

1 **Energy Probe INTERROGATORY #001**

2
3 **Reference:**

4 Exhibit A, Tab 3, Schedule 1, page 5

5
6 **Interrogatory:**

7 Preamble: "Between 2009 and 2012, Hydro One invested heavily in system development, in
8 order to comply with government policies related to the connection and integration of renewable
9 energy generation and the retirement of coal-fired generation. Since then, system development
10 needs have declined while system renewal needs have increased to the point of creating risk to
11 current reliability levels."

12
13 Can Hydro One list the percentage of its capital spending between 2009 and 2012 that was
14 directly related to government policies regarding the "connection and integration of renewable
15 energy generation and the retirement of coal-fired generation"?

16
17 **Response:**

18 The percentage of development net capital spending required to comply with government
19 policies related to the connection and integration of renewable energy generation and the
20 retirement of coal-fired generation relative to the total net capital spend between 2009 and 2012
21 is given in the table below.

22

	2009	2010	2011	2012
Percentage of Capital Plan	25%	40%	35%	25%

1 **Energy Probe INTERROGATORY #002**

2
3 **Reference:**

4 Exhibit A, Tab 3, Schedule 1, Pages 6/7, Table 2

5
6 **Interrogatory:**

- 7 a) Please provide a version of Table 2 that shows a different “pacing” of the Capital Program
8 than the Application:
9 -Reliability Risk is decreased over a period of three years rather than the proposed two years
10 -Reliability Risk is decreased over a period of five years rather than the proposed two years.
11
- 12 b) What is the endpoint/long-term goal that Hydro One seeks to attain? Please provide this for
13 the overall TX system and for each category of asset. How many years will this take?
14

15 **Response:**

- 16 a) The Reliability Risk Model provides an outcome measure to gauge the impact of investments
17 on future transmission system reliability. It assesses the replacement impact of 3 asset types
18 (i.e., lines, breakers and transformers) that are the most influential to reliability. In order to
19 answer this interrogatory, numerous revisions to Hydro One’s investment plan would be
20 required to determine the mixture of asset replacements required to reach the decrease in
21 reliability risk over the various time periods requested. The request would require
22 unreasonable effort to address in the timeframe available.
23

24 However, evidence regarding scenario comparison has been provided with this application.
25 Please refer to Exhibit I, Tab 1, Schedule 15 for additional information.
26

- 27 b) Hydro One’s objective is to maintain top quartile reliability in the transmission system.
28 There are no individual asset targets. Reliability risk is a leading indicator to help Hydro
29 One reach its reliability objective. Hydro One believes this approach provides valuable
30 service to its customers, rather than waiting for lagging indicators such as SAIDI and SAIFI
31 to show a decline in reliability after the fact, which would then need to be corrected.

1 **Energy Probe INTERROGATORY #003**

2
3 **Reference:**

4 Exhibit A, Tab 3, Schedule 1, page 12

5
6 **Interrogatory:**

7 Preamble: "Due to the planned refurbishment of large nuclear power plants in 2021 and beyond,
8 Hydro One expects to face greater constraints to outage scheduling in the future. As a result, it
9 has planned the pace of sustainment work so that critical work to reduce risk on the system could
10 be completed in the next five years to ensure that transmission assets are in service before
11 expected outage constraints make work more difficult to complete."

12
13 Does Hydro One have any official plans or documents detailing its scheduled capital investments
14 in the face of a delayed refurbishment schedule? Please provide copies.

15
16 **Response:**

17 Hydro One does not have additional plans associated with a delayed refurbishment schedule.

Energy Probe INTERROGATORY #004

Reference:

Exhibit A, Tab 3, Schedule 1, Page 9, Table 4; Exhibit E2, Tab 2, Schedule 1

Interrogatory:

- a) Please provide a summary table that shows for 2011-2016, the forecast and actual load.
- b) Please provide a quantitative discussion of the main drivers for reductions in load.
- c) For 2017-18 please discuss in quantitative terms the basis for the forecast reductions in Ontario demand.
- d) With regard to the Load Forecast Model, please provide details of latest forecast and graphical presentation(s), plus showing errors/trends, plus a discussion on statistical error associated with the model.
- e) Discuss if there are structural changes or other factors that are resulting in increased forecast error.

Response:

- a) Please see below historical (2011-2015) and forecast (2016) information requested.

**History and Forecast of Ontario Peak
(12-Month Average Peak in MW)**

Year	Peak
2011	20,547
2012	20,481
2013	20,360
2014	20,554
2015	20,203
2016	20,233

- 1 b) It can be observed that the historical weather-corrected load continued to decline, except in
2 2014. Over the period 2011 to 2015, inclusive, the total reduction in load is 344 MW (=
3 20,203 MW – 20,547 MW). The reduction is due to the following factors listed below.
- 4 • CDM: $-471 \text{ MW} = -(1,434 \text{ MW} - 963 \text{ MW})$ from Table 2 of the Exhibit noted
5 above.
 - 6 • Embedded generation (EG): $-391 \text{ MW} = -(716 \text{ MW} - 325 \text{ MW})$. (See Exhibit I,
7 Tab 12, Schedule 30.)
 - 8 • Economy: $518 \text{ MW} = -344 \text{ MW} - (-471 \text{ MW} - 391 \text{ MW})$.

- 9
10 c) In reference to Table 3 of Exhibit E1, Tab 3, Schedule 1, from 2016 to 2017, Ontario demand
11 after CDM and embedded generation (“EG”) is forecast to increase by 140 MW (= 20,373
12 MW – 20,233 MW). This increase is due to the factors listed below.
- 13 • CDM: $0 \text{ MW} = -(1,638 \text{ MW} - 1,638 \text{ MW})$
 - 14 • EG: $-38 \text{ MW} = -(773 \text{ MW} - 735 \text{ MW})$
 - 15 • Economy $178 \text{ MW} = 140 \text{ MW} - (-0 \text{ MW} - 38 \text{ MW})$. 178 MW can also be derived
16 as the difference between the load forecast prior to CDM and EG in the same Table
17 (i.e., $22,784 \text{ MW} - 22,606 \text{ MW} = 178 \text{ MW}$).

18
19 Similarly, from 2017 and 2018, Ontario demand after CDM and EG is forecast to increase by
20 5 MW (= 20,378 MW – 20,373 MW) due to the factors listed below.

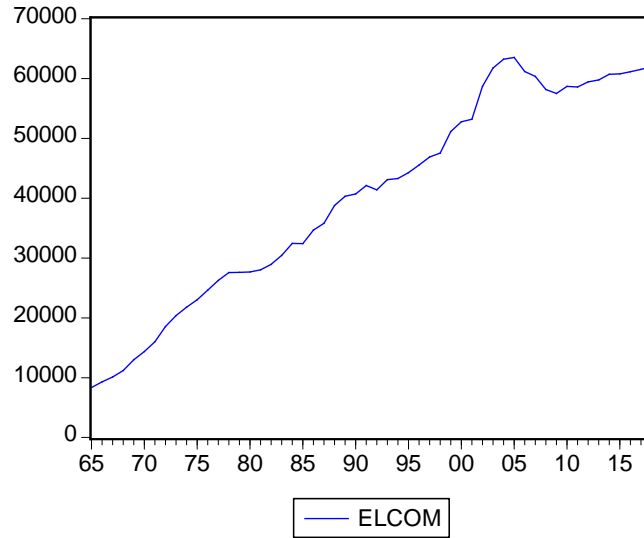
- 21 • CDM: $-286 \text{ MW} = -(1,924 \text{ MW} - 1,638 \text{ MW})$
- 22 • EG: $-30 \text{ MW} = -(803 \text{ MW} - 773 \text{ MW})$
- 23 • Economy: $321 \text{ MW} = 5 - (-286 - 30)$. Clearly, 321 MW can also be derived as
24 difference between load forecast prior to CDM and EG in the same Table (i.e., $23,105$
25 $\text{MW} - 22,784 \text{ MW} = 321 \text{ MW}$).

- 26
27 d) Hydro One does not use a single model to produce the load forecast. Details regarding the
28 various load forecasting models are discussed in Part 4.3 and Appendices A to C of the
29 Exhibit E1, Tab 3, Schedule 1. For details regarding latest forecasts of these models, please
30 see Exhibit I, Tab 12, Schedule 32. Graphical presentation of forecasts and errors/trends are
31 presented in this response below.

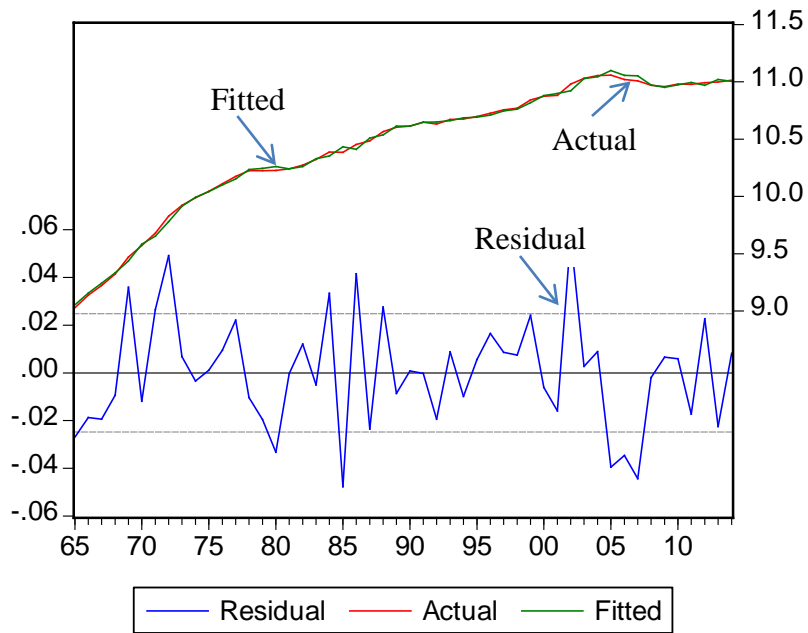
32
33 For each model, a plot of historical and forecast values is first provided, followed by other
34 graphs reflecting the fit of the underlying model during sample period (e.g., residual). A
35 discussion of the results is provided after the graphs.

