that Hydro One has used in the calculation of CCA for the smart metering activities. Please provide a schedule that shows the smart meter capital expenditures being added to rate base and how those costs map to the CCA tax classes for 2006, 2007 and 2008.
- b. For accounting purposes, stranded conventional meters are being written off over four years within the depreciation charge or through a reallocation



**BOARD STAFF INTERROGATORIES  
HYDRO ONE NETWORKS INC.  
2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

of accumulated depreciation. Please describe the tax treatment for stranded conventional meters that was used in 2006, 2007 and 2008.

**LOSS FACTORS**

96. Ref: Exhibit A/Tab 15/Schedule 3, Attachment A (Kinectrics study/July 27, 2007), Page viii, 2, 11/ Issue 1.6

The note below the table in Exhibit A/Tab 15/Schedule 3, Attachment A (Kinectrics study/July 27, 2007), Page viii, 2, 11, states that the new estimate of TLF includes a Supply Facilities Loss Factor (SFLF) of 1.0060 (i.e. 0.06%).

Please explain why the SFLF is significantly different from the industry norm of 1.0045.

97. Ref: Exhibit A, Tab 15, Schedule 3, p. 2/ Issue 1.6

Consistent with the directive referred to in Exhibit A/Tab 15/Schedule 3/page 2, please confirm if a budget and work plan for all cost-effective line-loss reduction suggestions contained within the Kinectrics study have been included in the application.

98. Ref: Exhibit G2, Tab 5, Schedule 2, Page 18; Exhibit G2, Tab 5, Schedule 1, Page 16/ Issue 1.6

Loss factors by customer class effective May 1, 2007 and May 1, 2008 for core retail customers of Hydro One are provided in Exhibit G2/Tab 5/ Schedule 2/page 18 and Exhibit G2/Tab 5/Schedule 1/page 16.

- a. Please confirm whether the "Factor" represents TLF.
- b. Please explain the reason for the changes in the factors for certain customer classes between 2007 and 2008.

99. Ref: Exhibit G2, Tab 6 to Tab 93/ Issue 1.6

Loss factors effective May 1, 2007 and May 1, 2008 for 88 acquired utilities are provided in Exhibit G2/Tab 6 to Tab 93. For the 2007 results, loss factors are provided in conventional format, i.e. SFLF along with each of DLF and TLF for customers less than 5,000 kW and customers greater than or equal to 5,000 kW.

**BOARD STAFF INTERROGATORIES**  
**HYDRO ONE NETWORKS INC.**  
**2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

For the 2008 results, loss factors are provided by customer class without distinction for the 5,000 kW threshold and clarification regarding DLF or TLF.

- a. Please explain the reason for not providing these loss factors in the conventional format.
- b. Please provide these loss factors in the conventional format.

100. Ref: Exhibit G1, Tab 10, Schedule 1. p.3 to 5/ Issue 1.6

A table of proposed TLFs for new customer classes is presented in Exhibit G1/Tab 10/Schedule 1/page 3 to page 5.

- a. Please confirm that the Total Loss Factors in the table on page 3 are inclusive of the Supply Facility Loss Factor that usually has the value 1.0045.
- b. Please provide a brief description of situations where the Total Loss Factor of 0.6% would apply to an express feeder (second paragraph on page 4), distinct from situations where the loss factor of the transformer at the station would apply (second paragraph on page 5).
- c. Please provide a description of the range of Total Loss Factors that are applied by Hydro One based on engineering studies as described in the final paragraphs of page 4 and page 5.

## **LOAD FORECAST**

101. Ref: Exhibit A/ Tab 14/ Schedule 3/ pages 1 and 12/ Issue 1.5

In Schedule 3, page 1, the Applicant explains that as a result of the weather normalization of its historical loads, the forecast assumes typical weather conditions based on the average of the last 31 years. In Schedule 3, page 12, the Applicant explains that its weather correction methodology uses 4 years of daily load and weather data to establish certain relationships.

- a. Please clarify and clearly differentiate between the respective uses of the 31-year-based and 4-year-based correction techniques,
- b. Please clarify if the 4-year-based correction is identical (apart from the number of years) to the 5-year-based correction referenced in the Board's

**BOARD STAFF INTERROGATORIES**  
**HYDRO ONE NETWORKS INC.**  
**2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

decision of the Applicant previous distribution rate case (RP-2005-0020/EB-2005-0378, Decision with Reasons, April 12, 2006, page 5),

- c. Please clarify the degree to which the Applicant believes it has taken account of possible climate changes through the correction techniques, and
- d. Please identify any observed differences between the Applicant's weather normalization methodology/techniques and the IESO's weather normalization methodology/techniques.

102. Ref: Exhibit A/ Tab 14/ Schedule 3/ page 2/ Issue 1.5

In Schedule 3, page 2, the Applicant states, "The methodology described in this exhibit is similar to Hydro One's 2006 Distribution Rate case (RP-2005-0020/EB-2005-0378)."

- a. Please explain any changes in the methodology used in the current application that have resulted from the Applicant's Board-ordered review of the methodology it uses for its transmission-related cases (EB-2006-0501, Decision with Reasons, August 16, 2007, page 88).
- b. Please explain any other changes (in addition to those identified in response (a.)) to the methodology that has been adopted since the 2006 distribution case, provide the reason(s) for these changes, describe the testing done and the results achieved that showed the changes improved the expected accuracy of the resulting forecast.
- c. Describe any planned or likely changes to further improve the methodology,
- d. Verify that in Table 1, the mean (1997-2006) "Variance for Plan Year" and "Variance for 2nd Year" values are in the order of -0.26% and -0.50% respectively,
- e. Describe any plans the Applicant has to compensate for the methodology's bias to underestimate the Bridge Year forecast by about one-quarter of one percent and the Test Year forecast by about one half of one percent, and
- f. Estimate the dollar effect on revenue at the proposed rates, if the actual load were to be 0.5% higher than forecast.

**BOARD STAFF INTERROGATORIES  
HYDRO ONE NETWORKS INC.  
2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

103. Ref: Exhibit A/ Tab 14/ Schedule 3/ page 3/ Issue 1.5

In Schedule 3, page 3, the Applicant explains that the methodology comprises a combination of elements that includes “mechanical adjustments to models commonly used in the forecasting business to include changes in ...”

- a. Please list, and describe as necessary, the elements to which mechanical adjustments may be applied,
- b. Please describe fully what is meant by “mechanical” adjustments; specifically, are these automated adjustments that the computer model will make using pre-defined decision rules and requiring no human intervention or are they adjustments sometimes referred to as “manual” adjustments that are implemented by the forecaster on an ad hoc basis?
- c. Please provide, in either case, the criteria used to make these mechanical adjustments and provide any other information necessary to fully explain this matter.

104. Ref: Exhibit A/ Tab 14/ Schedule 3/ page 5 to 7/ Issue 1.4

In Schedule 3, page 5, Hydro One states, “The load forecast in support of this application was prepared and released in April 2007 using economic information and forecasts that were available in early 2007.” Board staff understands that some of the key inputs to the forecast are those outlined in pages 6 and 7; specifically:

Item	2007 Growth	2008 Growth
Provincial GDP Forecast	1.7%	2.9%
Provincial Population Forecast	1.2%	1.2%
Provincial Housing Forecast	67,000 units	68,000 units
Commercial Output Forecast	2.3%	2.9%
Industrial Production Forecast	0.4%	3.0%

- a. Please confirm that Board staff have correctly summarized the items listed (including that 2007 manufacturing sector growth has been considered synonymous/representative of 2007 industrial production growth),
- b. Please list the actual 2007 growth rates for each of the five forecast items quoting the source(s) of the data and, where the complete year's data is not yet available, the most up-to-date data and the corresponding date(s) of issue,

**BOARD STAFF INTERROGATORIES  
HYDRO ONE NETWORKS INC.  
2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

- c. Please list the currently-available 2008 growth forecasts for each of the five forecast items utilizing the same sources as used for the filed application, and
- d. Please calculate the 2008 kWh forecast (before deducting for the impact of CDM) that would result from using the 2007 actual growth rates in b) and the updated forecast values in c) above.

105. Ref: Exhibit A/ Tab 14/ Schedule 3/ page 8/ Table 2/ Issue 1.5

In Schedule 3, page 8, Table 2, the Hydro One shows the load impact of CDM; specifically, for 2007 and 2008 the total impact is shown as 554 GWh and 770 GWh respectively. Hydro One noted that the CDM impact is the same as the 2007 CDM impact approved by the Board for Hydro One's Transmission Rate case (EB-2006-0501) issued on August 16, 2007. Board Staff note that the respective values quoted in the original August 15, 2007 filing of the current application were 747 GWh and 1,009 GWh.

- a. Please list the programs that saw a change in the anticipated 2007 and 2008 CDM impacts from when the original August 15, 2007 estimates were filed until the December 18, 2007 estimates were filed, the magnitude of the changes and the rationale for the changes, and
- b. Please clarify for each of the values shown in Table 2, the CDM impact as a result of Hydro One Distribution's own programs as distinct from programs implemented by other agencies such as federal and provincial governments, OPA and IESO.

106. Ref: Exhibit A/ Tab 14/ Schedule 3/ pages 10 and 20/ Issue 1.5

In Schedule 3, page 20, Table 4, the Applicant shows the 2007 forecasted load to be 41,046 GWh before deducting the impact of CDM and 40,493 after the impact of CDM. On page 10, the Applicant forecasts its 2007 customer growth to be approximately 11,000 (9,900 in the August 15, 2007 filing).

