



VIA RESS, EMAIL AND COURIER

March 14, 2008

Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
P.O. Box 2319, 27th Floor
2300 Yonge Street
Toronto, ON M4P 1E4

Dear Ms. Walli:

**Re: AMPCO Interrogatories
Hydro One Networks Inc. Electricity Distribution Rate Changes
Board File Number EB-2007-0681**

Pursuant to Procedural Order #2, issued February 22, 2008, attached please find AMPCO's interrogatories in the above proceeding.

Please contact me if you require additional information.

Sincerely yours,

A handwritten signature in blue ink, appearing to read "Adam White", with a long horizontal flourish extending to the right.

Adam White
President

Copies to:
Applicant and Intervenors
Rudra Mukherji
Jennifer Lea

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1 **Hydro One Distribution Rate Application EB-2007-0681**

2 **AMPCO Interrogatories for Hydro One**

3 **AMPCO Interrogatory # 1**

4 **Issue Number: 1.4**

5 **Issue:** Are Hydro One's Economic and Business Planning Assumptions for 2008
6 appropriate?

7 Ref: A/Tab 3/Sch 1/Page 2/Table 1

8 a. Does Hydro One measure customer satisfaction for its distribution customers by
9 geographic zone or area? If so, please provide a table indicating how customer
10 satisfaction results vary across the service territory.

11 b. If there is more than one, please identify the major customer segments Hydro
12 One includes in its customer service goal, and current measured levels of
13 customer satisfaction for each.

14 **AMPCO Interrogatory # 2**

15 **Issue Number: 1.4**

16 **Issue:** Are Hydro One's Economic and Business Planning Assumptions for 2008
17 appropriate?

Ref: A/Tab 3/Sch 1/Page 2/Table 1

- a. Please provide the date and rationale supporting establishment of the 2010 strategic goal of first quartile (like for like) reliability.
- b. Also, please provide any source information the company relied on with respect to customer expectations, customers' willingness to pay and expected impacts on rate base and operations costs that were considered in the establishment of the reliability goal.

AMPCO Interrogatory # 3

Issue Number: 1.4

Issue: Are Hydro One's Economic and Business Planning Assumptions for 2008 appropriate?

Ref: A/Tab 14/ Sch 2/Page 3/Table 3

- a. This table appears incorrect, in that it defines the exchange rate as CDN\$/US\$ and the ratios provided do not seem to match the definition. Moreover, the projections for 2007 and 2008 seem out of line with experience. Please either explain or correct.

1 **AMPCO Interrogatory # 4**

2 **Issue Number: 1.4**

3 **Issue:** Are Hydro One's Economic and Business Planning Assumptions for 2008
4 appropriate?

5

6 Ref: A/Tab 14/Sch 2/Page 7/ Line 10

7

- 8 a. This section refers the reader to Appendix A of Exhibit A, Tab 14, Schedule 1
9 for a table of labour rate escalation factors. However, the appendix seems to
10 be missing. Please provide the appendix mentioned.

11 **AMPCO Interrogatory # 5**

12 **Issue Number: 1.5**

13 **Issue:** Is the load forecast and methodology appropriate and have the impact of
14 Conservation and Demand Management initiatives been suitably reflected?

15

16 Ref: A/Tab 14/Sch 3/Page 2/ Table 1

17

- 18 a. Please provide the source energy or demand data (forecast, actual and
19 weather corrected) from which this table was calculated, including the
20 corresponding 2007 data if available.

1 **AMPCO Interrogatory # 6**

2 **Issue Number: 1.5**

3 **Issue:** Is the load forecast and methodology appropriate and have the impact of
4 Conservation and Demand Management initiatives been suitably reflected?

5

6 Ref: A/Tab 14/Sch 3/Page 8/Line 16

7

8 The 350MW reduction ordered by the Board in EB-2006-0501 was for the forecast of
9 average monthly peak Ontario demand.

- 10 a. Please provide the calculation details regarding how this reduction was
11 translated from Ontario demand into Hydro One Distribution energy sales.

12 **AMPCO Interrogatory # 7**

13 **Issue Number: 1.5**

14 **Issue:** Is the load forecast and methodology appropriate and have the impact of
15 Conservation and Demand Management initiatives been suitably reflected?