1

i. Commercial Model



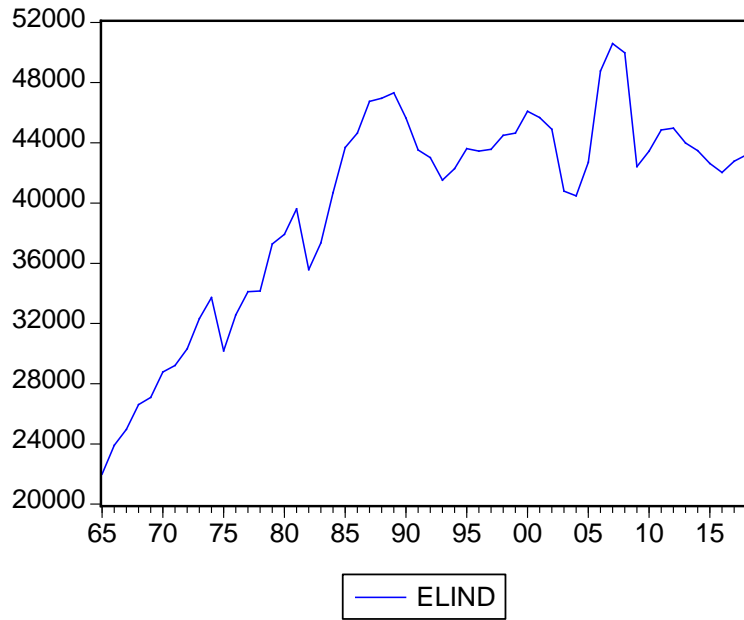
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3