- a. Please state the Applicant's actual (non-weather corrected) 2007 GWh load and the weather corrected 2007 GWh load before deducting the impact of CDM,

**BOARD STAFF INTERROGATORIES  
HYDRO ONE NETWORKS INC.  
2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

- b. Please state the Applicant's actual (non-weather corrected) 2007 GWh load and the weather corrected 2007 GWh load after deducting the impact of CDM, and
- c. Please state the actual growth in customers in 2007 using the same approach (e.g. mid year, monthly average, etc.) that the forecast was based on.

107. Ref: Exhibit A/ Tab 14/ Schedule 3/ Appendix 3/ page 26/ Issue 1.5

In Schedule 3, Appendix 3, page 26, Hydro One presents the formula for residential energy consumption ("USE<sub>Res</sub>"). Due to a printing problem, the formula can not be read. Please provide the residential energy consumption ("USE<sub>Res</sub>") formula.

108. Re: Exhibit A / Tab 14 / Schedule 3 Appendix 1 – Monthly Econometric Model/ Issue 1.5

The model specification shown in Appendix 1 is described as follows:

$$LRTL = f(LGDPONT, LBPONT, D98Jan)$$

Where:

LRTL = logarithm of Distribution load,

LGDPONT = logarithm of Ontario GDP in constant 1997 dollars,

LBPONT = logarithm of Ontario residential building permits in constant dollar,

D98Jan = dummy variable to account for the load impact of 1998 Ice Storm, equals 1 in January 1998 and zero elsewhere,

The output parameters from the model are presented below. The State-Space (SS) estimated parameters are not associated with standard error and t-ratios (statistical relevance test).

Seasonal Factors	State-Space (SS) parameters:
A[1]	-0.134796
K[1]	-0.568914

Non-Seasonal Factors	SS parameters:
A[1]	0.531829
K[1]	-0.345868
GDPONT[-4]	0.0784784
BPONT[-9]	0.00440215

**BOARD STAFF INTERROGATORIES  
HYDRO ONE NETWORKS INC.  
2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

D98JAN	-0.0150467
--------	------------

R-squared = 0.989, R-squared corrected for mean = 0.989, Durbin-Watson Statistics = 2.31”.

- a. Please describe the “State-Space approach” of regression equation modeling;
- b. Please describe what econometric modeling Hydro One Networks has done for this equation and why it believes that the model specification chosen is preferred;
- c. Please define the variables A[1] and K[1];
- d. Please provide the monthly econometric model expressed mathematically in its full form showing all variables and parameters.

109. Ref: Exhibit A / Tab 14 / Schedule 3 Appendix 2 – Annual Econometric Model/ Issue 1.5

The annual econometric model is documented in Appendix 2 as follows:

$$\begin{aligned} \text{“LRTLTL} = & C(1) + C(2) * \text{LYPDPHH} + C(3) * (\text{LPELRES}(-1) - \text{LPGASRES}(-1)) \\ & + C(4) * \text{LCDD} + C(5) * \text{LHDD} + C(6) * \text{LRTLTL}(-1) - C(4) * C(6) * \text{LCDD}(-1) - \\ & C(5) * C(6) * \text{LHDD}(-1) + C(7) * \text{D99A} + C(8) * \text{TR} + C(9) * \text{TR}^2 \end{aligned}$$

Where:

LRTLTL = logarithm of Distribution load,

LYPDPHH = logarithm of Ontario personal disposable income per household in constant \$,

LPELRES = logarithm of electricity price for Ontario residential sector,

LPGASRES = logarithm of natural gas price for Ontario residential sector,

LCDD = logarithm of cooling degree days for Pearson International Airport,

LHDD = logarithm of heating degree days for Pearson International Airport,

D99A = dummy variable to account for annexation of retail customers by municipal utilities equals 1 after 1999 and zero elsewhere,

TR = a dummy variable to account for a shift in growth pattern of Distribution load, increases by 1 per year prior to 1989 and no increase afterwards,

TR2 = TR to power 2,

C(1) – C(9) = variable coefficients.

**BOARD STAFF INTERROGATORIES**  
**HYDRO ONE NETWORKS INC.**  
**2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

The estimated coefficients and associated statistics are presented below.

	Estimated Coefficient	Standard Error	t-ratio
C(1)	5.548910	1.273869	4.355949
C(2)	0.303905	0.119354	2.546245
C(3)	-0.055342	0.025059	-2.208471
C(4)	0.004952	0.007168	0.690828
C(5)	0.195571	0.043265	4.520272
C(6)	0.286776	0.103890	2.760383
C(7)	-0.020994	0.007506	-2.796974
C(8)	-0.100598	0.023221	-4.332256
C(9)	0.002619	0.000546	4.795182

R-squared = 0.995, Adjusted R-squared = 0.993, Durbin-Watson Statistic = 1.90.”

The estimated coefficient for LCDD (natural logarithm of Cooling Degree Days) has a very small estimate and has a t-statistic of 0.69. The small t-statistic indicates that, from a statistical test of confidence, the hypothesis that C(4) is equal to zero cannot be rejected. Please explain why LCDD is retained as an explanatory variable given its statistical insignificance and the small numerical value of the coefficient.

The annual econometric model has a double-log functional form, which is a standard one in econometrics. A double-log function form that is specified in its linear form has the characteristic that the parameters (coefficients) are constant elasticities and that the functional form, expressed in its pure (non-log) form, is a multiplicative relationship between the explanatory variables, each raised to the power of its elasticity. In other words,

$$\ln Y = \alpha + \beta \ln X_1 + \delta \ln X_2 + \varphi \ln X_3 + \varepsilon$$

is equivalent to:

$$Y = e^{\alpha} X_1^{\beta} X_2^{\delta} X_3^{\varphi} e^{\varepsilon}$$

The double-log functional form used in the annual econometric model means that heating degree days and cooling degree days, each raised to its corresponding elasticity, affect the distribution load estimate multiplicatively.



**BOARD STAFF INTERROGATORIES  
HYDRO ONE NETWORKS INC.  
2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

- a. Please explain the theoretical basis for heating degree days and cooling degree days to interact multiplicatively in this model.
- b. The model specification is also an autoregressive one, as the log of the previous year's distribution load, adjusted for heating degree days and cooling degree days, is a left-hand side variable.
- c. Please describe what econometric modeling Hydro One Networks has done for this equation and why it believes that the model specification chosen is preferred.
- d. Please describe what, if any, adjustments have been made to improve the model estimation due to the auto-regressive nature of the model specification.

110. Ref: Exhibit A / Tab 14 / Schedule 3 Appendix 3 – End-Use Model – Residential Sector/ Issue 1.5

The forecasting equation for the residential sector is described as follows:

“The residential energy forecast is determined by forecasting the number of accounts times appliance saturation rates and unit energy consumption expressed in the following equation:

$$USE_{Res} = \sum_i N_{i,j} * S_{i,j} * UEC_{i,j}$$

Where:

- $USE_{Res}$  is residential energy consumption
- N is the number of residential accounts
- S is the residential appliance saturation rate
- UEC is the unit energy consumption per end use
- I is the index for appliances (space heating, space cooling, water heater and base load)
- J is the index for customer types—year-round residential customers and seasonal residential customers”.

- a. Please provide the residential sector equation in its full mathematical expression, showing the functional form and all explanatory variables and coefficients.
- b. Please describe the estimation methodology used for the model coefficient estimates.

**BOARD STAFF INTERROGATORIES  
HYDRO ONE NETWORKS INC.  
2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

**COST OF CAPITAL**

111. Ref: Exhibit B1 Tab 1 Schedule 1, Section 2.0 – Capital Structure/ Issue 2.1

Hydro One Networks states that its “deemed capital structure for rate making purposes is 60% debt and 40% common equity. This capital structure was determined by the Ontario Energy Board as being appropriate for all distributors in its December 20, 2006 [Board Report].

Section 4.1 and Table 5 of the Board Report specified a transition, beginning in 2008, to the common deemed capital structure of 60:40 from the current Rate Base size-related deemed capital structure. For a distributor with a rate base over \$1 Billion, like Hydro One Networks, the transitional deemed capital structure for 2008 would be 62.5% debt (of which 58.5% would be long-term debt and a deemed 4.0% short-term debt component) and 37.5% equity.

- a. Please provide Hydro One Networks’ reasons for proposing a 60% debt and 40% equity structure for 2008 rates.
- b. Please provide the deemed capital structure approved by the Board for setting Hydro One Networks’ transmission rates in its most recent transmission rate application considered in EB-2006-0501.

112. Ref: Exhibit B2 Tab 1 Schedule 1 – Capital Structure/ Issue 2.1

Please re-submit the exhibit in the following format, for each of the years:

- a. 2004 actual
- b. 2005 actual
- c. 2006 Board-approved
- d. 2006 actual
- e. 2007 bridge; and
- f. 2008 test year.

Year

(1)  
\$

(2)  
%

(3)  
Rate (%)

(2) X (3)

Debt  
Short-term  
Long-term


**BOARD STAFF INTERROGATORIES  
HYDRO ONE NETWORKS INC.  
2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

<i>Total Debt</i>				
<b>Equity</b>				
Common Equity				
Preferred Shares				
<i>Total Equity</i>				
<b>Total Capital</b>	100%		Weighted Average Cost of Capital	

**REGULATORY ASSETS**

113. Ref: Ex A/Tab 9/Sch 2/ Issue 6.1

Please provide the 2007 and 2008 proforma balance sheets for Hydro One Distribution.