16

17 Ref: A/Tab 14/Sch 3/Page 8/Line 17

18

19 In the IPSP (Ex D, Tab 4, Sch 1, Attachment 2, page 1, Table 1) the OPA identifies
20 600MW cumulative of naturally occurring conservation by the end of 2007.

1 a. Please provide the calculation details as to how this was accounted for in the
2 Hydro One distribution load forecast.

3 b. Please provide the specific data references in the IPSP that support the statement
4 "The 2008 CDM impact is consistent with the OPA's IPSP filed with the Board on
5 August 29, 2007."

6 **AMPCO Interrogatory # 8**

7 **Issue Number: 1.5**

8 **Issue:** Is the load forecast and methodology appropriate and have the impact of
9 Conservation and Demand Management initiatives been suitably reflected?

10
11 Ref: A/Tab 14/Sch 3/Page 10/Lines 11 - 14
12

13 This projection indicates that customer growth in 2008 is expected to be 9,400, down
14 from the 2002-2006 average of 12,000 annually (exclusive of Terrace Bay addition). This
15 seems to represent a decline of about 22%. However, in Exhibit D1, Tab 3, Sch 4, page
16 14, Lines 12-28, new connections are estimated at the historical average of 17,600
17 annually.

18 a. It would appear that both these assertions cannot be correct. Please provide a
19 discussion, explanation or correction.
20

AMPCO Interrogatory # 9

Issue Number: 1.5

Issue: Is the load forecast and methodology appropriate and have the impact of Conservation and Demand Management initiatives been suitably reflected?

Ref: A/Tab 14/Sch 3/Page 20/Table 4

- a. Please provide actual (weather normal) as opposed to forecast load data for 2006 and 2007.

AMPCO Interrogatory # 10

Issue Number: 1.5

Issue: Is the load forecast and methodology appropriate and have the impact of Conservation and Demand Management initiatives been suitably reflected?

Ref: A/Tab 14/Sch 3/Page 20/Table 4

A/Tab 10/Sch 1/Inside cover

- a. Please provide a reconciliation or explanation for the difference between the 2006 load forecast(s) in this table and the figure of 29.0 TWh provided in the 2006 annual report (inside cover, Ex A/Tab 10/Sch 1).

AMPCO Interrogatory # 11

Issue Number: 1.6

Issue: Is service quality on the OEB specified performance indicators acceptable?

Ref: A/Tab 15/Sch 1/Page 7/Table 1

- a. Please provide the System Average Interruption Duration index (SAIDI), System Average Interruption Frequency Index (SAIFI) and Customer Average Interruption Duration Index (CAIDI) targets the company believes it will need by 2010 to meet if it is to achieve its strategic goal of being a first quartile (like for like) performer in these categories.

AMPCO Interrogatory # 12

Issue Number: 1.6

Issue: Is service quality on the OEB specified performance indicators acceptable?

Ref: A/Tab 15/Sch 1/Page 7/Table 1

- a. Does Hydro One break out reliability measures by territory, zone or area? If so, please provide a table indicating the 2006 and/or 2007 results by geography?

1 **AMPCO Interrogatory # 13**

2 **Issue Number: 1.7**

3 **Issue:** Are the proposed distribution loss factors appropriate?

4

5 Ref: A/Tab 15/Sch 3/Page 6/Line 1

6

7 Since subtransmission class customers use only a portion of the Hydro One distribution
8 assets, it is difficult to understand why they should be allocated the same proportion of
9 non-technical losses as other customers.

10 a. Please identify whether Hydro One has experienced any unrecovered theft of
11 power from its subtransmission system in the past five years.

12 b. Please identify the metering accuracy requirements for Large User meters, and
13 the range of meter inaccuracies Hydro One has found through its meter
14 verification program.

15 c. Please provide a description of the types and numbers of un-metered loads
16 Hydro One has that are serviced by its subtransmission system.

17 **AMPCO Interrogatory # 14**

18 **Issue Number: 1.7**

19 **Issue:** Are the proposed distribution loss factors appropriate?