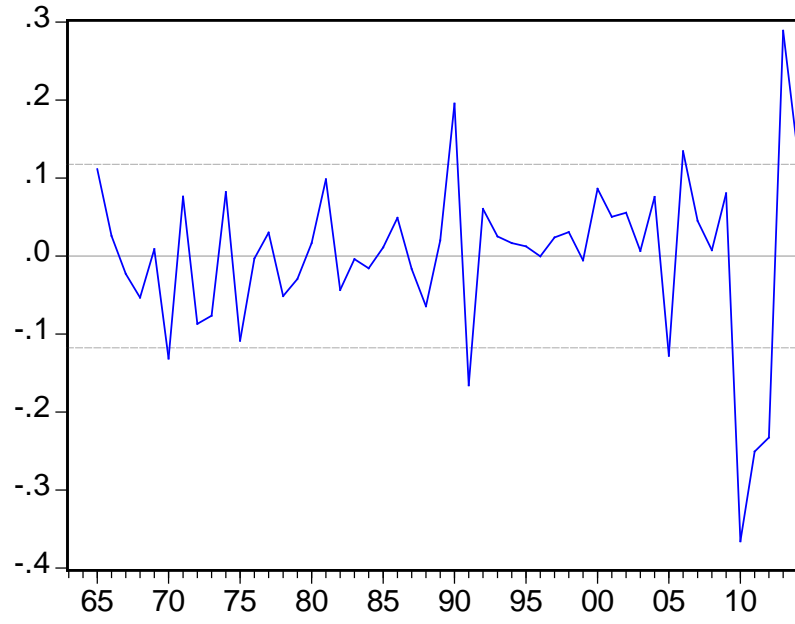
1

ii. Industrial Model

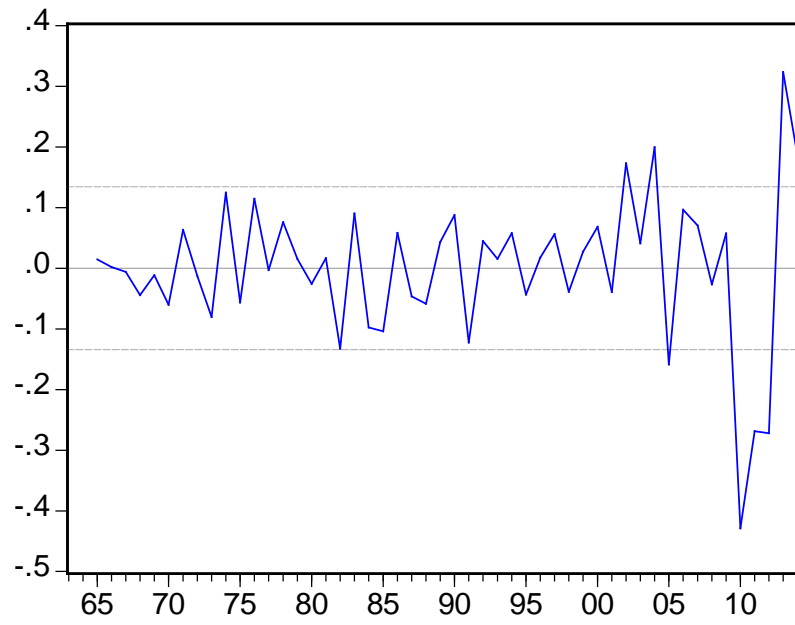


2

LW13 Residuals

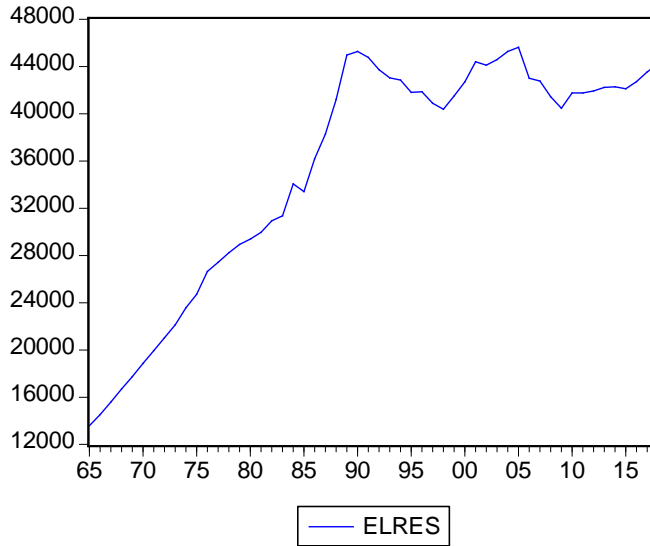


LW23 Residuals



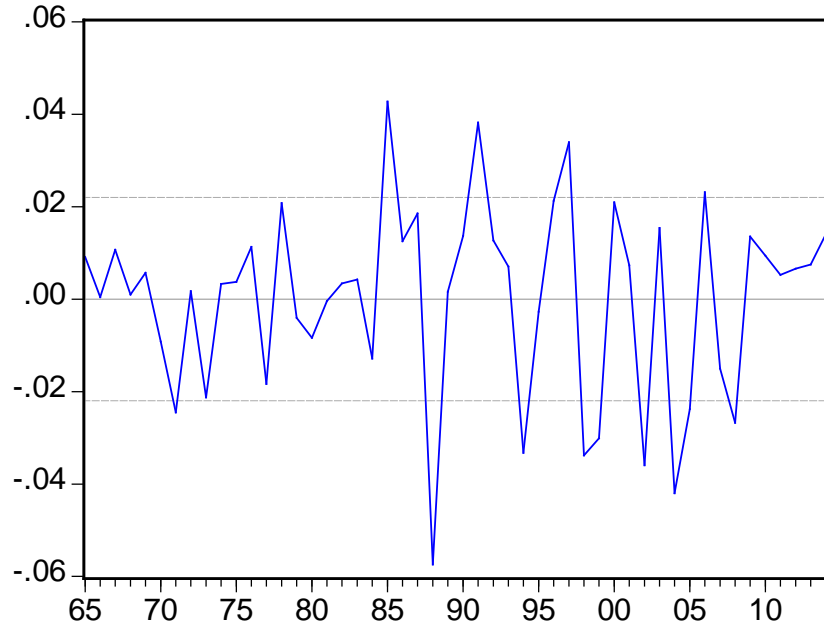
1

iii. Residential Model

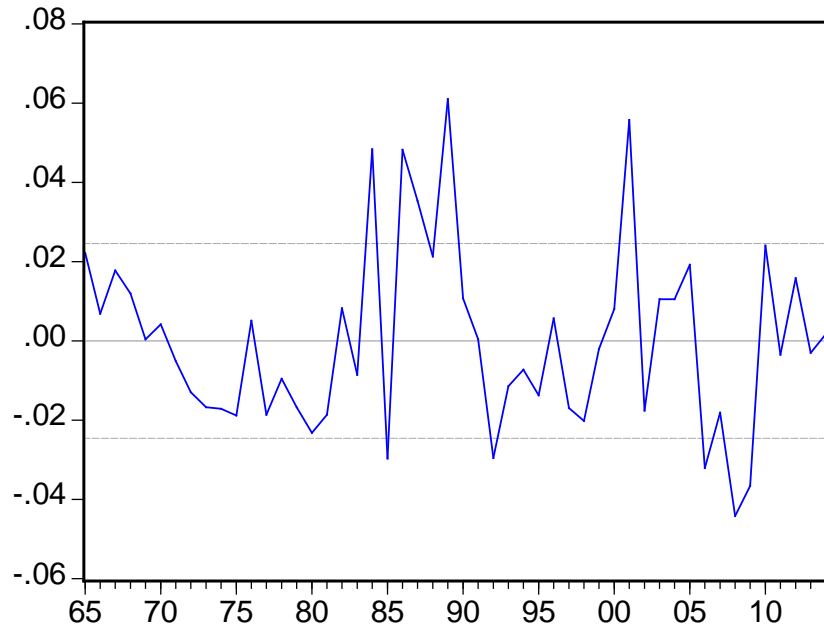


2

LELSAT Residuals

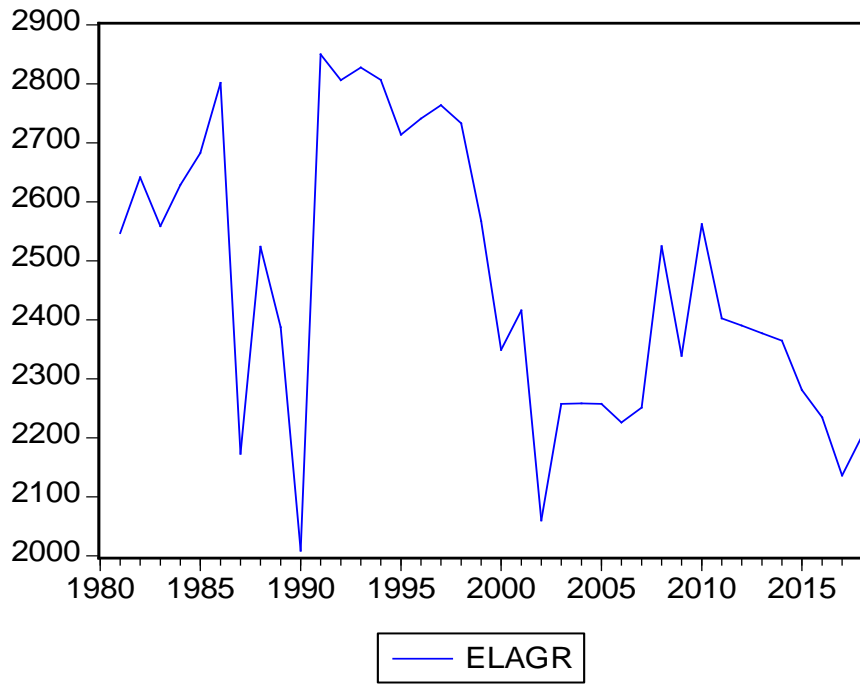


LELUSE Residuals

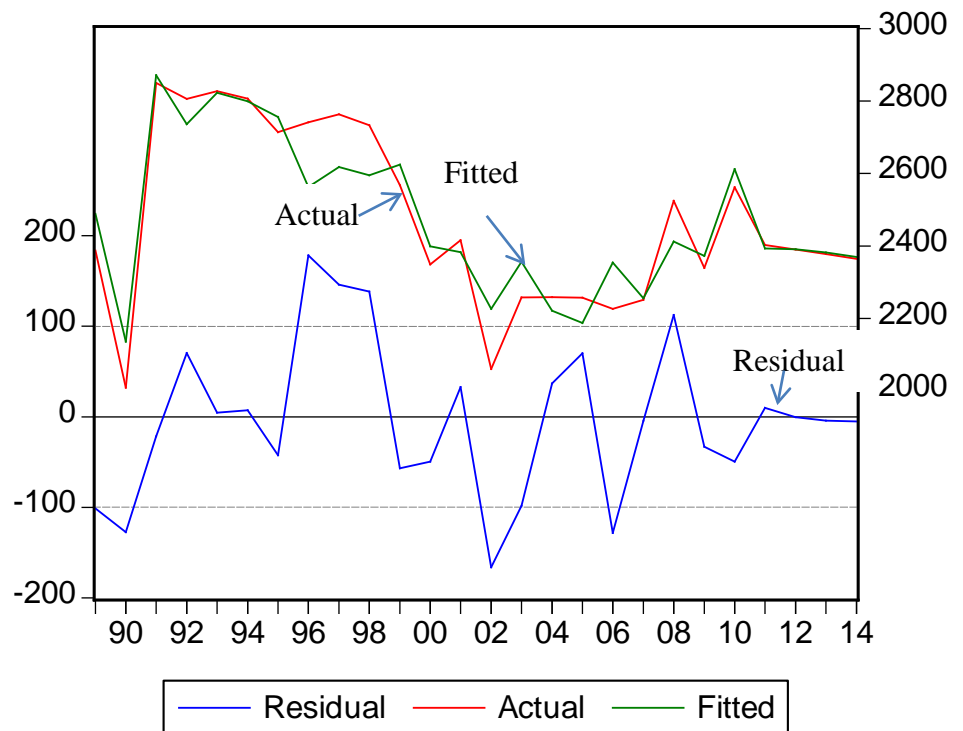


1

iv. Agricultural Model:



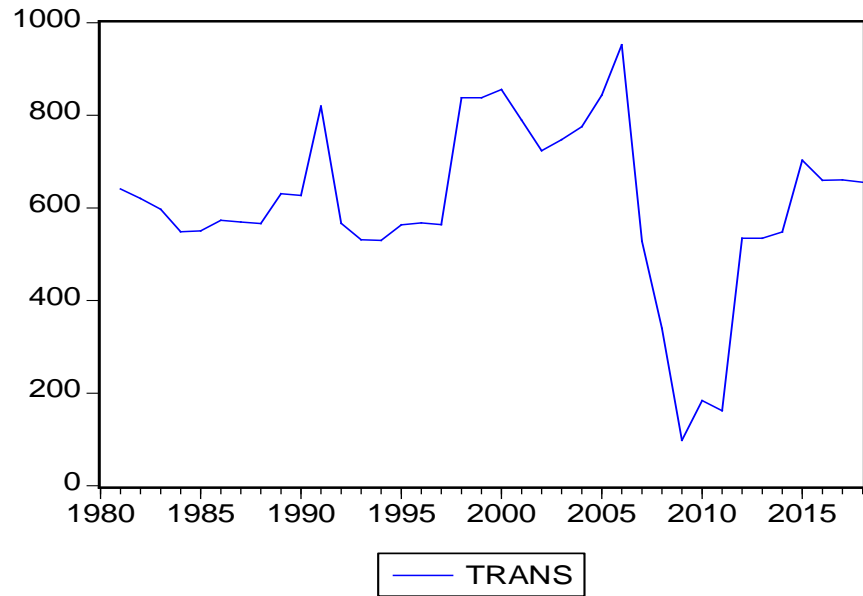
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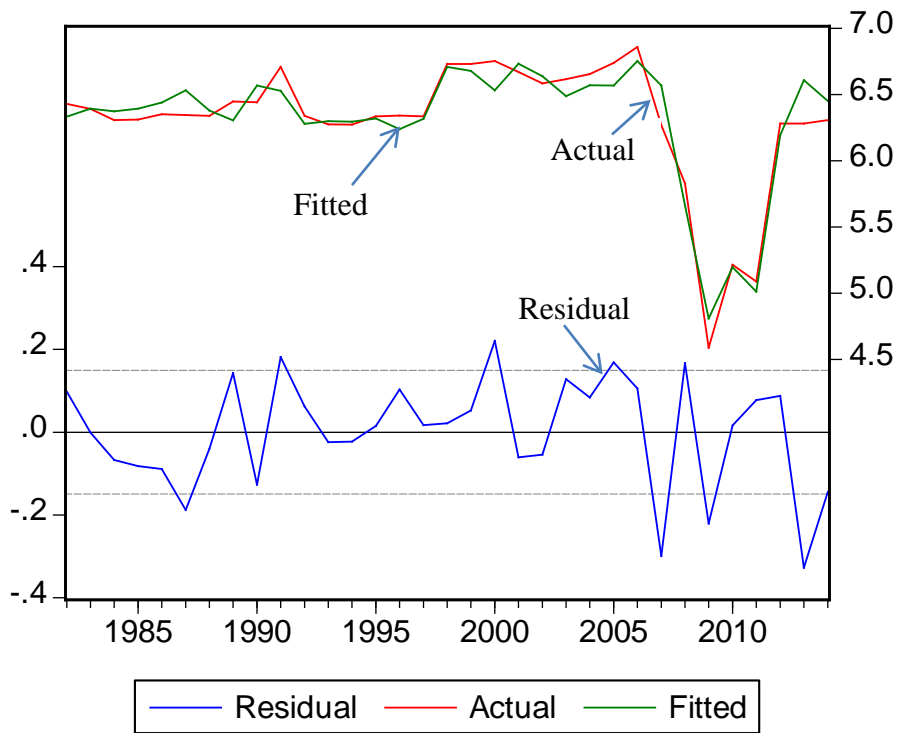
3

1

v. Transportation Model



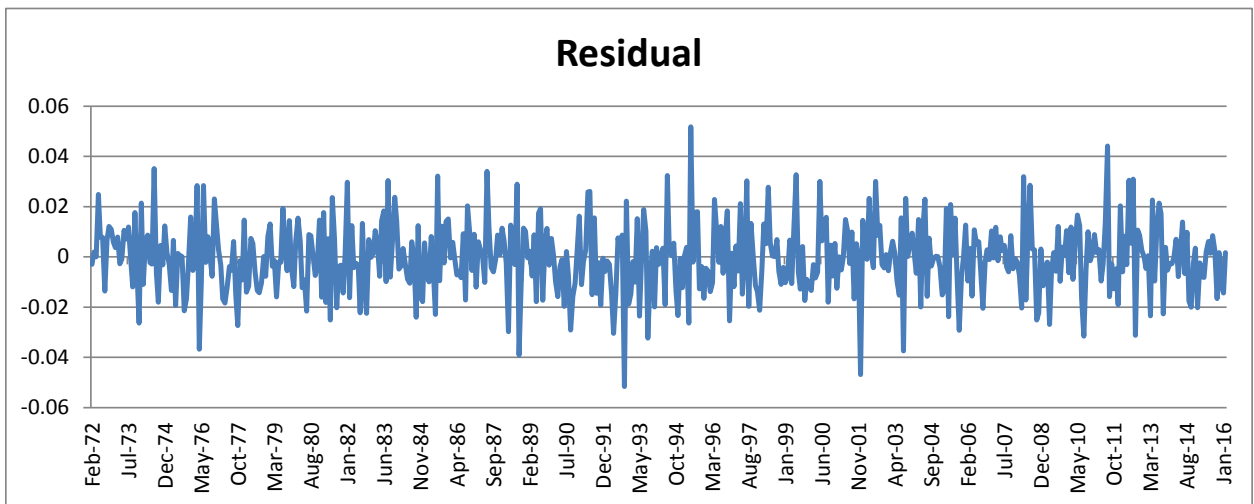
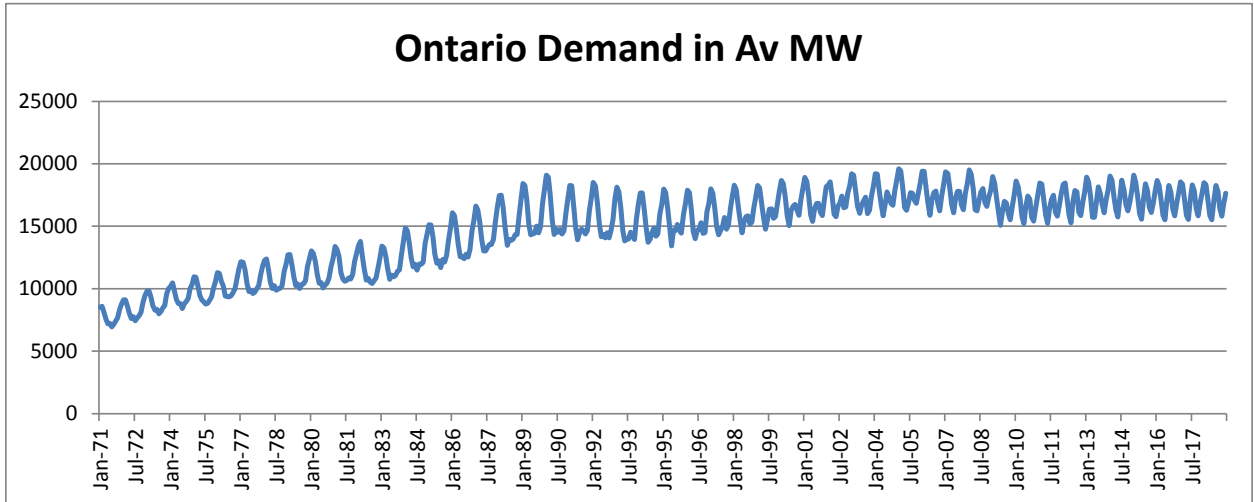
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3

4

1 **vi. State Space Model**
2



7 For each model, various statistics are provided in Appendices A-B of Exhibit E1, Tab 3,
8 Schedule 1, along with a discussion of results pointing to a good fit and reasonable residual
9 variance. The forecast trend in all models is consistent with the corresponding historical
10 trend. Residual errors are discussed in e) below.

- 11
12 e) Forecast error has not increased in relation to structural changes or other factors. Some
13 structural changes were present and addressed using dummy variables, including trend and
14 binary variables, as discussed in Appendices A-B of Exhibit E1, Tab 3, Schedule 1. An
15 exception to this is the residual for the share of each fuel source in total energy relative to

1 that for coal in the industrial model. The closure of coal-fired stations in Ontario in recent
2 years significantly impacted these relative shares. A dummy variable was used to capture
3 step-wise closures of coal-fired stations. The model residuals during the closure process
4 experienced an increased range of variations. This increase is naturally due to the magnitude
5 of closures and is expected to be temporary as the closure process has already ended.