114. Ref: ExA/Tab17/Sch1 and ExhD/Tab4/Sch1/ Issue 6.1

Hydro One states that the interest rate used for Construction Work in Progress (CWIP) reflects the Board's letter of direction in EB-2006-0117, effective November 28, 2006.

- a. Did Hydro One Distribution implement the Board-prescribed interest rate, as per the Board's letter to LDCs dated November 28, 2006, for construction work in progress (CWIP) since May 1, 2006?
- b. If not, when did Hydro One implement the prescribed interest rate methodology? And, what is the impact on rate base, revenue requirement, and CWIP be if Hydro One implemented this decision as of May 1, 2006?

115. Ref: ExF/Sch1/Tab1// Issue 6.1

- a. Please list and provide a brief description of all outstanding deferral and variance accounts. This includes the deferral and variance accounts not being requested for disposition.
- b. Please provide the balances of all regulatory deferral and variance accounts, including those not being requested for disposition, for the period ending December 31<sup>st</sup>, 2006.

**BOARD STAFF INTERROGATORIES**  
**HYDRO ONE NETWORKS INC.**  
**2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

116. Ref: ExF1/Tab1/Sch1 and ExF1/T2/Sch1/ Issue 6.1

Hydro One is applying for disposition of regulatory variance accounts in ExF1/Tab1/Sch1/P2 and ExF1/T2/Sch1 /page1.

Provide the information as shown in the attached continuity schedule for regulatory assets and provide a further schedule reconciling the continuity schedule with the amounts requested for disposition on ExF1/Tab1/Sch1/Page 2 and ExF1/T2/Sch1/Page1. In the continuity schedule, please breakout the sub-accounts for 1508. Please note that forecasting principal transactions beyond December 31, 2006 and the accrued interest on these forecasted balances and including them in the attached continuity schedule is optional.

117. Ref: ExF1/Tab1/Sch1/ Issue 6.1

Hydro One stated that the amount related to the elimination of the Large Corporation Tax (LCT) was charged to account 1592 from May 1, 2006 to April 30, 2007. In July 2007, the Board released the 'APH Frequently Asked Questions' detailing how utilities were expected to account for the retroactive repeal of the LCT.

- a. To what account did Hydro One book the period January 1<sup>st</sup> 2006 to April 30<sup>th</sup> 2006 repeal of the LCT?
- b. If Hydro One has not recorded for the repeal of the LCT, please explain why?
- c. Please provide a table similar to Exhibit F1/Tab1/Schedule1 page 5 Distribution Tax Rate Changes Account Balances to reflect the amount related to the elimination of the LCT from January 1<sup>st</sup>, 2006 to April 30<sup>th</sup>, 2007 into account1592.

118. Ref F1/Tab2/Sch1/ Issue 6.1

Usual practice is to recover regulatory deferral and variance accounts through rate riders, instead of applying the balance against the revenue requirement. Please provide allocations and rate riders for each regulatory deferral and variance account being requested for disposition.

**BOARD STAFF INTERROGATORIES**  
**HYDRO ONE NETWORKS INC.**  
**2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

119. Ref: ExF1/Tab1/Sch1/ Issue 6.1

Usual practice in the electricity sector is to use audited numbers for the last fiscal years as the basis for balances in the deferral and variance accounts for disposition, with interest forecasted up to the start of the new rate year.

- a. Please provide the regulatory precedent for principal transactions being forecasted beyond December 31, 2006 for accounts requested for disposition.
- b. Please recalculate the appropriate rate rider schedules using the December 31, 2006 balances with interest forecasted to April 30, 2008.

120. Ref: ExF1/Tab1/Sch1/ Issue 6.1

Tables 5, 6 and 7 at Exhibit F1/Tab 1/Schedule 1 relate to "Net Revenue Requirement to be Recovered".

- a. Please provide in one consolidated table the Net Revenue Requirement to be Recovered for minimum functionality covered in table 5 and 7 in accordance with Appendix E of the EB-2007-0063 Decision on Smart Meters. Please also include in this table the smart metering capital that the return on equity and interest expense is being calculated from as well as the capital structure being relied on in these calculations.
- b. Is Hydro One currently using accounts 1555 and 1556?
- c. Please identify any deviations from the Board's guidance with respect to these accounts.
- d. Is Hydro One planning to continue these accounts after April 30<sup>th</sup>, 2008?
- e. Is Hydro One planning on continuing to charge the rate rider associated with Smart Metering. If so, why?
- f. Please provide a detailed calculation of revenue requirement for Table 6, Smart Meter Exceeding Minimum Functionality Under-Recovery

121. Ref: ExF1/Tab1/Sch1/ Issue 6.1

Hydro One is requesting to dispose of the RSVA Provincial Benefit account.

- a. Please confirm that this refers to account 1588 sub-account Global Adjustment according to the USoA. If it is not, then please identify in which account this is being tracked.

**BOARD STAFF INTERROGATORIES  
HYDRO ONE NETWORKS INC.  
2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

- b. Is Hydro One proposing to clear only the sub-account and not clear the entire balance in account 1588 RSVA Power?

122. Ref: ExF/Tab1/Sch6/ Issue 6.1

Hydro One is proposing to refund the deferral and variance accounts to customers over a period of 4 years.

- a. What is the regulatory precedent for having a greater than three year period for the rate riders, seeing as the company may be rebased in 2011?
- b. Please provide a schedule identifying the rate riders associated with the disposition of the deferral and variance accounts over a one, two and three year periods. Please show all relevant calculations.

123. Ref: ExhibF1/Tab3/Schedule1/ Issue 6.2

Hydro One is requesting a new deferral and variance account for the Pension Cost Differential.

- a. Please provide the justification for this request, particularly identifying, when the actuarial valuation was prepared as at December 31, 2006, and when it was filed with FSCO and included in forecasted rates.
- b. What is the proposed methodology for recording pension costs into this account (cash or accrual)? If Hydro One is proposing a change to the accrual method, is the company also proposing to record the difference between the expense embedded in rates and the accrual expense as per the audited financial statements, into this account?
- c. In Hydro One's view what would the impact of its proposal be on the IRM 3 mechanism?
- d. Can Hydro One identify any regulatory precedent in support of its proposal?
- e. Please provide an estimate of the variance to be recorded in this account, if any.
- f. What account number does Hydro One propose to use in the USOA?
- g. What are the journal entries to be recorded?
- h. When does Hydro One plan to ask for its disposition?
- i. How does Hydro One plan to allocate this amount by rate class?

**BOARD STAFF INTERROGATORIES**  
**HYDRO ONE NETWORKS INC.**  
**2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

- j. What new or additional information is available since the December 18, 2007 filing of this application that would improve the Board's ability to make a decision on this request?

124. Ref: ExhibF1/Tab3/Schedule1/ Issue 6.2

Hydro One is requesting for a new deferral and variance account related to the OEB Cost Differential.

- a. What is the regulatory precedent for the collection of each of the identified costs proposed to be included in this deferral account?
- b. What is the justification for this account?
- c. What account number does Hydro One propose to use in the USoA?
- d. What are the journal entries to be recorded?
- e. If the costs or fees are not known, what would be the basis of the approval to record these amounts in a deferral account?
- f. What new or additional information is available that would improve the Board's ability to make a decision on this request?

125. Ref: ExhibF1/Tab3/Schedule1/ Issue 6.2

Hydro One is requesting for a new deferral and variance account for the Bill Impact Mitigation.

- a. What is the regulatory precedent for the collection of the difference between the Hydro One requested revenue requirement and the distribution rates from the application of the Cost Allocation for Electricity Distributors report in this proposed deferral account?
- b. What is the justification for this account?
- c. What account number does Hydro One propose to use in the USoA?
- d. What are the journal entries to be recorded?
- e. Please provide a continuity schedule of the incentive rate years outlining expected transactions into this variance account if approved.
- f. What new or additional information is available that would improve the Board's ability to make a decision on this request?

**BOARD STAFF INTERROGATORIES  
HYDRO ONE NETWORKS INC.  
2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

**SMART METERS**

126. Ref: Exhibit C1 /Tab 2 /Schedule 2/ Issue 8.1

On page 27, Hydro One indicates that “minimum functionality” OM&A smart meter costs for 2007 and 2008 are \$6.2 million and \$5.8 million respectively.

- a. Does the 2007 amount of \$6.2 million for OM&A smart meter expenditures represent actual spending? Please confirm.
- b. Is the amount of \$6.2 million for 2007 consistent with the amount of \$8.366 million for 2006 and up to May 31, 2007 which was approved by the Board in EB-2007-0063? If not, please provide the 2007 amount which would have been consistent with the \$8.366 million for 2006 and up to May 31, 2007 and explain fully the reason for the difference. Please provide the breakdown of the \$8.366 million smart meter OM&A cost, which was approved by the Board in the combined proceeding, for each of 2006 and for the period January 1 to May 31, 2007.

On page 27, Hydro One states that the following work is included as part of “minimum functionality”:

- o Maintaining and operating hardware, software and software licences associated with the advanced metering control computer (AMCC);
  - o Telecommunication charges associated with operating the local area networks (LANs) and wide area network (WAN); and
  - o Maintaining and operating smart meters and network devices that have been placed into service.
- c. Please provide a breakdown of the proposed \$6.2 million and \$5.8 million “minimum functionality” smart meter OM&A costs for 2007 and 2008 for the above mentioned three work categories. Please also provide, for each work category, the costs for labour, material, contracts, and other identifiable categories.