20

Ref: A/Tab 15/Sch 3/Attachment A, p11.

The discussion in this section seems to suggest that all customer classes have identical portions of non-technical losses associated with their use of the system (1.2%). If the total non-technical losses represent 1.2% of total energy billed, then it seems logical to assume that, as with technical losses, these would accumulate as power flows from subtransmission to primary and on to the secondary system, with the largest portions likely occurring where such factors as theft of power are most likely to occur. In turn, this would suggest that the subtransmission system on its own must have a non-technical loss factor of less than 1.2%. The explanation given in the Kinectrics report at the bottom of page 11 seems overly cursory. Using Kinectrics' figures in Table 6, it appears that non-technical losses account for over 30% of all subtransmission losses (1.2/3.8), while accounting for less than 13% (1.2/9.4) of the losses attributed to customers taking power at secondary voltage.

- a. Please provide the calculation detail Kinectrics used in arriving at the 1.2% factor for all classes.

AMPCO Interrogatory # 15

Issue Number: 3.1

Issue: Are the overall levels of the 2008 Operation, Maintenance and Administration budgets appropriate?

Ref: C1/Tab 2/Sch 4/Table 1

- a. Please explain in more detail the reasons for the cost increase for Operations from \$11.1M in 2007 to \$13.4M in 2008.

AMPCO Interrogatory # 16

Issue Number: 3.1

Issue: Are the overall levels of the 2008 Operation, Maintenance and Administration budgets appropriate?

Ref: C1/Tab 2/Sch 5/Page 9/Line 15

- a. Please provide the number of manual meter readings performed each year from 2004-2007, as well as the expected level for 2008.

AMPCO Interrogatory # 17

Issue Number: 3.1

Issue: Are the overall levels of the 2008 Operation, Maintenance and Administration budgets appropriate?

Ref: C1/Tab 2/Sch 2

- 1 a. Are the sustaining OM&A programs for lines, stations and vegetation
2 management designed to maintain current service reliability, or to improve
3 service reliability on a schedule to achieve the corporate strategic goal for
4 reliability by 2010?

5 **AMPCO Interrogatory # 18**

6 **Issue Number: 3.2**

7 **Issue:** Is the 2008 vegetation management budget appropriate?

8
9 Ref: C1/Tab 2/Sch 2/Page 30/Table 9
10

- 11 a. Please provide accomplishment data (km) for line clearing and brushing for
12 each year from 2004-2007.

13 **AMPCO Interrogatory # 19**

14 **Issue Number: 3.3**

15 **Issue:** Is the proposed level of 2008 Shared Services and Other O&M spending
16 appropriate?
17

18 Ref: C1/Tab2/Sch6/Pages 3&4, Tables 1&2
19

Table 2 indicates that the corporate total cost of asset management in 2008 will be \$118.9M, of which \$46.3M will be allocated to the distribution function. From Table 1, this represents an increase of over 20% from the 2007 level of \$38.1M. The Board decision in EB-2006-0501 approved the 2008 transmission work program based on a proposed corporate total budget for asset management of \$96.4M.

a. Please explain in detail the reasons for a more than 20% increase in asset management cost for distribution.

b. Please explain the difference between the approved total shared services budget for asset management budget of \$96.4M from EB-2006-0501 and the figure of \$118.9M provided in this application.

AMPCO Interrogatory # 20

Issue Number: 3.3

Issue: Is the proposed level of 2008 Shared Services and Other O&M spending appropriate?

Ref: C1/Tab 2/Sch 6/ Attachment A/Section 4.5/Lines 26-28

a. Please identify the rate of efficiency and productivity improvement assumed or specified in the Inergi contract for 2008-2010.

1 **AMPCO Interrogatory # 21**

2 **Issue Number: 3.3**

3 **Issue:** Is the proposed level of 2008 Shared Services and Other O&M spending
4 appropriate?

5 Ref: C1/Tab 4/Sch 2/Page 3/Section 2.0

6

7 a. Please identify whether Hydro One regards the INERGI outsource
8 contract as a cost efficiency initiative.

9 b. If so, please provide a short analysis if its success as a cost efficiency
10 initiative.