1 **Energy Probe INTERROGATORY #005**

2
3 **Reference:**

4 Exhibit B1, Tab 1, Schedule 2, page 5

5
6 **Interrogatory:**

7 Preamble: "Hydro One has mitigated the impact of the costs of the changed BES definition on its
8 business by seeking and obtaining reduced compliance requirements for 111 BES elements from
9 the IESO that are not considered material to the power system."

- 10
11 a) Can Hydro One list the cost savings of those exemptions?
- 12
13 b) Can Hydro One provide an estimate of how those exemptions will impact, if at all, its
14 reliability metrics?

15
16 **Response:**

- 17
18 a) The expected cost savings for the reduced compliance requirements for 111 BES elements
19 are estimated to be \$6 million in O&M and \$14 million in capital over the test years.
- 20
21 b) The 111 BES elements, which are subject to reduced compliance requirements, are not
22 expected to impact Hydro One's reliability metrics.

1 **Energy Probe INTERROGATORY #006**

2
3 **Reference:**

4 Exhibit B1, Tab 1, Schedule 3, page 22

5
6 **Interrogatory:**

- 7 a) The CEA numbers dropped the July 8, 2013 event for Hydro One from its reliability
8 performance rankings.
- 9
10 b) Did it do the same for other utilities that experienced similar events? Please Comment.

11
12 **Response:**

- 13 a) Yes, July 8, 2013 event is excluded from Hydro One data and Canada composite data for
14 performance index calculation and ranking.
- 15
16 b) Yes. The exclusion criterion is based on the magnitude of estimated unsupplied energy to
17 customers for each event. Historically, three events had been excluded from performance
18 index calculation since 1991. These events are 1998 Eastern Ice Storm, 2003 Northeast
19 Blackout, and 2013 July 8 Great Toronto Area Flood.

1 **Energy Probe INTERROGATORY #007**

2
3 **Reference:**

4 Exhibit B1-2-2, attachment 1, page 26

5
6 **Interrogatory:**

7 Preamble: While Hydro One stated that for the average customers the transmission rate
8 represents 10% of the bill, one customer estimated it to be close to 25%.

- 9
10 a) Does Hydro One have any estimates on the percentage of transmission costs of the total bill
11 for the different rate classes?
12
13 b) Specifically for Toronto Hydro, please provide the Impacts for each rate class.
14

15 **Response:**

- 16 a) The percentage of transmission costs of the total bill is unique to each transmission
17 connected customer. The transmission costs depend on the customer's coincident and non-
18 coincident peak demand, and the rest of the charges depend on both the customer's peak
19 demand and energy consumption amount. As such, Hydro One can only provide the total
20 estimated percentage of transmission costs for all transmission connected customers; which
21 was calculated to be 8.3% of the total bill as stated in Exhibit H1, Tab 5, Schedule 1, Table 1.
22
23 b) Transmission connected customers are invoiced by the IESO. Hydro One does not have
24 information required to calculate all components of Toronto Hydro's bill from the IESO, and
25 therefore cannot estimate the impact on their total bill.

1 **Energy Probe INTERROGATORY #008**

2
3 **Reference:**

4 Exhibit B1, Tab 2, Schedule 4, page 8, Table 1

5
6 **Interrogatory:**

7 a) Can Hydro One calculate the “relative change in risk” if average investment in 2017 and
8 2018 increases by 2% annually?

9
10 b) Can Hydro One calculate the “relative change in risk” if average investment in 2017 and
11 2018 increases by 3% annually?

12
13 **Response:**

14 Parts a) and b): The reliability risk model determines relative change in risk based on assets, not
15 a change in dollars spent in capital. It is not possible to adjust the spending dollar level and
16 recalculate the relative change in risk. In order to recalculate a relative change in risk a number
17 of assumptions would need to be made regarding the existing plan put forward in this
18 application, including which of the assets will be replaced as planned and which are being
19 deferred. See Exhibit I, Tab 11, Schedule 2 (EP #2) and Exhibit I, Tab 1, Schedule 15 (Board
20 Staff #15) for additional information.

1 **Energy Probe INTERROGATORY #009**

2
3 **Reference:**

4 Exhibit B1, Tab 3, Schedule 1, page 1, table 1

5
6 **Interrogatory:**

7 Can Hydro One provide a table detailing the capital budget going back to 2006?

8
9 **Response:**

10 Please refer to Exhibit I, Tab 3, Schedule 46 for OEB-approved capital budgets going back to
11 2012, the timeframe prescribed by the OEB's filing requirements.

1 **Energy Probe INTERROGATORY #010**

2
3 **Reference:**

4 Exhibit B1, Tab 3, Schedule 2, page 2

5
6 **Interrogatory:**

7 Can Hydro One breakout how much of Sustaining Capital spending is to “ensure compliance
8 with regulatory, environmental and reliability standard”?

9
10 **Response:**

11 Please refer to Exhibit B1, Tab 2, Schedule 4 for an outline of how Hydro One develops its
12 sustainment investment plan. All sustaining capital investments undergo a review during
13 detailed scope development to ensure all applicable regulatory, environmental and reliability
14 standards are met. Spending to achieve applicable regulatory compliance is incorporated into the
15 total project cost.

16
17 For a breakout of expenditures where the direct outcome is compliance with regulatory
18 obligations, please refer to Figure 1 in Exhibit B1, Tab 2, Schedule 4.

1 **Energy Probe INTERROGATORY #011**

2
3 **Reference:**

4 Exhibit B2 Tab 1 Schedule 1 Page 24

5
6 **Interrogatory:**

7 Preamble: All measures are Benchmarkable, except

- 8 • Asset Management -In-Service Capital Additions as % of OEB Approved Plan
- 9 • Renewable Energy - % on-time completion of renewables connection impact assessments
- 10 • Regional Infrastructure - Regional Infrastructure Planning Progress - % Deliverables met.

- 11
- 12 a) Please explain why these measures are not benchmarkable (e.g. availability of data)?
 - 13
 - 14 b) What metrics other than achievement/activity, have been considered for these measures?
 - 15
 - 16 c) Please graph the Asset Management Measure showing: Plan ISA, Actual ISA and % of OEB
 - 17 Approved Plan 2011-2015.
 - 18
 - 19 d) On the same chart show the estimate and projections for 2016 and the 2017/18 Test Years.

20
21 **Response:**

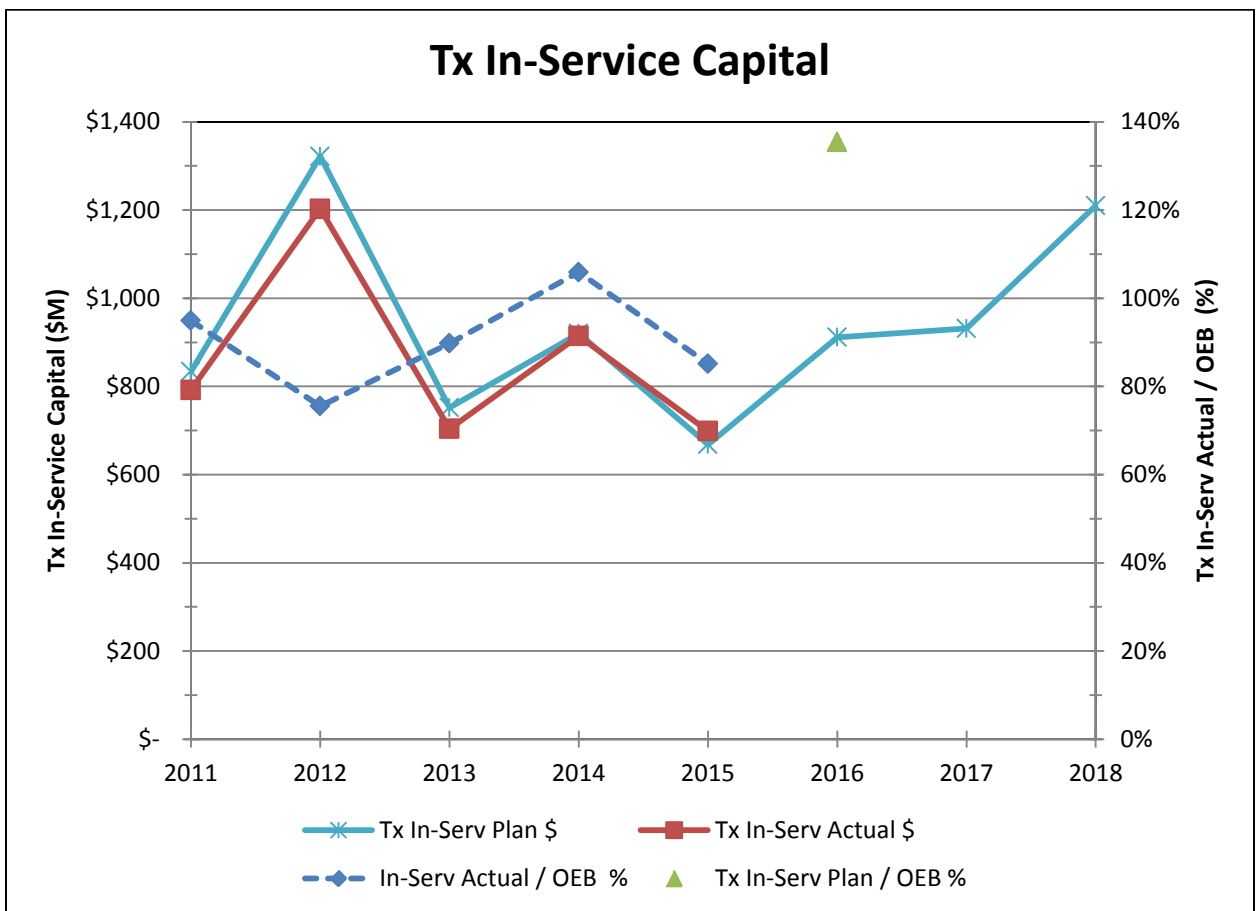
22 a) When developing the proposed scorecard, discrete data that provides viable comparisons to
23 the measures listed was not readily available from other transmitters. Large utilities
24 commonly compile costs and monitor projects in different ways making comparisons
25 difficult or not meaningful. These internal metrics will facilitate internal year over year
26 trending and provide the necessary insight into Hydro One's performance.

27
28 b) On Page 9-10 of Exhibit B2, Tab 1, Schedule 1, Hydro One lists a number of Tier 2 and Tier
29 3 measures that were considered and included for each category. These additional measures
30 are being tracked to give a further perspective on performance.

31
32 Some are new measures, which require data to be compiled over time and thus data was not
33 currently available. Others require new processes to be implemented in order to create the
34 data. Throughout the process of establishing the proposed scorecard, Hydro One sought to
35 include measures that focus on activity and achievement to drive actionable business
36 performance information.