On page 27, Hydro One states “Incremental functionality activities associated with effective use of the smart meters to provide time-differentiated billing to customers and provide Hydro One the ability to leverage its Advanced Metering Infrastructure (AMI) system for other business benefits, which account for \$0.0



**BOARD STAFF INTERROGATORIES**  
**HYDRO ONE NETWORKS INC.**  
**2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

million and \$3.9 million in 2007 and 2008 respectively, include the following work:

- Managing, developing and implementing business process re-design (e.g. manual to automated meter reading for on-cycle and off-cycle reads), change management (including staff training) and customer communication related work;
  - Responding to a higher number of customer inquiries as a result of pre- and post-installation of smart meters on customer premises; and
  - Maintaining the changes required to the CIS system (new processes, workflow and tariffs) and the systems and interfaces necessary to integrate to the AMCC and the IESO's meter data management and meter data repository (MDM/R)."
- d. Please provide a breakdown of the proposed \$3.9 million "incremental functionality" OM&A smart meter cost for 2008 for the above mentioned three work categories. Please also provide, for each work category, the costs for labour, material, contract, and other identifiable categories.
- e. Please indicate whether the above mentioned activities will result in the hiring of extra staff. If so, please provide the FTE and the estimated cost for the hiring of extra human resources for each category.

On page 28, Hydro One states: "Spending on smart meter program contributes to lower costs in other program areas. In addition to the estimated savings of \$2.8 million in customer retail meter maintenance costs resulting from reduced meter testing and replacement due to the Measurement Canada dispensation, as discussed in Section 2.3.1 of this exhibit, there are also estimated savings of \$1.4 million in 2008 as a result of reduction in the number of manual meter reads related to the smart meter program, as discussed in Section 2.1.2 of Exhibit C1, Tab 2, Schedule 5."

And on page 25, under Section 2.3.1, Hydro One states: "To avoid inefficiencies which would result from the testing and verification of installed meters, followed by their near term replacement by smart meters, Hydro One Distribution received a dispensation in 2006 from Measurement Canada which allows meters coming due for verification from 2008 through 2010 to remain in place without verification."

**BOARD STAFF INTERROGATORIES**  
**HYDRO ONE NETWORKS INC.**  
**2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

- f. Please indicate whether the estimated savings of \$2.8 million in customer retail meter maintenance costs resulting from reduced meter testing and replacement due to the Measurement Canada dispensation applies only to test year 2008. If not, please provide the amounts of savings for each year from 2008 through 2010.
- g. Please explain whether the reduction in the number of manual meter reads related to the smart meter program will result in the reduction of human resources and/or contract costs in the area of meter reading. If so, please indicate the number of reductions in employees and/or contract costs as a result of the reduction in the number of the manual reads for each year from 2008 to 2010.
- h. Refer Ex C1/T2/S2/S4/S5/S6 - Please provide a numerical table for OM&A that would show for example, sustaining OM&A, development OM&A, customer service expenses, and any other applicable breakdown to summarize for 2006, 2007 and 2008 the various elements of smart meter OM&A expenses applied for in this application.

127. Ref: Exhibit D1 /Tab 3 /Schedule 2/ Issue 8.2

On page 23 under Table 6, Hydro One presents the following smart meter capital expenditure amounts:

- 2006 = \$14.1 million
  - 2007 = \$76.7 million
  - 2008 = \$164.8 million
- 
- a. Please provide a continuity statement for smart meter gross fixed assets, accumulated depreciation, and net fixed assets, indicating the amounts for additions, retirements, depreciation and balances for December 31, 2006, May 31, 2007, December 31, 2007, April 30, 2008 and December 31, 2008.
  - b. Please explain whether all of the \$14.1 million for 2006 was included in the \$21.799 million capital cost for the period 2006 to May 31, 2007 which was approved by the Board on August 8, 2007 in the combined proceeding EB-2007-0063. If not, please provide a breakdown of “approved” and “not approved” amounts for 2006 smart meter capital expenditure.

**BOARD STAFF INTERROGATORIES**  
**HYDRO ONE NETWORKS INC.**  
**2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

- c. In its December 18, 2007 filing, Hydro One had indicated that the smart meter capital expenditure forecast amount for 2007 was \$118.6 million instead of the \$76.7 million per February 20, 2008 filing. Please explain whether the reduction of \$41.9 million capital expenditure in 2007 was the result of a reduction in smart meter installations which was forecasted to be 212,000 for 2007 on page 29 of the December 18, 2007 filing. If so, please provide the revised number of smart meter installations for 2007 and explain fully, in view of the reduction in smart meter installations in 2007, whether Hydro One will be able to install 370,000 smart meters in 2008 as indicated on page 29 of its filing.
- d. Please complete the following table to calculate the unit capital cost for 2007 and the year/year percentage changes for unit capital costs. Please explain fully the changes in unit capital costs for each year:

	Pg 26 & 29:  Number of Smart Meters Installed	Table 6 [Pg 23]: Smart Meter Capital Expenditure Amounts	Capital Expenditure Per Unit	Year / Year [i.e. 2007/2006 & 2008/2007] Percentage Change For Per Unit Capital Cost
2006	28,000	\$14,100,000	\$503.57	
2007	???,???	\$76,700,000	\$???.??	??.%
2008	370,000	\$164,800,000	\$445.41	??.%

On page 27, Hydro One indicates that the capital expenditure amounts associated with “minimum functionality” are \$64.2 million and \$136.5 million in 2007 and 2008 respectively.

- e. Please complete the following table to calculate the unit capital cost for 2006 & 2007 and the year/year percentage changes for unit capital costs with respect to “minimum functionality”. Please explain fully the changes in unit capital costs for each year:

	Pg 26 & 29:	Pg 27:		Year / Year [i.e. 2007/2006]
--	-------------	--------	--	---------------------------------

**BOARD STAFF INTERROGATORIES**  
**HYDRO ONE NETWORKS INC.**  
**2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

	Number of Smart Meters Installed	Smart Meter Capital Expenditure Amounts for Minimum Functionality	Capital Expenditure Per Unit for Minimum Functionality	& 2008/2007] Percentage Change For Per Unit Capital Cost
2006	28,000	\$??,???,???	\$???.??	
2007	???,???	\$64,200,000	\$???.??	??.%
2008	370,000	\$136,500,000	\$368.92	??.%

On page 27, Hydro One stated that the activities associated with the government's regulations concerning minimum functionality include the following work:

- Installing additional smart meters and advanced metering communication devices ("AMCD");
  - Building and expanding the advanced metering regional collector ("AMRC"), and underlying networks to accommodate an increasing number of meters coming on-stream; and
  - Commissioning and placing into service, hardware and software for the advanced metering control computer ("AMCC") to enable it to communicate and transmit quality meter data to and from the meter data management and meter data repository (MDM/R) and the Company's CIS.
- f. Please provide a breakdown, for both 2007 [\$64.2 million] and 2008 [\$136.5 million], of the proposed "minimum functionality" smart meter capital costs for the above mentioned three work categories of 1), 2), and 3). Please provide, for each category, the costs for labour, material, contract, and other identifiable categories.

On page 27, Hydro One stated that the capital expenditure amounts associated with "incremental functionality" are \$12.5 million and \$28.3 million in 2007 and 2008 respectively.

- g. Please complete the following table to calculate the unit capital cost for 2006 & 2007 and the year/year percentage changes for unit capital costs

**BOARD STAFF INTERROGATORIES**  
**HYDRO ONE NETWORKS INC.**  
**2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

with respect to “incremental functionality”. Please explain fully the changes in unit capital costs for each year:

	Pg 26 & 29:  Number of Smart Meters Installed	Pg 27: Smart Meter Capital Expenditure Amounts for Incremental Functionality	Capital Expenditure Per Unit for Incremental Functionality	Year / Year [i.e. 2007/2006 & 2008/2007] Percentage Change For Per Unit Capital Cost
2006	28,000	\$??,???,???	\$??.??	
2007	???,???	\$12,500,000	\$??.??	??.??%
2008	370,000	\$28,300,000	\$76.49	??.??%

On page 27, Hydro One stated that activities associated with “Incremental functionality” include the following work:

- Upgrades to our CIS system to provide for Time of Use billing and related required settlement changes. This aspect of the Smart Meter program is rooted in the government’s desire and directive to create a conservation culture of which time of use rates are an integral part;
- Integration of the end to end systems including business process redesign. This integration ties the AMI systems implemented under minimum functionality with the IESO’s MDMR and Hydro One’s CIS system to allow the collection of time differentiated consumption data required for TOU billing; and
- The added cost of super capacitors in meters and batteries in the regional collectors (AMRC) that provide for real time outage reporting after and during loss of power. Having the ability to pin point outages and tie this information to our outage management system has the potential to increase customer service and reduce costs. When outages occur, especially during a major storm, there are instances where faults and damage are “nested”. In these situations, without the knowledge of the state of individual services, it takes longer to locate outages and it is possible for crews to fix a problem and leave the area only to return to fix other problems downstream. This inefficient and extends outage times. Since Hydro One is changing all its

**BOARD STAFF INTERROGATORIES**  
**HYDRO ONE NETWORKS INC.**  
**2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

meters by 2010, this provides a good opportunity to deploy this functionality effectively.