11 **AMPCO Interrogatory # 22**

12 **Issue Number: 4.2**

13 **Issue:** Are the amounts proposed for 2008 Capital Expenditures appropriate?

14

15 Ref: D1/Tab 2/Sch1/Page 7

16

17 a. Please identify any assets for which the basis for establishing the health index
18 has changed significantly since Hydro One's filing in EB-2005-0378.

b. For any assets where the basis for establishing the health index has changed,
please provide an estimate of the effect this has had on placing these assets
into the condition categories listed in Table 4.1.

AMPCO Interrogatory # 23

Issue Number: 4.2

Issue: Are the amounts proposed for 2008 Capital Expenditures appropriate?

Ref: D1/Tab 2/Sch1/Page 10/Table 4.2

a. Please confirm that "Transformer Failure" as defined in this table, means a
failure that required the transformer to be removed from its location for either
major repair or replacement. If this is not the definition Hydro One is using,
please provide the definition that is being used.

AMPCO Interrogatory # 24

Issue Number: 4.2

Issue: Are the amounts proposed for 2008 Capital Expenditures appropriate?

Ref: D1/Tab 2/Sch 1/Page 14/Fig. 3

- 1 a. Please identify what, if any, maintenance, life extension, or reinforcement
2 activities Hydro One performs on its wood pole population.
- 3 b. If Hydro One does not perform life extension activities for poles, please
4 provide the analysis and assumptions supporting this decision.

5 **AMPCO Interrogatory # 25**

6 **Issue Number: 4.2**

7 **Issue:** Are the amounts proposed for 2008 Capital Expenditures appropriate?

8
9 Ref: D1/Tab3/Sch 2/Page 13/Table 1
10

- 11 a. Please provide the number of poles replaced or expected to be replaced under
12 the trouble call and storm damage capital category in the historic, bridge and
13 test years.

14 **AMPCO Interrogatory # 26**

15 **Issue Number: 4.2**

16 **Issue:** Are the amounts proposed for 2008 Capital Expenditures appropriate?

17
18 Ref: D1/Tab 3/Sch2/Page 27, line 18 to Page 28, line 8
19

- 1 a. Please identify separately the costs for the Cost Information System (CIS)
2 upgrade needed to meet the government directive on smart meters from the
3 incremental project cost to leverage the Automated Information System
4 (AMI) system for service improvements.
- 5 b. Please provide the business case for the enhancements to leverage the AMI
6 system.

7 **AMPCO Interrogatory # 27**

8 **Issue Number: 4.4**

9 **Issue:** Are the 2008 amounts proposed for Development capital appropriate?

10
11 Ref: D1/Tab 3/Sch 3/Page 3/Table 2
12

- 13 a. Please provide a table similar to Table 2, with accomplishment units for the
14 historic years and bridge years and projected accomplishment units for the
15 test year. This is not required for meter purchases.
- 16 b. Please explain in some detail the reasons for the expected increase in cost for
17 service upgrades and whether this estimate includes consideration of the
18 impact of Conservation Demand Management (CDM) programs in slowing
19 the increase in energy consumption.
20

1 **AMPCO Interrogatory # 28**

2 **Issue Number: 4.6**

3 **Issue:** Is the proposed level of 2008 Shared Services and Other Capital expenditures
4 appropriate?

5

6 Ref: D1/Tab 3/Sch 5/Page 1/Table 1

7 D2/Tab 2/Sch 3/Ref #IT1

8

9 For the Cornerstone Phase 1 Project. Table 1 shows costs for 2007 and 2008 as \$60.4M
10 and \$63.0M respectively. However, the Investment Justification indicates net
11 investment for 2007 and 2008 of \$83.7 and \$63.4M respectively.

12 a. Please provide an explanation or confirm that the figures on Table 6 are the
13 most up to date.

14 **AMPCO Interrogatory #29**

15 **Issue Number: 4.6**

16 **Issue:** Is the proposed level of 2008 Shared Services and Other Capital expenditures
17 appropriate?

18

19 Ref: D1/Tab3/Sch 5/Page 32/Lines 21-24

20

1 The explanation given for the increase in Transport & Work Equipment (TW&E) capital
2 investment is that the increase is directly related to the increase in work programs.