1 Hydro One believes that the measures presented as Tier 1 on the main scorecard align with
2 the metrics found on the annual distribution scorecard that is submitted to the OEB. As
3 stated on Page 24 of the same Exhibit, “Hydro One expects the performance management
4 system to evolve as the Company learns from experience in using metrics and measuring
5 productivity.”

6
7 c) and d)
8



9

1 **Energy Probe INTERROGATORY #012**

2
3 **Reference:**

4 Exhibit B2 Tab 1 Schedule 1 Pages 18-20 Table 4 and Figures 5 and 6

5
6 **Interrogatory:**

- 7 a) Please Indicate the period when and areas where the RCE Metric has been/is used in the TX
8 Business--is it used by NERC, FERC and other Regulators in the US and Canada? Please
9 clarify and provide details.
- 10
- 11 b) Why has HO now decided to use RCE for Regulatory reporting? Has the OEB approved use
12 of the RCE as an appropriate Metric?
- 13
- 14 c) How does the RCE Metric compare to other Metrics HO TX is now using, including those
15 encompassed in the TX Scorecard.
- 16
- 17 d) With regard to the RCE formula, why is Gross Assets used, rather than Net/Book Value of
18 the TX Assets? Discuss why Assets placed in service many years ago will be lower in
19 original cost than recent assets and why net assets (cost less accumulated depreciation) would
20 not be an appropriate numerator. See Report Page 10 B2-1-1 in formulating your response.
- 21
- 22 e) With regard to the TX Total Cost Benchmarking Study, are RCE Metrics provided for the
23 peer group? If so, please provide references and a summary of the data.
- 24
- 25 f) If not, please request the Consultants to provide the available RCE data and explanatory
26 notes.
- 27
- 28 g) In addition, regardless of the availability of RCE metrics, please request the Consultants to
29 provide an expert opinion on the merits of RCE Metrics in conjunction with other TX
30 Metrics.
- 31

32 **Response:**

- 33 a) Please see answer to Exhibit I, Tab 3, Schedule 61, part a). Hydro One is not aware of
34 whether this metric and formula have been presented to a regulatory body before this filing.
- 35
- 36 b) Hydro One believes that this metric is a useful measure of key data points that are relevant to
37 the assessment of its performance. The reduction of unplanned outages and maintenance

Witness: Michael Vels

1 costs on Hydro One assets are key objectives to running an efficient and reliable transmission
2 utility. The RCE allows external stakeholders a transparent view of the trend between these
3 data points.

4
5 As this is the first time the OEB has viewed this metric they have not yet provided
6 comments.

- 7
8 c) The RCE metric is a relational metric and is meant to measure the relationship between three
9 high level data points over time. The metric focuses on the investment in system assets as
10 well as the efficiency of the maintenance program in order to produce the outcome of
11 reducing unplanned outages. It is through reducing unplanned outages that Hydro One is
12 providing value for the customer for its maintenance and capital spending.

13
14 The RCE is the first relational metric that Hydro One has implemented, whereas the other
15 scorecard metrics are based on trends and lower level operational metrics such as cost per
16 unit.

- 17
18 d) Gross assets are used as even if an asset has been fully depreciated it will still require
19 maintenance and have the potential to cause an unplanned outage. As a result, by using net
20 assets there would be many assets that would be impacting only two of the three data points,
21 making the comparison between all three data points less correlated and less accurate.

22
23 By using net assets instead of gross assets, a transmitter would also be motivated to replace
24 any asset that has been fully depreciated rather than making smart investments in replacing
25 only assets that are causing unplanned outages. Tracking the RCE metric through gross
26 assets aligns Hydro One's interests to those of the rate payer.

- 27
28 e) The RCE metrics are not included in the Transmission Total Cost Benchmarking Study.
29
30 f) The RCE metric and any comparison to other utilities are outside of the scope of the
31 Transmission Total Cost Benchmarking study.
32
33 g) This request is outside of the scope of the Transmission Total Cost Benchmarking Study.

1 **Energy Probe INTERROGATORY #013**

2
3 **Reference:**

4 Exhibit B2, Tab 2, Schedule 1, Page 20 of Report, Page 15 of Exhibit

5
6 **Interrogatory:**

7 Preamble: Using the TADS metrics, Hydro One's sustained outage frequency for the lower
8 voltage lines (below 200kV) was the highest in the peer group (Figure 17). Even excluding worst
9 performing circuits (Figure18), Hydro One's sustained outage frequency for the lower voltage
10 lines remains among the highest in the peer group.

- 11
- 12 a) Should Hydro One have different Reliability Goals for lower voltage lines? Please discuss,
13 including geographic/density considerations.
- 14
- 15 b) Please provide the load and number of customers by type (direct, LDC etc,) supplied by low
16 voltage lines.
- 17
- 18 c) How much of the Capital Program relates to Lower Voltage lines and related
19 Transformation?
- 20
- 21 d) Should the data provided in the response indicate any change in priority for low voltage
22 lines? Please discuss.

23
24 **Response:**

- 25 a) Through the Customer Consultation process, feedback was received indicating needs and
26 preferences for a set of metrics that were geographical in nature. Customers indicated a
27 desire to know how they compare to other local-area transmission connected customers and
28 understood the importance of having comparability to neighbouring customers in the same
29 geographical area of the Hydro One transmission network. While voltage parameters were
30 not the indicated need, however, Hydro One will assess the Navigant benchmarking study
31 results and conduct further review of internal metrics to determine whether further
32 segmentation of metrics with regard to both geographical, voltage bands and load size is an
33 appropriate measure to institute going forward.

1 b) Please see below the number of customers supplied by low voltage lines by type.
2

Type	Count
Direct Industrial	80
LDC	41
Power Producer	120

3
4
5 c) The investment plans are not managed and tracked based on voltage level. However, to
6 provide some context, 60% of the total km of lines selected for refurbishment in the next 5
7 years is 115kv while the remaining 40% is 230kv. For station sustainment investment
8 projects over the next 5 years, 5% are connected to the 500 kV network, 51% are connected
9 to the 230 kV network, and the remaining 44% are connected to the 115 kV network.
10

11 d) See response in a) above, and as follows.
12

13 Several factors are considered in the prioritization of investments, as noted within the
14 evidence filed, and voltage level by itself it not considered a driving factor. Rather, in
15 addition to the factors described in the Asset Risk Assessment process (Exhibit B1, Tab 2,
16 Schedule 5), factors such as the average circuit length, the exposure of the circuit, a very
17 harsh Canadian climate vulnerable to inclement weather, combined with geographical areas
18 comprised of regions without network redundancy and low load density must be considered
19 in the overall evaluation of the prioritization of investments.

1 **Energy Probe INTERROGATORY #014**

2
3 **Reference:**

4 Exhibit B2, Tab 2, Schedule 1, Pages 29-30 of Report

5
6 **Interrogatory:**

7 Preamble: Although the hourly cost of overtime, which is driven by negotiated labour contracts,
8 was higher than the peer group (Figure 30), Hydro One's overtime usage, as a percent of total
9 hours, was consistent with other companies in the peer group (Figure 31). However, under the
10 existing labour agreements, it also means that additional hours begin at double-time pay, rather
11 than time and a half.

12
13 Overtime cost for Hydro One was generally higher than the other reporting companies.
14 Significant benefit can be realised by minimising overtime. Page 30 of Report.

- 15
16 a) Please indicate the basis of the current overtime policy.
- 17
18 b) Please provide the data showing overtime paid relative to the peer group (include
19 explanations for normalizing data).
- 20
21 c) Please indicate the Average Overtime in 2015 as a percentage of base pay for Union, Society
22 and MCP employees.
- 23
24 d) Please provide the Calculation of Total Overtime paid in 2015 and provide an alternative cost
25 with time and half (except for statutory holidays).

26
27 **Response:**

- 28 a) Terms and Conditions related to overtime are governed by collective agreements and the
29 Employment Standards Act. In addition, there are internal processes and reporting that
30 enables managers to effectively use and monitor overtime usage.
- 31
32 b) As referenced, the study includes average numbers for both overtime hours and cost per
33 overtime hours worked for a few staff positions. What is unknown is how many employees
34 of each staff category the other companies have. Consequently it is impossible to compute the
35 total OT costs for the comparator companies. In other words, with the available data, it is
36 possible only to compute the average OT cost of an employee of a few types, but not the total
37 cost of OT to each company.

1 For the Transmission Lineworker category, the table below shows the OT cost for an average
 2 Lineworker:

3
 4 c)

2015	
REPRESENTATION	OT % of Base Pay
PWU Reg	19.4
SOCIETY Reg	4.9
MCP Reg	0.1
Total Reg	12.7

5
 6 • Note: MCP employees do not receive OT payments. This data would reflect some employees previously in
 7 a represented role and in a non-represented role at year end.

8
 9 d) Calculation of 2015 Overtime for Regular Employees

Company	Representation	Regular	Number of Employees	Overtime Dollars	Overtime Paid at Straight Time	Overtime Paid at 1.5	Overtime Paid at 2.0
NETWORKS	MCP	Regular	585	66,188	0	30,527	35,661
NETWORKS	PWU	Regular	3,350	57,001,053	211,483	9,214,789	47,574,781
NETWORKS	SOC	Regular	1,285	6,732,360	55,214	3,397,835	3,279,311
REG TOTAL			5,220	63,799,601	266,697	12,643,151	50,889,754

11
 12
 13 On a best efforts basis, Hydro One estimated the alternative cost of 2015 overtime if the
 14 double time overtime was paid at 1.5 instead to be \$ 51,077,162.

1 **Energy Probe INTERROGATORY #015**

2
3 **Reference:**

4 Exhibit C1, Tab 2, Schedule 2, Page 50

5
6 **Interrogatory:**

7 Preamble: The overall planned expenditures for the overhead lines program in 2017 and 2018 are
8 \$20.9 million and \$20.8 million, respectively. This represents an increase over the bridge and
9 historic years, due to the need to conduct more condition assessment on deteriorating assets.

- 10
11 a) Please provide the tangible outcomes related to reduction of premature failures that justifies
12 the Program increase.
13
14 b) Assuming that the use of activity indicators is NOT a good measure does HO agree that
15 reduction of premature failures is the appropriate measure?
16
17 c) How is HO measuring Benefit/Cost related to increase Preventative Expenditures? Please
18 provide details and results.
19

20 **Response:**

- 21 a) The need for more condition assessments is not directly reliant on premature failures. Please
22 refer to Exhibit I, Tab 1, Schedule 115 (Board Staff #115) for additional information.
23
24 b) Condition assessments are intended to determine the condition of each asset and prevent
25 failures by replacing the asset prior to failure. Premature failures are not an appropriate
26 measure to justify the level of required condition assessments for each asset.
27
28 c) Outage frequency and duration trending for major transmission line assets is a good measure
29 for Hydro One's effective preventative maintenance. The benefit is that the outage trend
30 remains constant. In addition a second measure demonstrating cost benefit is a constant
31 corrective maintenance ratio to the overall maintenance expenditure as described in Exhibit I,
32 Tab 8, Schedule 7 (SEP #7).