- h. Please provide a breakdown, for both 2007 [\$12.5 million] and 2008 [\$28.3 million], of the proposed “incremental functionality” smart meter capital costs for the above mentioned three work categories of 1), 2), and 3). Please provide, for each category, the costs for labour, material, contract, and other identifiable categories.
- i. Please comment on whether it is appropriate for Hydro One to charge the “added cost of super capacitors in meters and batteries in the regional collectors (AMRC) that provide for real time outage reporting after and during loss of power” to smart meter capital, since the added cost of super capacitors in meters and batteries in AMRCs are not listed among the items qualifying for “incremental functionality” costs in the 3rd paragraph of page 7 of the combined decision EB-2007-0063 [and outside of the box titled “Advanced Metering Infrastructure (AMI)” of the diagram attached as Appendix “D” to this decision]. If it is believed by Hydro One to be appropriate, please explain fully why.
- j. Hydro One states “Having the ability to pin point outages and tie this information to our outage management system has the potential to increase customer service and reduce costs.” Please indicate whether Hydro One has undertaken a study to determine these reduced costs. If so, please indicate the nature of these cost reductions and provide the estimated amount of savings that will flow from these reduced costs and to which account[s] these savings would be applied. Please explain why Hydro One is attributing the savings to these accounts.

On page 28 [of Exhibit D1 /Tab 3 /Schedule 2], Hydro One justifies the engagement of Capgemini for project management by stating, “Due to scope, complexity and specialized nature of the above tasks, the project management services and operation of a project management office (PMO) is provided by Capgemini. Capgemini was selected as the system integrator for Hydro One’s smart meter program through a competitive RFP process in 2005. Although Hydro One is providing overall direction to Capgemini, the project management services and PMO are typically provided by the system integrator and is not a role that Hydro One is able to resource internally. Additional details on

**BOARD STAFF INTERROGATORIES**  
**HYDRO ONE NETWORKS INC.**  
**2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

Capgemini's project management function are also provided as part of the discussion in Exhibit F1, Tab 1, Schedule 1 on smart meter Regulatory Asset accounts."

On page 10 of "Exhibit F1 /Tab 1 /Schedule 1", Hydro One lists the following 12 work streams for which the program management function provides full PMO services:

- Meter installation and field services;
- Commissioning of head-end systems (advanced metering control computer, or "AMCC", for 1.2 million meter points);
- Network Engineering;
- Integration of AMCC to MDMR to Hydro One's CIS;
- Billing and customer care;
- Settlements (retail and wholesale impact assessment);
- Customer Contact Centre (call centre to handle meter installation and TOU customer enquiries);
- CIS upgrade for TOU rates;
- New systems – data and synchronization gateway and exception management;
- Integrated business process design for moving from manual meter reading to an advanced metering regional collector (AMCR);
- Infrastructure Management (managing the procurement and implementation of computer hardware required for AMCCs, Integration, and TOU upgrades);
- Project management and tracking;

- k. Please explain the specific nature of the services that the program management function provides to "meter installation and field services" shown under 1) above. Please explain why the program management functions required for meter installation and field services cannot be fulfilled internally by Hydro One's existing management function for meter installation and field services. Please fully explain why Hydro One uses the services of Capgemini for this purpose.
- l. Please explain the specific nature of the services that the program management function provides to "billing and customer care" shown under 5) above. Please explain why the program management function required for billing and customer care cannot be fulfilled internally by Hydro One's

**BOARD STAFF INTERROGATORIES**  
**HYDRO ONE NETWORKS INC.**  
**2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

existing management function for billing and customer care. Please fully explain why Hydro One uses the services of Capgemini for this purpose.

- m. Please explain why the program management function required for Customer Contact Centre [shown under 7) above] to handle meter installation and TOU customer enquiries cannot be fulfilled internally by Hydro One's existing management function for customer contact. As explained by Hydro One in "Exhibit G1 /Tab 9 /Schedule 1", Hydro One was involved in a pilot TOU program as part of Conservation and Demand Management programs. Please explain why the management function required to handle TOU customer enquiries is not being handled by Hydro One's human resources who handled the pilot TOU program. Please fully explain why Hydro One uses the services of Capgemini for managing and handling meter installations and TOU customer enquiries.
- n. Please explain the specific nature of the services that the program management function provides to "CIS upgrade for TOU rates" shown under 8) above. Please comment on whether or not the existing CIS system has already been upgraded for TOU rates in view of the pilot TOU program which was initiated by Hydro One as part of a CDM program. Please fully explain why Hydro One uses the services of Capgemini for managing the CIS upgrade for TOU rates.

128. Ref: Exhibit F1 /Tab 1 /Schedule 1/ Issue 8.3

On page 2 under "Table 2: Distribution – Regulatory Assets Requested for Approval", Hydro One provides a summary of the following regulatory asset accounts [including three categories of smart meter variance accounts] requesting the disposition of their May 1, 2006, December 31, 2006, December 31, 2007, and April 30, 2008 balances:

- o OEB Cost Account;
  - o Tax Changes Account;
  - o Retail Settlement Variance Accounts;
  - o Smart Meter Minimum Functionality Under-Recovery to May 31, 2007;
  - o Smart Meter Exceeding Minimum Functionality Under-Recovery; and
  - o Smart Meter Minimum Functionality Under-Recovery between June 1, 2007 and April 30, 2008.
- a. Please confirm whether the disposition of the December 31, 2006, December 31, 2007, and April 30, 2008 balances for the three smart meter



**BOARD STAFF INTERROGATORIES**  
**HYDRO ONE NETWORKS INC.**  
**2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

variance sub-accounts mentioned above will be part of the disposition of all the regulatory asset accounts shown above and Hydro One is seeking to have their disposition through the implementation of only one regulatory asset rate rider for each rate class as appropriate [i.e. without separate rate riders for smart meter sub-accounts]. Please provide the rate rider amounts for each of the above three categories of smart meter sub-accounts.

- b. Please provide the table for Appendix E showing in detail how the revenue requirement amounts of \$6.1 million, \$10.6 million, and \$11.7 million for December 31, 2006, December 31, 2007, and April 30, 2008, respectively are derived.
- c. Has Hydro One followed the Board's guidance on the use of the smart meter main account 1555 – smart meter capital and recovery offset variance account, and main account 1556 – smart meter OM&A variance account in 2007 and for 2008? What sub-accounts has Hydro One used under these main accounts 1555 and 1556?
- d. Has Hydro One applied to clear the balances in these various main and sub-accounts of 1555 and 1556 in this application? If so, please provide the evidence references that demonstrate how Hydro One has accumulated costs in the various accounts and how each component is supported to clear the balances in 1555 and 1556 to fixed assets, expense, income, etc.
- e. If not, please provide a full description of how Hydro One has accounted for the capital expenditures, Capgemini contract costs, transfers to the meter fixed asset accounts, computer system software and hardware costs, meter heads, all additional equipment used in the installation of the AMI, incremental OM&A associated with smart metering, and depreciation in 2006, 2007 and 2008. How were the Capgemini contract costs assigned to the various asset cost pools?
- f. Please describe the interest carrying charge assumptions Hydro One has made for main accounts 1555 and 1556 and all applicable sub-accounts under these main accounts. Please provide the calculations of the interest recovery in 2006, 2007 and 2008 that Hydro One believes it is entitled to with respect to capital costs, OM&A and depreciation recorded in accounts 1555 and 1556.
- g. Has Hydro One claimed both (a) the short-term interest carrying charges on the capital component of account 1555; and (b) the long-term interest, used in the calculation of revenue requirement on the same assets? Amounts

**BOARD STAFF INTERROGATORIES  
HYDRO ONE NETWORKS INC.  
2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

removed from the 1555 recovery offset variance sub-account, used to record rate adders, is based on a return on rate base methodology.

On page 6 & 7, Hydro One states: "Table 5 below details the revenue requirement (net of revenue received) related to smart meter minimum functionality up to May 31, 2007 that Hydro One is requesting recovery for in this proceeding. The revenue requirement was calculated based on the approach illustrated in Appendix E of the decision for proceeding EB-2007-0063."

- h. Please provide the smart meter rate adder amounts that would clear the "Net Revenue Requirement to be Recovered" amounts of \$3.6 million, \$5.8 million, and \$6.9 million for December 31, 2006, December 31, 2007, and April 30, 2008.
- i. Please provide the smart meter rate adder amounts that would clear the "Net Revenue Requirement to be Recovered" amounts of \$3.6 million, \$5.8 million, and \$6.9 million for December 31, 2006, December 31, 2007, and April 30, 2008.
- j. Please confirm whether the revenue requirement amounts related to smart meter minimum functionality up to May 31, 2007 are with respect to the 62,914 smart meter installations up to May 31, 2007 approved in the Board's combined proceeding EB-2007-0063. If not, please provide the actual number of smart meter installations up to May 31, 2007 and explain fully the difference between this number and 62,914.
- k. Please confirm whether the April 30, 2008 net fixed asset balance associated with the variance sub-account "smart meter minimum functionality up to May 31, 2007" will be incorporated into the rate base as of May 1, 2008. If so, please provide the gross fixed asset, accumulated depreciation and net fixed asset amounts for May 1, 2008.

Under the Section "2.4 Smart Metering Expenditures Exceeding Minimum Functionality" and at the bottom of page 8, Hydro One presents in "Table 6: Distribution – Smart Meter Exceeding Minimum Functionality Under-Recovery" the revenue requirement amounts of \$0.6 million, \$3.4 million, and \$5.7 million for December 31, 2006, December 31, 2007, and April 30, 2008, respectively.