- 3 a. Please identify the specific work program increases that are driving the
4 increase in TW&E acquisitions.

5 **AMPCO Interrogatory # 30**

6 **Issue Number: 7.2**

7 **Issue:** Is Hydro One's cost allocation appropriate?

8 Ref: G1/Tab3/Sch 1/Page 2-3, Table 1

9 On page 3 of the Board Report on Application of Cost Allocation for Electricity
10 Distributors, the Board states: "To the extent that distributors can address influencing
11 factors that are within their control (such as data quality), they should attempt to do so
12 and to move revenue-to-cost ratios nearer to one."

- 13 a. Please advise whether Hydro One has sufficient data to set revenue to cost ratios
14 to one.

15 b. If Hydro One does not have sufficient data,

16 a. what data is missing?;

17 b. what steps Hydro One is taking to collect this data?; and

18 c. when will the missing data be available?

1 c. Please advise if Hydro One interprets the Board's Report on Application of Cost
2 Allocation for Electricity Distributors to require a revenue to cost ratio of one if
3 it is possible to do so;

4 d. If Hydro One does not interpret the board's Report to require a revenue to cost
5 ratio of one if possible, please advise what requirement is imposed by the
6 Board's Report?

7 e. If Hydro One does not interpret the Board's Report to require a revenue to cost
8 ratio of one if possible, please identify all of the factors that Hydro One believes
9 that it either has considered or is entitled to consider in determining whether to
10 set revenue to cost ratios at something other than one.

11 **AMPCO Interrogatory # 31**

12 **Issue Number: 7.2**

13 **Issue:** Is Hydro One's cost allocation appropriate?

14
15 Ref: G1/Tab 3/Sch 1/Page 3
16

17 The evidence states that the revenue to cost ratio for Distributed Generation is to be
18 changed from 1.63 to 1.0 "in support of Government policy to promote Distributed
19 Generation in Ontario."

- 1 a. Please advise how government policy is relevant for the purposes of
2 determining revenue to cost ratios;
- 3 b. Please advise what steps Hydro One took to discern government policy with
4 respect to Distributed Generation;
- 5 c. Please advise what steps Hydro One took to discern government policy with
6 respect to any other class of customer;
- 7 d. Please identify all policy matters that Hydro One considers relevant in setting
8 revenue to cost ratios that depart from one.

9 **AMPCO Interrogatory # 32**

10 **Issue Number: 7.2**

11 **Issue:** Is Hydro One's cost allocation appropriate?

12
13 Ref: G1/Tab 3/Sch 1/Page 3
14

15 The evidence states that the revenue to cost ratios for Street Light and Sentinel Light
16 classes is 0.7; the Urban General Service is 1.2; and the Sub-Transmission class is at 1.15.

- 17 a. For each of these classes, please specify why the revenue to cost ratio is not at
18 one;
- 19 b. For each of these classes, please specify why Hydro One is proposing that
20 some be at the higher or lower ends of ratios proposed by the Board.

1 **AMPCO Interrogatory # 33**

2 **Issue Number: 7.2**

3 **Issue:** Is Hydro One's cost allocation appropriate?

4

5 G1/Tab 3/Sch 1/Pages 3-4

6

7 The evidence states that the revenue to cost ratio for Acquired Residential customers is
8 0.88 because that is "considered to be the maximum that ... this customer class can
9 sustain."

10 a. Please advise of the research and analysis carried out by Hydro One to
11 determine the amount this or any other customer class could sustain.

12 **AMPCO Interrogatory # 34**

13 **Issue Number: 7.2**

14 **Issue:** Is Hydro One's cost allocation appropriate?

15

16 Ref: G1/Tab 3/Sch 1/Page 4

17

18 The evidence states that the proposed revisions to revenue to cost ratios will lead to a
19 shortfall of \$2.5 million that Hydro One proposes to record in a deferral account for
20 recovery at a future date "from all customers".

- 1 a. What is the rationale for seeking recovery from all customers as opposed to
2 the customers that are under contributing to their cost?