1 **Energy Probe INTERROGATORY #016**

2
3 **Reference:**

4 Exhibit C1, Tab 3, Schedule 3, Table 2

5
6 **Interrogatory:**

7 Preamble: The increase in 2016 Corporate Management Costs and the 2017 to 2018 forecast
8 costs stems from changes in compensation.

- 9
10 a) Please provide complete details of the doubling of Corporate Management costs from 2016-
11 2017/18.
- 12
13 b) Specifically Provide details of changes in Compensation from Board approved 2015 for 2016
14 Bridge Year and 2017-18 Test Years.
- 15
16 c) Please provide copies of Government and Board Approvals of the changes.

17
18 **Response:**

- 19 a) Please refer to Exhibit I, Tab 4, Schedule 12.
- 20
21 b) Please refer to Exhibit I, Tab 11, Schedules 23 and 24.
- 22
23 c) Please refer to Exhibit I, Tab 11, Schedules 23 to 25.

1 **Energy Probe INTERROGATORY #017**

2
3 **Reference:**

4 Exhibit C1, Tab 3, Schedule 3, Table 4

5
6 **Interrogatory:**

- 7 a) Please explain basis of premiums paid for Corporate Functions and Services.
- 8
- 9 b) Please explain the reasons for the major increase starting in 2016 and continuing in the Test
- 10 Years.

11
12 **Response:**

- 13 a) Table 4 of the above-mentioned Exhibit presents the total figures for Hydro One Inc.
- 14 “Corporate Functions and Services” insurance policies are liability policies that cannot be
- 15 readily assigned to a specific line of business, such as aviation or automobile liability policies
- 16 that are charged directly to the fleet services organization within Hydro One.
- 17
- 18 b) Just over 50% of the increase reflected in Table 4 is due to the inclusion of the U.S. dollar
- 19 exchange rate on U.S. dollar denominated policies. The remainder of the increase represents
- 20 an increase in premiums due to the acquisitions of electric distribution companies and the
- 21 secondary equity trading of equity securities.

1 **Energy Probe INTERROGATORY #018**

2
3 **Reference:**

4 Exhibit C1, Tab 3, Schedule 2, Page 12 and Appendix B, Table 1

5
6 **Interrogatory:**

- 7 a) With regard to former Hydro One Employees, have these been normalized in the INERGI
8 work force, or are there still residual differences in compensation and benefits?
9
10 b) Please provide the Calculations of the 2016 and 2017-18 ECA amounts.
11
12 c) Please explain the ECA Changes from the previous contract and provide an illustrative
13 example.
14
15 d) Other than the fact ECA is a negotiated item, please explain why it is fair and appropriate.
16

17 **Response:**

- 18 a) With regard to former Hydro One employees, Hydro One does not have a line of sight to the
19 compensation and benefits of Inergi staff, as they are no longer Hydro One employees.
20
21 b) ECA is calculated using the CANSIM Index for “All-items excluding energy” (v41692050).
22

23 2016 Calculation:

24 Index at November 2014: 123.9

25 Index at November 2015: 126.4

26 $(126.4-123.9)/123.9 = 0.0202$

27 ECA for 2016 is 2.02%

28
29 The 2017 and 2018 rates are determined using an estimate for inflation. The estimates used
30 for 2017 and 2018 are 1.7% and 1.8%, respectively.
31

- 32 c) In the previous contract, the ECA was referred to as a cost of living adjustment (“COLA”),
33 but the ECA rate methodology has not changed from the previous contract.
34
35 d) The ECA rate is not negotiated. The CANSIM index for “All items- excluding energy” is
36 publicly available. CANSIM is Statistics Canada's key socioeconomic database.

Witness: Gary Schneider

1 **Energy Probe INTERROGATORY #019**

2
3 **Reference:**

4 Exhibit C1, Tab 3, Schedule 2, Page 6

5
6 **Interrogatory:**

- 7 a) Please provide the Benchmarking that resulted in the BGI Contract.
- 8
- 9 b) BGI Fees are subject to an economic cost adjustment using a government published index
10 that reflects movements in a broad-based consumer-focused price index. Please provide a
11 breakdown of BGIS fees, including details of escalation factor.
- 12
- 13 c) What performance factors are included in the BGIS contract? Please provide a copy of these.
- 14

15 **Response:**

- 16 a) The benchmark used for evaluating and awarding the contract to BGIS was Hydro One's
17 2012 base cost. The base cost covered facilities management, accommodation activities and
18 related maintenance and repair work at Hydro One's operations centres, stations,
19 administrative facilities and rights of ways
- 20
- 21 b) Refer to Exhibit I, Tab 13, Schedule 16 for information on BGIS contract costs. The fees
22 associated with the BGIS contract include a management fee for the oversight of the contract,
23 and reimbursable costs of services that are passed through to Hydro One without a mark-up.
24 The inflation index used is "v41692050 for Ontario CPI; all-items excluding energy", as
25 published by Statistics Canada.
- 26
- 27 c) Please see response d) in Exhibit I, Tab 8, Schedule 9.

1 **Energy Probe INTERROGATORY #020**

2
3 **Reference:**

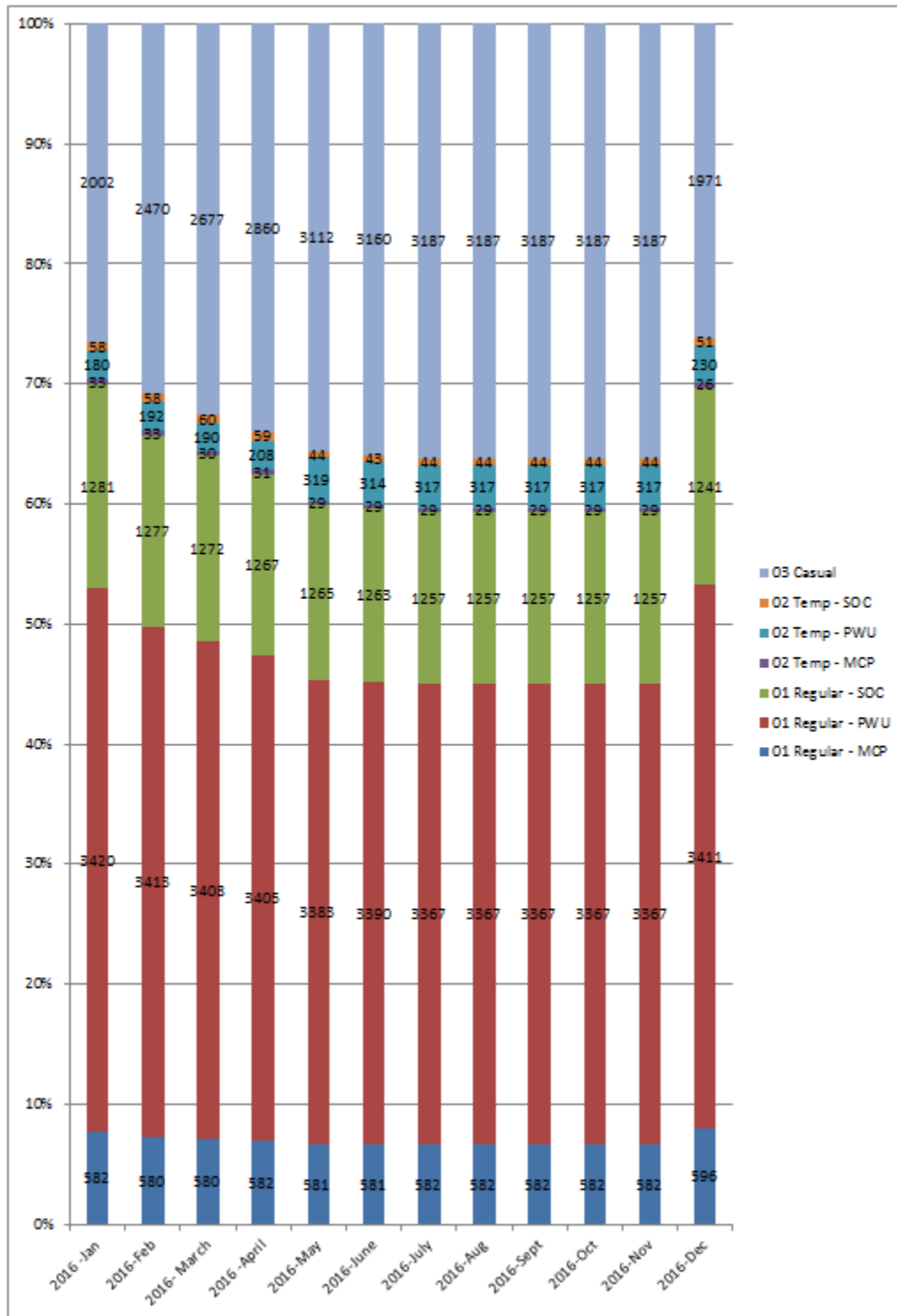
4 Exhibit C1, Tab 4, Schedule 1, Figure 6

5
6 **Interrogatory:**

- 7 a) Provide a copy of the chart with incumbent employees by category by month, rather than %
8 of total workforce.
- 9
10 b) Please provide a chart with employees by category YTD 2016 and projection for rest of year.
- 11
12 c) Please provide projection of Total Employees by category for 2017 and 2018 listing all
13 relevant assumptions

14
15 **Response:**

- 16 a) The chart below indicates a) the incumbent employees by category by month and b)
17 employees by category YTD 2016 and projection for rest of year.



Percent Use of Employee Categories (Monthly 2016)

1
 2
 3

Witness: Keith McDonell

- 1 b) Please refer to chart provided for a).
- 2
- 3 c) Please refer to Payroll Table at Exhibit C1, Tab 4, Schedule 1, Attachment 1.

1 **Energy Probe INTERROGATORY #021**

2
3 **Reference:**

4 Exhibit C1, Tab 4, Schedule 1, Table 1

5
6 **Interrogatory:**

- 7 a) Given the workforce profile and projected planned retirements, explain why Hydro One is
8 not significantly increasing hiring of apprentices.
9
10 b) Please provide the current sourcing for Apprentices, including Community Colleges.

11
12 **Response:**

- 13 a) For Provincial Lines, the apprentice pool is maintained to keep approximately 350
14 apprentices in the talent pool at any given time. Based on projected future retirement and
15 work program forecasts, Hydro One hired 80 apprentices earlier in 2016 and a further 16 will
16 be hired in the fall of 2016 for a total of 96 new apprentices in 2016.

17
18 Stations electrical apprentice hiring is less in 2016 due to lower than expected retirements in
19 the electrical trade classification.

- 20
21 b) Hydro One posts apprentice hiring opportunities on the Hydro One Career site as well
22 through the PWU's external website. If required, postings will also be in a local community
23 newspaper.

1 **Energy Probe INTERROGATORY #022**

2
3 **Reference:**

4 Exhibit C1, Tab 4, Schedule 1, Page 17

5
6 **Interrogatory:**

7 Preamble: Hydro One engaged Willis Towers Watson to undertake competitive market
8 assessments and sought advice from Hugessen Consulting to determine the basis for the
9 components of a new management compensation program.