**BOARD STAFF INTERROGATORIES**  
**HYDRO ONE NETWORKS INC.**  
**2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

- l. Please provide a table showing in detail how the above mentioned revenue requirement amounts for December 31, 2006, December 31, 2007, and April 30, 2008 are derived.
- m. Please provide the smart meter rate adder amounts that would clear the "Revenue Requirement" amounts of \$0.6 million, \$3.4 million, and \$5.7 million for December 31, 2006, December 31, 2007, and April 30, 2008.
- n. Please indicate the number of smart meter installations and the period during which these smart meters were installed with respect to "Smart Metering Expenditures Exceeding Minimum Functionality".
- o. Please confirm whether the April 30, 2008 net fixed asset balance associated with the variance sub-account "Smart Metering Expenditures Exceeding Minimum Functionality" will be incorporated into the rate base as of May 1, 2008. If so, please provide the gross fixed asset, accumulated depreciation and net fixed asset amounts for May 1, 2008.

Under the Section "2.5 Smart Metering Minimum Functionality Expenditures between June 1, 2007 and April 30, 2008" and at the bottom of page 11, Hydro One presents in "Table 7: Distribution – Smart Meter Minimum Functionality Under-Recovery between June 1, 2007 and April 30, 2008" the revenue requirement amounts of \$11.3 million and \$21.4 million for December 31, 2007 and April 30, 2008, respectively.

- p. Please provide a table showing in detail how the above mentioned revenue requirement amounts for December 31, 2007 and April 30, 2008 are derived.
- q. Please provide the smart meter rate adder amounts that would clear the "Net Revenue Requirement to be Recovered" amounts of \$3.7 million and \$9.4 million for December 31, 2007 and April 30, 2008.
- r. Please confirm whether the number of smart meter installations for "Smart Metering Minimum Functionality Expenditures between June 1, 2007 and April 30, 2008" represent the installations for the period between June 1, 2007 and April 30, 2008 as well. If not, what is the period? Please provide the number of smart meter installations for this category.
- s. Please confirm whether the April 30, 2008 net fixed asset balance associated with the variance sub-account "Smart Metering Minimum Functionality Expenditures between June 1, 2007 and April 30, 2008" will be incorporated into the rate base as of May 1, 2008. If so, please provide the

**BOARD STAFF INTERROGATORIES  
HYDRO ONE NETWORKS INC.  
2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

gross fixed asset, accumulated depreciation and net fixed asset amounts for  
May 1, 2008.

**COST ALLOCATION AND RATE DESIGN**

**LV COSTS**

129. Ref: Exhibit G2 / Tab 1 / Schedule 1 / Attachment A / p. 3 of 134/Issue 3.1

There is no amount entered for “Approved Low Voltage Wheeling Adjustment” at Step 8 of Sheet I3 TB Data. Please provide Hydro One’s budgeted amount for charges paid to host distributors? Please also identify where is this category of cost included in the budget, and how is it allocated to the customer classes?

130. Ref: Halton Hills Hydro Inc. 2008 EDR Application EB-2007-0696, Round 2 Board staff Interrogatory No 7/ Issue 3.1

The host distributor’s evidence is that Hydro One requested changes to its system, with the effect that Halton Hills Hydro Inc no longer needs a wheeling charge. Part of the interrogatory and the response in the reference are excerpted for convenience:

“Did Halton Hills Hydro apply for wheeling rates as part of its 2006 application? If not, why has Halton Hills Hydro not applied for such rates as directed in the (RP-2004-0153/EB-2004-0235) decision and order?

Halton Hills Hydro Inc. did not apply for wheeling rates as part of its 2006 application. Effective on, or about, May 1, 2006 at the request of Hydro One Networks Inc., Halton Hills Hydro Inc. made changes to the distribution system removing the necessity for calculating wheeling charges. At that time, Hydro One Networks Inc. became a GS 1,000 to 4,999kW commercial class customer of Halton Hills Hydro Inc. Therefore, due to this occurrence, Halton Hills Hydro Inc. did not file a request to create a “separate wheeling power rate class”.

**BOARD STAFF INTERROGATORIES  
HYDRO ONE NETWORKS INC.  
2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

- a. Please confirm that Hydro One had earlier requested that Halton Hills should conduct a cost of service study and develop a separate wheeling rate (RP-2004-0153/EB-2004-0235).
- b. Please confirm that Hydro One made the request for changes to the distribution system, as described in the response to the interrogatory, and that the change in status from embedded distributor to General Class customer was an intended outcome of the request.
- c. If both a) and b) are confirmed, please explain the rationale for the change to Hydro One's request, and provide an estimate of the cost impact on Hydro One of being billed as a General Service class customer rather than paying an allocated share of Halton Hills Hydro's LV system.

In respect to HONI's costs incurred as an embedded distributor:

- d. Is the cost of wheeling estimated from a detailed list of revenues approved for the host distributors?
- e. Are there instances with host distributors other than Halton Hills Hydro Inc, in which Hydro One has requested to be invoiced as a regular customer rather than an Embedded Distributor? Why?
- f. In addition to any instances identified in part b), does Hydro One intend to such requests of other host distributors in the future?

131. Ref: Exhibit G2 / Tab 94 / Schedule 1 / page 1, and Schedule 2 / page 1/Issue 7.1

- a. Are all customers classified as Embedded LDC in Schedule 2 now proposed to be classified as Sub-Transmissions (ST) customers per Schedule 1? If not, in what other class(es) are current Embedded LDC's included?
- b. Are all customers classified as Embedded Direct in Schedule 2 now proposed to be classified as Sub-Transmissions (ST) customers per Schedule 1? If not, in what other class(es) are current Embedded Direct customers included?

132. Ref: Exhibit G1 / Tab 2 / Schedule 3 / p. 9/Issue 7.1

To better understand the proposed ST customer class:

**BOARD STAFF INTERROGATORIES**  
**HYDRO ONE NETWORKS INC.**  
**2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

- a. What will be the largest customer in the proposed Sub-transmission ST class? What will be the smallest customer? What classes are those customers in currently?
- b. Based on recent billing data for customers that are proposed to be in the ST class, what is the highest average monthly load factor of any customer in the proposed class. What is the lowest? What classes are the customers with those load factors in now?
- c. What is the largest number of Delivery Points that a single ST customer will have in the proposed class?

133. Ref: Exhibit G1 / Tab 2 / Schedule 3 / p. 9/Issue 7.1

- a. Did Hydro One consider two or more classes of customers that would be served at 13.8kV and above, eg embedded distributors considered separately from the remainder of the proposed ST class, former Transmission class as separate, etc.?
  - I) If so, what alternatives were developed in sufficient detail to yield approximate cost allocation results, and what were the results?
  - II) If not, why not?
- b. Does Hydro One expect to have cost savings related to Metering and/or Billing as a result of discontinuing the classification of Embedded Distributor and classifying those distributors as ST customers? If so, what is the approximate amount of the savings?
- c. Does Hydro One expect to have cost savings related to Metering and/or Billing as a result of discontinuing the classification of Embedded Direct and serving those customers as ST customers? If so, what is the approximate amount of the saving?

134. Ref: Exhibit G1 / Tab 2 / Schedule 4, and Exhibit G2 / Tab 3 / Schedule 1 / p. 3, and Exhibit G2 / Tab 5 / Schedule 1 p. 3/Issue 7.1

The reference in Exhibit G1 describes the "Density Review" as identifying areas that meet the Urban Density criteria. In the first reference in Exhibit G2, there is a list of some fourteen Acquired Distributors that were analyzed to identify customers that might be classified in one of the new Urban classifications.

- a. Where these Acquired Distributors chosen on the basis of customer density, distributor size, or some other factor(s)?

**BOARD STAFF INTERROGATORIES  
HYDRO ONE NETWORKS INC.  
2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

- b. Referring to the second reference in Exhibit G2, did all Acquired Distributors fall into either an Urban Density Zone or a Medium Density Zone?
- c. If distributor size was a factor, were any alternative size criteria considered to develop a larger number of zones, so that customers of smaller Acquired Distributors that do not qualify for the most favourable rates might at least qualify for a rate lower than the highest one? If so, please describe the criterion and why it is not proposed for use in this application.
- d. Were alternative definitions of density considered, such that there might be more than one class of customers with density higher than the proposed R1 and GS classifications? If so, please describe the alternative density limit(s) and why it/they are not proposed for use in this application.
- e. Did Hydro One analyze the density of those customers that did not qualify for the Urban classification in the selected Acquired Distributor service areas? What is the density of the non-Urban customers in Acquired Distributors, compared with the density of the Legacy customers that they are proposed to be grouped with, and what is the density of the customers who are proposed as Urban? If the comparison of densities was not made, why not?

135. Ref: Exhibit G2 / Tab 5 / Schedules 5 and 6/Issue 7.1

The Total Loss Factor proposed for the customers of many Acquired Distributors in Schedule 6 ("TLF new", 16th data column) are considerably higher than the current loss factors in Schedule 5 ("TLF old", 16th data column). Is the appropriateness of the new TLF's addressed in the pre-filed evidence? If so please provide the reference.

136. References: Exhibit G1 / Tab 2 / Schedule 3 / p. 4, and Exhibit G2 / Tab 5 / Schedule 1 / p. 3

Has Hydro One conducted a survey or inquiries on whether the 210 customers in Caledon OH-07 have a similar pattern of use and/or similar density?, If so, was the result of the survey or inquiries such that it is reasonable to include the Caledon customers with the typical customers in the Seasonal class as described in the second reference? ? If no such investigation has been conducted, please explain the rationale for basing the proposed rates of these customers in Caledon on the seasonal customer distribution rates.