3 **AMPCO Interrogatory # 35**

4 **Issue Number: 7.2**

5 **Issue:** Is Hydro One's cost allocation appropriate?

6
7 Ref: G1/Tab 3/Sch 1/Page 4

8
9 The evidence states that moving revenue to cost ratios to one would result in either
10 unacceptable bill impacts or the need for an excessively long mitigation period.

- 11 a. Please advise whether Hydro One views the departure from a revenue to cost
12 ratio of one to be a temporary transitional measure or an enduring feature of
13 its rates;
- 14 b. If it is a temporary measure, what is the time frame for bringing revenue to
15 cost ratios to one;
- 16 c. If it is a temporary measure, how will Hydro One ensure that it will be
17 rectified before the imposition of performance-based regulation?
- 18 d. If Hydro One proposes that a departure will be enduring, what factors will it
19 consider in any subsequent changes to revenue to cost ratios for specific
20 customers?

1 **AMPCO Interrogatory # 36**

2 **Issue Number: 7.2**

3 **Issue:** Is Hydro One's cost allocation appropriate?

4

5 Ref: G1/Tab 3/Sch 1/Page 5/Table 3

6

7 The total bill impact results in this table are difficult to understand. For example, the
8 total bill impact of Sentinel lights is estimated at 118% when moving from an R/C of
9 0.62 to 1.00. At the maximum, it would seem that the total bill impact for this class could
10 be no more than slightly over 60%.

11 a. Please provide a detailed explanation of how these calculations were made,
12 including assumptions about the non-distribution portion of the total bills.

13 Providing the electronic form of spreadsheet that was used for the
14 calculations would be preferred.

15 b. Please add a column to this table with the average monthly total bill dollar
16 impacts for each customer class and per unit for the un-metered Streetlight
17 and Sentinel Light classes.

18 **AMPCO Interrogatory # 37**

19 **Issue Number: 7.2**

20 **Issue:** Is Hydro One's cost allocation appropriate?

Ref: G1/Tab 4/Sch 4/Page 2/Table 1

It is difficult to reconcile the figures in this table with the proposal to reduce the R/C ratio from 2.35 to 1.15 for Subtransmission customers. Each of the volumetric charges proposed in Table 1 is more than half the current volumetric Charge, and a couple are higher than current rates (Specific LV and Distribution Line charges). Also, a fixed service charge is to be added.

- a. Please provide a spreadsheet or table with discussion that illustrates how the new charges result in a lowering of the R/C ratio from 2.35 to 1.15.

AMPCO Interrogatory # 38

Issue Number: 7.2

Issue: Is Hydro One's cost allocation appropriate?

Ref: G1/Tab 5/Sch 1/Page 3

- a. Please confirm that this proposal does not involve allocating smart meter costs to customer classes that will not receive smart meters or are currently using IESO approved revenue grade meters.

1 **AMPCO Interrogatory # 39**

2 **Issue Number: 7.2**

3 **Issue:** Is Hydro One's cost allocation appropriate?

4

5 Ref: G1/Tab 3/Sch 1/Page 2/Table 1

6

7 The combination of a revised cost allocation and new customer classes makes it difficult
8 to discern the actual impact on current customers of the combination of these two
9 changes.

10 a. Please provide the existing revenue/cost ratios for T Class and Hydro One
11 Embedded Direct Customers

12 **AMPCO Interrogatory #40**

13 **Issue Number: 7.2**

14 **Issue:** Is Hydro One's cost allocation appropriate?

15

16 Ref: G2/Tab 1/Sch 1/Page 4/Line 7

17

18 This sentence is confusing as written. Should "that" be inserted after "customers" on line
19 7?

1 **AMPCO Interrogatory # 41**

2 **Issue Number: 7.3**

3 **Issue:** Are Hydro One's proposed rates appropriate?

4

5 Ref: G1/Tab 7/Sch 3/Page 2/Table 1

6

7 a. Please provide a version of this table that illustrates the impacts to customers
8 of the Hydro One distribution charges only, including Retail Transmission
9 Service Rates (RTSR) changes (e.g., excludes commodity charges).

10 b. With the table requested above, please state the underlying assumptions on
11 charge determinants.

12