10
11 Please provide a copy of the Towers Watson Report and the Advice provided by Hugessen
12 Consulting.

13
14 **Response:**

15 See Exhibit I, Tab 06, Schedule 57, Attachments #2 and #3 for the Willis Towers Watson report
16 and Attachment #1 for the Hugessen report.

1 **Energy Probe INTERROGATORY #023**

2
3 **Reference:**

4 Exhibit C1, Tab 4, Schedule 1, Pages 17/18

5
6 **Interrogatory:**

7 Preamble: To recruit a new Chief Executive Officer (“CEO”) and Chief Financial Officer
8 (“CFO”), Hugessen Consulting provided advice to the Hydro One Board on an appropriate
9 compensation framework and more broadly, to provide advice on a new compensation
10 structure to be established in 2016.

11
12 a) Please provide the Hugesson Consulting Report.

13
14 b) Please provide the Recommendations made to the Government and the Hydro One Board
15 based on the Report.

16
17 c) Please provide the Total Compensation breakdown for the CEO and CFO for 2016 and
18 projected for 2017-2018; list all relevant assumptions related to the projections.

19
20 d) Compare the Compensation for the New Positions to the Compensation provided in 2014 and
21 2015 for similar positions. Indicate the basis of the current and former comparisons used to
22 establish compensation.

23
24 **Response:**

25
26 a) Please see Exhibit I, Tab 6, Schedule 57, Attachment 1. Hugessen Consulting prepared the
27 report *Preliminary CEO/CFO Pay Benchmarking* in April 2015 for the purposes of
28 establishing CEO and CFO compensation. As per the part (d) of this interrogatory response,
29 annually, Hydro One's Board of Directors will review the compensation level of these
30 executives.

31
32 b) Please see Attachment 1 to this response.

33
34 c) Compensation assumptions are based on the Hugesson Report provided in Exhibit I, Tab 6,
35 Schedule 57. Details on the compensation structure are provided below. A 2% escalator was
36 applied to the salary portion in 2017 and in 2018.

1

Compensation Mix

For the Chief Executive Officer and Chief Financial Officer, target total direct compensation will consist of the elements noted below. Determinations for the other NEOs have not yet been made.

	Chief Executive Officer		Chief Financial Officer	
	Target	Percentage total direct compensation	Target	Percentage of total direct compensation
Base Salary	\$850,000	21%	\$500,000	33%
Short Term Incentive ⁽¹⁾ . . .	90% of base salary	19%	60% of base salary	20%
Long Term Incentive ⁽²⁾ . . .	280% of base salary	60%	140% of base salary	47%

Notes:

- (1) Each of the Chief Executive Officer and the Chief Financial Officer may elect to receive up to 100% of his annual incentive bonus as deferred share units.
- (2) In addition to its general discretion with respect to long term incentive awards, the Board has the discretion to vary the actual award level for the long term incentive from 75% to 125% of the target award level based on a range of factors, including individual executive performance and company performance.

2
3

d) In 2014, Hydro One’s CEO compensation was \$745,208, including benefits, and Hydro One’s CFO compensation was \$521,635, including benefits. The new CEO and CFO positions attract higher compensation than the former CEO/CFO due to the need for a different skill set. As described in response (a) in Exhibit I, Tab 1, Schedule 1, Hydro One’s Independent Board of Directors determined that in order to improve the performance of the company, it was necessary to increase the commercial orientation of the organization; that is, increase the company’s focus on customers, create greater corporate accountability for performance outcomes and drive company-wide increases in efficiency and productivity.

12
13
14
15
16
17

In order to achieve these commercial objectives, the Independent Board of Directors determined that senior managers with proven track-records of delivering these targets were needed. The individuals with these skills have been added to Hydro One’s leadership team and have been empowered by the Independent Board of Directors to achieve these commercial objectives.

18
19
20
21

The successful achievement of these objectives will be evident in all facets of Hydro One’s businesses, which as of the date of this application are 99% rate regulated (by revenue).

22
23
24
25

Hugessen Consulting was engaged to undertake a competitive market assessment for the new CEO and CFO appointments. Given certain challenges in benchmarking the CEO and CFO positions, Hugessen considered and benchmarked these positions against a few comparator groups. Based on these market assessments, the CEO total direct compensation was

1 positioned close to the average (P50) of four other larger Canadian utilities and is in the
2 fourth quartile of the bottom 30 companies making up the S&P/TSX 60 Index, and the
3 CFO's total direct compensation is also in the bottom quartile of the S&P/TSX 60 Index.

Hydro One Inc.
Submission to the Board of Directors



Date: August 31, 2015

Re: Hydro One Inc. – Appointment of Officer and Compensation Matters

I am submitting to the Board for approval the following resolutions: the appointment of Mayo Schmidt as President and CEO of Hydro One Inc., effective September 3, 2015 and approval of his compensation; approval of the compensation for Michael Vels, Chief Financial Officer; and, the appointment of Carmine Marcello as Special Advisor to the President and CEO and Chair of the Board, effective September 3, 2015.

A handwritten signature in black ink that reads "D Denison". The signature is stylized with a large, bold "D" and a cursive "Denison".

David Denison
Chair of the Board

HYDRO ONE INC.

RESOLUTION OF THE BOARD OF DIRECTORS

Appointment of President and Chief Executive Officer and Approval of Compensation

After consideration, upon motion duly made, seconded, and unanimously carried, be it

RESOLVED:

THAT Mayo Schmidt is hereby appointed President and CEO of Hydro One Inc. effective September 3, 2015 to hold such office until he resigns, is removed or until his successor is appointed.

AND THAT the total direct pay for Mr. Schmidt for the year 2016 is hereby approved as follows:

	Base Salary	Target STIP	Target LTIP	Target Total Direct Compensation
Chief Executive Officer	\$850,000	\$765,000	\$2,385,000	\$4,000,000

HYDRO ONE INC.

RESOLUTION OF THE BOARD OF DIRECTORS

Confirmation of Compensation of the Chief Financial Officer

After consideration, upon motion duly made, seconded, and unanimously carried, be it

RESOLVED:

THAT the total direct pay for Michael Vels, Chief Financial Officer of Hydro One Inc., for the year 2016 is hereby approved as follows:

	Base Salary	Target STIP	Target LTIP	Target Total Direct Compensation
Chief Financial Officer	\$500,000	\$300,000	\$700,000	\$1,500,000

HYDRO ONE INC.

RESOLUTION OF THE BOARD OF DIRECTORS

Appointment of Special Advisor to the President and CEO and Chair of the Board of Hydro One Inc.

WHEREAS Carmine Marcello has submitted his resignation from the Board of Directors of Hydro One Inc., effective as of September 3, 2015;

AND WHEREAS Mr. Marcello has agreed to be a Special Advisor to the President and CEO and Chair of the Board of Hydro One Inc.

After consideration, upon motion duly made, seconded, and unanimously carried, be it

RESOLVED:

THAT Carmine Marcello is hereby appointed Special Advisor to the President and CEO and Chair of the Board of Hydro One Inc.;

AND THAT Mr. Marcello's employment agreement and continuity agreement are not impacted by his resignation from the Board of Directors.

RESIGNATION

TO: HYDRO ONE INC. (the "Corporation")

**AND TO: The Board of Directors of the Corporation
The Sole Shareholder**

The undersigned hereby resigns as a Director of the Corporation, effective as of September 3, 2015.

DATED as of the 26th day of August, 2015.


Carmine Marcello

Hydro One Inc.

Submission to the Human Resources Committee



Date: August 24, 2015

Re: Compensation Peer Group – CEO & CFO

I am requesting that the Committee approve the Peer Group used for pay benchmarking for the CEO and CFO positions.

Please refer to the attached presentation by Hugessen Consulting.

Yours sincerely,

A handwritten signature in black ink that reads "Judy McKellar". The signature is written in a cursive style with a large initial "J" and "M".

Judy McKellar
Senior Vice President, People & Culture/Health Safety & Environment

Compensation Peer Group – CEO and CFO

Resolution:

After consideration, upon motion duly made, seconded, and unanimously carried, be it
RESOLVED:

THAT the Human Resources Committee approve the Compensation Peer Group for the
Chief Executive Officer and Chief Financial Officer positions.



Proxy Peer Group for CEO and CFO Pay Benchmarking

For Approval at the August 24, 2015 HRC Meeting

Introduction and Context

- At the August 11th HRC meeting, the Committee had a chance to review the pay benchmarking peer groups in the context of setting CEO and CFO pay
- Companies were selected based on being generally similar in size and scope of operations to Hydro One, with industry relevance, as follows:
 - Direct industry peers (large Canadian utility companies, n = 4)
 - Comparable business model within the broader energy industry (pipeline / storage companies, n = 4)
- The primary group developed by Hugessen was selected by considering the four largest TSX utility companies as being the most comparable to Hydro One, with comparably sized pipeline / storage companies to provide additional data points (see next page for a summary of key financials)
- It is appropriate for the HRC to approve this pay benchmarking peer group for disclosure in the prospectus

ATCO Ltd.	AltaGas Ltd.
Emera Incorporated	Inter Pipeline Ltd.
Fortis Inc.	Keyera Corp.
TransAlta Corp.	Pembina Pipeline Corporation

Note: at this time it is not necessary to extend this same peer group for the other NEOs; this will be addressed in Fall 2015 as part of the broader review.

Summary of Pay Benchmarking Peer Group

The below table shows the key financial metrics of the primary pay benchmarking peer group companies. All figures are as at the original screening date (May 1, 2015)

Company	Industry Sector	Primary Industry	TEV	Market Cap	Revenues	Assets	EBITDA
Fortis Inc.	Utilities	Electric Utilities	\$24,439	\$10,841	\$5,861	\$27,986	\$1,863
ATCO Ltd.	Utilities	Multi-Utilities	\$15,136	\$5,107	\$4,400	\$17,955	\$1,586
Emera Incorporated	Utilities	Electric Utilities	\$10,672	\$5,863	\$2,822	\$10,192	\$898
TransAlta Corp.	Utilities	Independent Power Producers and Energy Traders	\$9,039	\$3,322	\$2,441	\$10,050	\$969
Pembina Pipeline Corporation	Energy	Oil and Gas Storage and Transportation	\$18,199	\$14,503	\$5,464	\$11,738	\$850
Keyera Corp.	Energy	Oil and Gas Refining and Marketing	\$8,639	\$7,356	\$3,317	\$3,908	\$618
AltaGas Ltd.	Energy	Oil and Gas Storage and Transportation	\$9,346	\$5,520	\$2,303	\$8,619	\$541
Inter Pipeline Ltd.	Energy	Oil and Gas Storage and Transportation	\$15,349	\$10,512	\$1,551	\$8,734	\$758

Summary Statistics

75th Percentile			\$16,061	\$10,594	\$4,666	\$13,292	\$1,123
Median			\$12,904	\$6,610	\$3,070	\$10,121	\$874
25th Percentile			\$9,269	\$5,417	\$2,406	\$8,705	\$723

Hydro One (Pro Forma)	Utilities	Electric Utilities	\$22,000	\$15,000	\$6,592	\$22,892	\$1,861
------------------------------	------------------	---------------------------	-----------------	-----------------	----------------	-----------------	----------------

Source: S&P Capital IQ; all data as at May 1, 2015. CAD \$000s. Note that Hydro One valuations represent estimates at this time.