**BOARD STAFF INTERROGATORIES  
HYDRO ONE NETWORKS INC.  
2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

**COST ALLOCATION**

137. Ref: Exhibit G2 / Tab 1 / Schedule 1

Please provide a copy of the most current cost allocation model as an official part of this application. Please also provide the following:

- a. Please file a version with the customer classes as shown on pp. 4-5 of the Exhibit, and not with 270 classes as described at p. 1;
- b. Please provide a complete version in electronic form but it is necessary to provide a paper copy of only worksheets I2, I6, I8, O1, O2, and E2
- c. If not included in this version of the cost allocation model, please include a copy of the diagram "Dx System and Customers – ST Basis" that was included in the Hydro One's filing EB-2007-0001

Please describe the cost basis for the following charges or credits, by indicating the relevant results in the Hydro One cost allocation model, if applicable:

- a. USL credit (Ref: Exhibit G2 / Tab 1 / Schedule 1 / pp. 13 & 19)
- b. ST monthly service charge, ST common line, and two specific line charges (Ref: Exhibit G2 / Tab 94 / Schedule 1 / p. 2)
- c. Transformer Ownership Allowance (Ref: Exhibit G1 / Tab 4 / Schedule 6, and Exhibit G2 / Tab 1 / Schedule 1 / p. 12).
- d. Sentinel Lights miscellaneous revenue (Ref: Exhibit E3 / Tab 1 / Schedule 1 / p. 2)

138. Ref: Exhibit G2 / Tab 1 / Schedule 1 / p. 8

- a. Please provide a description of the sub-accounts of Account 1860 Meters, and if applicable describe how these sub-accounts are used to develop unit costs for the Meter Capital input worksheet I7.1.
- b. Please provide a brief summary of the meter cost weightings assigned to the Sub-transmission class, including information on how uniform or diverse the equipment and technical requirements are across the various types of customers that are proposed for inclusion in this class.



**BOARD STAFF INTERROGATORIES**  
**HYDRO ONE NETWORKS INC.**  
**2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

139. Ref: Exhibit G2 / Tab 1 / Schedule 1 / p. 8 -9

- a. If the Hydro One cost allocation model includes a weighting factor for Services that are different from the default factors for any class(es), please provide a brief description and justification of the weighting factor(s)
- b. Please provide a brief description of the Meter Reading Optimization analysis, including a description of the Meter Reading weight(s) applied to various situations and a listing of the weight applied to each customer class.
- c. Please confirm that the Hydro One cost allocation model uses the default weightings from the model distributed by the Board for Billing costs, or provide a description of weights other than the default amounts.

140. Ref: Exhibit G2 / Tab 1 / Schedule 1 / p. 9

- a. Please provide a brief description of the basis for Direct Allocation of accounts 5610, 5615, and 5665.
- b. If applicable, please provide a description of how the following types of costs are allocated in the Hydro One model:
  - I) management salaries and expenses in account 5610 that are not directly allocated
  - II) administrative salaries and expenses in account 5615 that are not directly allocated,
  - III) general expenses in account 5665 that are not directly allocated.

141. References: Exhibit G2 / Tab 1 / Schedule 1 / page 16, and Exhibit G2-1-1 / Attachment A / page 2

To assist in understanding how Hydro One's additional allocators are used in its model, please explain how the total amount of Account 1815-4 'HVDS – lo LV Shared' is allocated to classes. Include a description of the allocator 1815 – 4D, described as 'High Voltage DS Low LV – LV Only'. If any other allocator is used to allocate part of the account, include a description of that allocator and the rationale for how the account is divided up in preparation for allocation.

142. Ref: Exhibit G1 / Tab 2 / Schedule 3 / p. 9

Hydro One proposes to combine formerly separate groups into a single Sub-Transmission (ST) class.

**BOARD STAFF INTERROGATORIES**  
**HYDRO ONE NETWORKS INC.**  
**2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

- a. Does Hydro One have available alternative runs of its cost allocation model in which some or all of the affected groups of customers listed in the reference are considered as separate classes, eg. all embedded distributors considered as a class separate from other embedded and LV customers?
- b. If available, please provide copies of the worksheet O1 from the runs of the model, together with a description of the assumptions sufficient to understand how costs were allocated.
- c. If not available, why were such cost allocation studies not conducted?

143. Ref: Exhibit G1 / Tab 2 / Schedule 3 / p. 9

If there are cost savings anticipated as a result of discontinuing the classes of Embedded Distributor and Embedded Direct, do such savings affect the allocation of costs with the benefit accruing to the ST class, or are the savings allocated to all customer classes?

**PROPOSED RATES**

144. Ref: Exhibit G1 / Tab 4 / Schedule 2 / Table 1, and Exhibit G2 / Tab 5 / Schedule 1 / pp. 9 -12/ Issues 7.3

The second data column in the first reference shows "Proposed Fixed Charge (\$/Customer)" with a single value per customer or connection for each class. In the second reference, the proposed service charge in some classes varies considerably depending upon the customer's current classification, for example there are five proposed charges in the GSd class on page 12 varying from \$38.68 to \$207.30.

- a. Is the variation in the charges intended to be a permanent or a transitional design?
- b. How is the single charge (shown in the first reference) chosen from the range of charges that are proposed in the second reference?

145. Ref: Exhibit G2 / Tab 1 / Schedule 1 / p. 20/ Issues 7.3

How much revenue does Hydro One forecast that it will receive from the embedded distributors during the test year using the ST customer charge together with the Common Line Charge? How much revenue is forecast to be received from embedded distributors from the ST rates other than the two rates in the previous sentence?

**BOARD STAFF INTERROGATORIES**  
**HYDRO ONE NETWORKS INC.**  
**2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

146. Ref: Exhibit G2 / Tab 1 / Schedule 1 / Attachment A / p. 37, and Exhibit G2 / Tab 94 / Schedule 1 / p. 2/ Issues 7.3

- a. Please describe the typical situations in which Hydro One would own the meter for a customer in the Sub-transmission class and charge the proposed Meter Charge at \$553 per month, and conversely the situations in which the ST customer would typically own its meter and avoid this charge.
- b. Please provide a brief description of the costs considered in deriving the proposed Meter Charge. Given that the range of unit customer costs in the first reference is \$192.71 - \$372.12, is the proposed charge cost-justified?
- c. Would ST customers that are currently G3 or F3 customers be charged the Meter Charge? If not, why not? If so, please provide the bill impact of such customers over a representative size range, showing the meter charge either as a component within the new Monthly Service Charge or as a separate charge.

147. Ref: Exhibit G2 / Tab 94 / Schedule 1 / p. 3/ Issues 7.3

- a. Would embedded distributors be required to pay the Wholesale Market Service Rate of \$0.0052 per kWh to Hydro One, if the distributor is a market participant? If so, would this be a pass-through of revenue from a similar rate in their tariffs, or would it be additional to that revenue?
- b. Would embedded distributors be required to pay the Rural or Remote Rate Protection Rate of \$0.001 per kWh to Hydro One? If so, would this charge be a pass-through of revenue from a similar rate in their tariffs, or would the charge be additional to that revenue?
- c. Would embedded distributors be required to pay the Standard Supply Service Administration Charge of \$0.25 per month to Hydro One? If so, would this be a single charge or based on the number of customers in the distributor?

148. Ref: Exhibit G1 / Tab 7 / Schedule 1 / Table 4/ Issues 7.3

For customers currently in the F1 class, there is a very large differential impact depending upon whether they are mapped into the Gse or GSd class, i.e. a basic distribution bill decrease of 6.5% if they will be energy billed or a 27.3% of 31.6% increase if they will be demand billed?

**BOARD STAFF INTERROGATORIES  
HYDRO ONE NETWORKS INC.  
2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

- a. Is the reason for this disparity that F1 customers as a whole have unusually low load factors, compared to other customers in these classes? If not due to their load factor, please explain the reason for the disparate outcome for these customers.
- b. If the reason for the disparity is the load factor, please provide information on the sample size or other source of load data, together with an evaluation of the robustness of the load profile.

149. Ref: Exhibit G2 / Tab 1 / Schedule 1 / Attachment A / pp. 35-37, and Exhibit G2 / Tab 5 / Schedule 1 / pages 13 and 18/ Issues 7.3

- a. Please describe the circumstances in which a customer in the DGen class would pay the proposed service charge of \$36.66 per month per p. 13, and the circumstances in which the customer would pay the proposed Standby Administration Charge of \$440 per month per p. 18, either instead of or in addition to the service charge.
- b. Are the revenues and costs associated with the Standard Administration Charge included in the cost allocation study, and if so are they shown in column 12 with the DGen class or are they allocated over other classes?

**REVENUE TO COST RATIOS**

150. Ref: Exhibit G1 / Tab 3 / Schedule 1 / pp 2 &. 4, and Exhibit G2 / Tab 1 / Schedule 1 / Attachment A/ Issues 7.4

Table 2 on p. 4 is titled "Proposed Revenue / Cost Ratio by Customer Class", and the first row is titled "Proposed Revenue Requirement".

- a. In order to understand the purpose of Table 2, would a better heading for the first row be "Proposed Revenue"?
- b. Given that the chapter section is titled "Target Revenue to Cost Ratio", does the data in row 1, Table 2, refer to a year when target rates are in place, or to an earlier year?
- c. Is the revenue shown in the cost allocation model filed as the attachment in Exhibit 2 for the target year?
- d. The description preceding Table 1 says that there is a shortfall estimated at \$2.5 million per year due to the proposed revenue requirement being less than the revenue requirement in the cost allocation study (Table 1 on p. 2). Is the forecast revenue shortfall referred to on p. 4 due to

**BOARD STAFF INTERROGATORIES  
HYDRO ONE NETWORKS INC.  
2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

harmonization with Acquired Distributors, or mitigation of bill impacts, or some other cause(s)?

151. Ref: Exhibit G1 / Tab 3 / Schedule 1 / pages 2 & 5/ Issues 7.4

- a. If available in the pre-filed evidence, please provide a reference to a description of the calculation of the second data column in Table 3 in the referenced schedule, which has the heading "Average Impact, %". If not included in the pre-filed evidence, please provide a description in enough detail about other costs so that parties can understand how moving the ratio for the ST class from the existing ratio 2.35 (Table 1) to 1.15 (Table 3) results in a decrease of only 4.7% in the average impact.
- b. Please confirm that the calculation is correct, in showing that moving Streetlighting from a ratio of 0.6 to 0.7 has an impact of 5%, whereas moving Sentinel Lighting from a ratio of 0.62 to 0.7 has an impact of 25%.

152. Ref: Exhibit G2 / Tab 1 / Schedule 1 / Attachment A / p. 36, last two lines/ Issues 7.4

Please provide a description of the two allocations of external revenue (CWNB and Unique), in sufficient detail that parties can understand why the Sentinel Lighting ratio is so much affected and others are little affected. Which allocator is more valid?

153. Ref: Exhibit E3 / Tab 1 / Schedule 1 / pp. 2-3, and Exhibit G2-2-1 / Attachment A / page 4/ Issues 7.4

In the first reference, Table 1 shows Regulated Revenue totalling \$31.3 (\$M), and Table 2 shows Unregulated Revenues totalling \$10.7 (\$M). In the second reference, the cost allocation model shows revenue of \$42.3 (\$M). To assist in understanding how Miscellaneous Revenue is attributed to classes:

- a. Is the method of allocating the amounts from Table 1 the same as for the amounts in Table 2? Please describe the method or methods including the underlying rationale.
- b. In particular, which sources of revenue, if any, are allocated on the basis of CWNB (weighted number of bills)?
- c. Referring the information in the box at the end of p. 36 of the second reference, please provide definitions of the information in the last four lines

**BOARD STAFF INTERROGATORIES  
HYDRO ONE NETWORKS INC.  
2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

in sufficient detail so that parties can understand how the concepts are used to calculate a revenue to cost ratio.

**RATE HARMONIZATION**

154. Ref: Exhibit G1 / Tab 2 / Schedule 5 / Table 2 (page 6), and Exhibit G2 / Tab 2 / Schedule 1 / Table 6 (page 11) / Issues 7.7
- a. Please confirm that Table 2 'Development of Harmonized Group Rates for the Residential Urban Customer Class' contains illustrative numbers only. For example, the table shows target rates of \$9.45 per month and 0.89 ¢/kWh, whereas the target rates in the first line of the table in the second reference. would be \$14.32 per month and 2.29 ¢/kWh.
  - b. The footnote to the table in the first reference says that the volumetric charge is designed to ensure recovery of the revenue requirement from the group. Does this footnote continue to apply to the proposed rate design? If so, does this apply to the rate year 2008, or to a future year when harmonization is complete?
155. Ref: Exhibit G1 / Tab 8 / Schedule 1 Table 1/ Issues 7.7
- The first two data columns of the table show proposed target distribution rates for each class. The third and fourth data columns show the proposed 2008 rates, described as "mitigated" rates, and are repeated in Exhibit G2 / Tab 5 / Schedule 1 'Rates for Retail Distribution Service. Is it Hydro One's intention to charge the target rates to the Legacy customers as soon as possible, or to phase them in equal amounts over four years (as described in point # 4 above the table)?

**CUSTOMER BILL IMPACTS FROM THE PROPOSED RATE IMPACT MITIGATION PLAN**

156. Ref: Exhibit G2 / Tab 5 / Schedule 1 / pp. 3-4, and Schedule 6/ Issues 7.8
- Were alternative density zone definitions, or additional density zones, along with more numerous customer classes, considered as a means of lessening customer bill impacts? If so, please describe the alternatives and why they were not proposed in this application.

**BOARD STAFF INTERROGATORIES  
HYDRO ONE NETWORKS INC.  
2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

157. Ref: Exhibit G1 / Tab 8 / Schedule 1 / p. 1/ Issues 7.8

The general pattern for total bill impact mitigation is described in bullet # 1 for Legacy customers, and is described as a maximum of 10% in 2008, 8% in 2009 and 7% in 2010, with the possibility of additional increases due to the Incentive Rate Mechanism in the latter two years.

- a. Which Legacy customer classes or parts of classes are expected to experience bill impacts at or near the 8% limit in 2009, if any? Where in the pre-filed evidence is this information most readily found?
- b. Which Legacy customer classes or parts of classes are expected to experience bill impacts at or near the 7% limit in 2010, if any?

158. Ref: Exhibit G2 / Tab 5 / Schedule 6/ Issues 7.8

The final column of the table shows the % impact on the total bill for various customers in each rate class. In certain instances, the impact is higher than 10%, such as GSe customers located in Erin, at p. 44, or those near 10% such as those in Fenelon Falls on the same page.

- a. Please explain the criterion for when an impact of over 10% would indicate the need for further mitigation (ie lower 2008 distribution rates), and when an impact over 10% is left unmitigated.
- b. The total bill impacts for some DGen customers are in the range of 40-50% at p. 96 of the reference. If the impact criterion is different for customers in the Distributed Generation (DGen) class, please explain the difference.
- c. If total bill impacts are included for ST customers in the pre-filed evidence, please provide the reference. If not, please provide illustrative impacts on the various customers listed in Exhibit G1 / Tab 2 / Schedule 3 / Table 8.

**ALLOCATION OF WHOLESALE TRANSMISSION COSTS TO THE ST CLASS**

159. Ref: Exhibit G1 / Tab 6 / Schedule 1 / p. 3/ Issues 7.9

- a. The method for establishing the billing demand for ST customers is described as “each customer’s coincident peak with the IESO billing time per month per their transmission delivery point”. Is this method a change from the existing method for any (or all) customers in the proposed ST class? If so, please describe the existing method and the effect of the change.

**BOARD STAFF INTERROGATORIES**  
**HYDRO ONE NETWORKS INC.**  
**2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

- b. Is the method of allocating wholesale transmission costs to the customers of Acquired distributors in this application a change from the existing method? If so, please describe the existing and proposed methods, together with a description of how parties can determine the effect of the change on ST, Legacy and Acquired customers using the impact calculations in Exhibit G2 / Tab 5 / Schedules 5 and/or 6.

**CALCULATION OF RTSRS**

160. Ref: Exhibit G2 / Tab 4 / Schedule 1 / pages 3-5/ Issues 7.9

In order to gain a better understanding of the various RTSRs to ST and other customers, such as the proposed Network charges of \$2.01 per kW to ST (Subtransmission customers) customers compared to \$1.11 per kW to GSd (General Service demand-billed) customers:

- a. Please provide the calculation of Network cost 'Equation 11.3(a)' for the two classes: ST and GSd.
- b. If the input amount for Class Monthly Demand of the ST class in Equation 11.3(a) is different from the Charge Determinant amount 38,272,898 kW in the table in section 4.1 on page 5, please provide an explanation of how the two amounts are related to each other.
- c. If the input amount for Class Monthly Demand of the GSd class in Equation 11.3(a) is different from the Charge Determinant amount 11,691,631 kW in the table in section 4.2 on page 5, please provide an explanation of how the two amounts are related to each other.
- d. Please repeat parts (b) and (c) for Connection cost 'Equation 11.3(b)'.
- e. Please clarify whether any ST customers will pay only \$0.50 per kW for Connection costs, or whether they will all pay either \$1.38 or \$1.88 per kW.

**IMPACT OF RTSR ON CUSTOMERS OF ACQUIRED DISTRIBUTORS**

161. Ref: Exhibit G1 / Tab 7 / Schedule 2 / pp. 4 - 8/ Issues 7.9

Table 1 shows bill impacts on various customer classes of acquired distributors. The third column of data for each customer class shows the total bill impact including rate riders and the fourth column shows the same plus RTSR.



**BOARD STAFF INTERROGATORIES  
HYDRO ONE NETWORKS INC.  
2008 ELECTRICITY DISTRIBUTION RATES APPLICATION**

- a. To calculate the impact (%) in the third column, is the cost of RTSR held constant at the existing level, or is it assumed to be \$0?
- b. The effect of adding RTSR to the Residential class impact appears to be fairly constant at -0.4% or -0.5%, except for Terrace Bay. Please provide a brief description of why the effect of adding RTSR has the opposite and much larger effect for Terrace Bay than in the usual case.
- c. In most of the Acquired Distributors, the effect of adding RTSR changes onto the other changes in rates and rate riders is a decrease of approximately 0.3 – 0.4%, to the General Class < 50 kW a decrease of approximately 2 - 3%, and adding RTSR to the General Class > 50 kW a decrease of approximately 4 - 5%. Please explain this differential effect of RTSRs on the respective classes in these distributors.

162. Ref: Exhibit G1 / Tab 6 / Schedule 1 / p. 5/ Issues 7.9

The Urban General Service RTSR demand rates are considerably higher than those for General Service: Network \$1.41 per kW versus \$1.11, Connection \$1.27 per kW versus \$1.00. Please describe the basis for this difference, including the sources of separate load data if applicable.

163. Ref: Exhibit G2 / Tab 4 / Schedule 1 / p. 5, and Exhibit G2 / Tab 94 / Schedule 1 / p. 3/ Issues 7.9

The ST class rates calculated at Tab 4 are Network \$2.01 per kW, Line Connection \$0.50 per kW, and Connection Transformation \$1.38 per kW. The rates quoted at Tab 94 are each \$0.01 per kW higher. Which is correct?