Energy Probe INTERROGATORY #024

Reference:

Exhibit C1, Tab 4, Schedule 1, Pages 18/19

Interrogatory:

Preamble: Willis Towers Watson conducted market assessments for MCP Bands 3-10 (SVP to Administration roles). Executive level (Bands 3-4) compensation was assessed against a peer group consisting of twenty-one companies that included utilities and other Canadian publicly traded companies.

- a) Please provide the Willis Towers Watson Report for Executive Level bands.
- b) How does the methodology compare to the Hay Points system used by the IESO? Please provide a Side by Side comparison.
- c) Please provide the Recommendations made to the Hydro One Board based on the Report.
- d) Please provide the Total Compensation breakdown for the Executive Level for 2016 and projected for 2017-2018. List all relevant assumptions related to the projections.

Response:

- a) Please see Exhibit I, Tab 6, Schedule 57, Attachment 2.
- b) Hydro One has no information on how the IESO uses the Hay Points system to rate their job classifications.
- c) Please see Attachment 1 to Exhibit I, Tab 11, Schedule 25.
- d) The requested information is provided in the table below.

Year	MCP - Executive (MCP Bands 1-4)				
	TOTAL WAGES	Base Pay	Short Term Incentive	Long Term Incentive	Other Allowances
2016	10,958,387	5,891,365	2,801,617	2,079,903	185,502
2017	16,200,873	6,941,417	3,921,159	5,149,085	189,212
2018	19,553,320	7,080,245	4,038,793	8,241,284	192,997

A 2% escalation was built into the model for each of 2017 and 2018.

Energy Probe INTERROGATORY #025

Reference:

Exhibit C1, Tab 4, Schedule 1, Pages 18/19

Interrogatory:

Preamble: Non-executive level (Bands 5-10) compensation was assessed by segmenting these roles into Core Operations and Support Services.

- a) If not included in the Report in the previous request, please provide the Willis Towers Watson Report for non-executive bands.
- b) Please provide the Recommendations made to the Hydro One Board based on the Report and the minute approving the recommendations.
- c) Please provide the Total Compensation breakdown for the Non-executive level (Bands 5-10) for 2016 and projected for 2017-2018; list all relevant assumptions related to the projections.

Response:

- a) Please see Exhibit I, Tab 6, Schedule 57, Attachment 3.
- b) Attached are the recommendations made to the Hydro One Board based on the report, which recommendations were approved by the Hydro One Board.
- c) The total compensation breakdown for the non-executive level (Bands 5-10) for 2016 to 2018 is shown in the table below.

Level	Average 2016				Average 2017				Average 2018			
	Salary	STI	Powerflex	Total	Salary	STI	Powerflex	Total	Salary	STI	Powerflex	Total
MCP Band 10	55,508	8,326	7,000	70,834	56,618	8,493	7,000	72,111	57,751	8,663	7,000	73,413
MCP Band 9	64,732	9,710	7,000	81,442	66,027	9,904	7,000	82,931	67,347	10,102	7,000	84,450
MCP Band 8	73,153	10,973	7,000	91,126	74,616	11,192	7,000	92,808	76,108	11,416	7,000	94,524
MCP Band7-Manager	117,367	17,605	9,000	143,972	119,714	17,957	9,000	146,671	122,108	18,316	9,000	149,424
MCP Band6-Manager Reporting to Director	133,698	20,055	9,000	162,752	136,372	20,456	9,000	165,827	139,099	20,865	9,000	168,964
MCP Band5-Director	170,110	25,516	9,000	204,626	173,512	26,027	9,000	208,538	176,982	26,547	9,000	212,529

The following assumptions are built into the plan:

- escalation of 2% per year;
- 15% average short term incentive (“STI”);
- between \$7000 and \$9000 Powerflex allowance based on Band level; and
- no long-term incentive or employee stock option planned funds at the cost centre level.

Witness: Keith McDonell/Michael Vels/Glenn Scott

Hydro One Limited/ Hydro One Inc.
Submission to the Board of Directors



Date: February 1, 2016

Re: 2016 Base Pay and Pension Plan Contributions for Management and Non-Represented staff

I am requesting approval for a base pay fund of 2.5% of management and non-represented staff payroll for distribution in 2016. This is consistent with wage increases in the energy sector. I am also requesting approval to update the salary ranges for core operations staff to align with the 50th percentile of our revised peer groups. In addition, I am seeking approval for a 0.75% increase in the employee defined benefit pension plan contributions. This is aligned with our compensation philosophy of cost-sharing. The attached presentation provides further information and supporting details.

Yours sincerely,

A handwritten signature in cursive script, appearing to read "Judy McKellar".

Judy McKellar

Senior Vice President, People & Culture/ Health, Safety & Environment

2016 Base Pay and Pension Plan Contributions for Management and Non-Represented Staff

Resolution:

After consideration, upon motion duly made, seconded, and unanimously carried, be it RESOLVED:

THAT the Board of Directors approve the 2016 Base Pay and Pension Plan Contributions for Management and Non-Represented Staff.



2016 Base Pay and Pension Plan Contributions for Management and Non-Represented staff

February 1, 2016



Management Recommendations

2016 Base Pay Adjustments

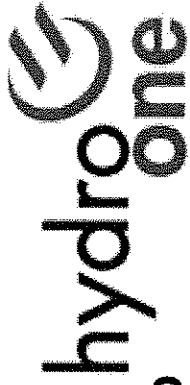
- Recommending a 2.5% (\$1.9M) base pay fund (in aggregate) to distribute to management and non-represented staff (excluding the President & CEO and Designated Employees) to align with the median of the forecasted 2-3% Canadian Industrial Average
- The funds will target those below the 50th percentile of the peer group segments, recognize growing capability in role, reward performance and retention of key employees
- The base pay adjustments will be effective April 1st, 2016

Core Operational Updated Salary Range

- Core Operational salary range is more than 10% below the 50th percentile of our peer group (Appendix I)
- Requesting that entire salary range be adjusted upwards by approximately 10%
- Movement through the salary range is not automatic and will occur only through base pay adjustments

Defined Benefit Pension Plan Contributions

- Recommending a 0.75% increase in employee Defined Benefit (DB) pension plan contributions effective May 1st, 2016
- Aligned with the company's compensation philosophy of cost sharing
- The 0.75% increase will partially offset the cost of the base pay increase by approximately 0.6% or \$0.5M. (The Net Cost is \$1.9M – 0.5M = \$1.4M)



Appendix I: Core Operations – Updated Salary Ranges & Peer Group

Updated Salary Ranges

	Current						Proposed						
	Base Salary			Range Spread	Base Salary			Range Spread	Base Salary			Market P50	
	Min	Mid	Max		Min	Mid	Max		Min	Mid	Max		
Band													
Director	Band 5	\$119	\$155	\$192	60%	\$127	\$165	\$203	60%	\$173			
Senior Manager	Band 6	\$94	\$122	\$151	60%	\$110	\$138	\$166	50%	\$145			
Manager	Band 7	\$74	\$101	\$128	70%	\$92	\$115	\$138	50%	\$119			

Core Operations Peer Group

		Company n=28									
		Core Utility Peers					Other Utility Peers				
1	ATCO Group	8	Alberta Electric System Operator	15	GDF SUEZ	22	Northland Power Inc.				
2	Capital Power Corporation	9	AltaLink	16	Horizon Utilities Corporation*	23	Nova Scotia Power Inc.				
3	Emera Inc*	10	BC Hydro Power & Authority	17	Hydro Ottawa Limited*	24	Ontario Power Generation				
4	Enbridge inc.	11	Bruce Power LP	18	Hydro-Quebec	25	Powersstream Inc.*				
5	Fortis Inc.*	12	Energource Hydro Mississauga Inc.*	19	Independent Electricity System Operator	26	SaskEnergy Incorporation*				
6	TransAlta Corporation	13	ENMAX Corporation	20	NB Power Holding Corporation*	27	SaskPower				
7	TransCanada Corporation	14	EPCOR Utilities Inc.	21	Newfoundland and Labrador Hydro Electric Corporation	28	Toronto Hydro Electric				

1 **Energy Probe INTERROGATORY #026**

2
3 **Reference:**

4 Exhibit C1, Tab 4, Schedule 1, Page 21

5
6 **Interrogatory:**

7 Preamble: MCP employees are eligible to participate in an ESOP. MCP employees can
8 contribute up to 6% of their base salary and Hydro One will provide a 50% match on
9 contributions to a maximum of 3% of base salary.

- 10
11 a) Clarify the terms under which Executives participate in the ESOP (as opposed to MCP as
12 described in Section 10.5).
13
14 b) Given the addition of the ESOP, what reductions in MCP and Executive Base Pay have been
15 made as an offset to balance the additional potential future compensation from ESOP?
16
17 c) Alternatively, explain why incremental Compensation above Base Compensation and
18 Incentive-Based pay (in the form of ESOP) is being provided and why ratepayers rather than
19 shareholders should pay this cost.

20
21 **Response:**

- 22 a) Executives are eligible to participate in the ESOP program on the same terms and conditions
23 as all other eligible MCP employees.
24
25 b) No specific reductions in MCP or Executive base pay have been implemented to offset any
26 additional ESOP compensation. However, Hydro One has introduced a lower cost Defined
27 Contribution Pension Plan for new externally hired MCP employees as of September 30,
28 2015.
29
30 c) Employee Share Ownership Plans (“ESOPs”) instil a sense of ownership for employees and
31 since the value of their shares fluctuates with the success of the company, employees are
32 incented to perform better. Equity based programs such as ESOP’s are a common market
33 practice to align the interests of employees with those of the shareholder and the ratepayer.
34 Since Hydro One is expecting better results from employees as a result, both the cost and the
35 associated benefits should be should be experienced by ratepayers.
36

1 The rate recovery of incentive-based compensation has been previously considered by the
2 OEB in regulatory decisions relating to Ontario’s natural gas distributors. As an example,
3 in a 2003 OEB Decision with Union Gas, the OEB ruled on the recoverability of incentive-
4 based compensation programs. The Board agreed “with Union’s use of incentive payments
5 as a legitimate element of the total compensation package offered to retain qualified
6 managers and staff in a competitive market for human resources”. The Board also
7 commented that “the use of incentive payments is a reasonable element of Union’s employee
8 compensation and benefits ratepayers over the longer term by allowing Union to compete for
9 higher quality human resources, leading to a more efficient operation of the utility”.
10 (Reference RPO-2003-0063/EB2003-0087/EB-2003-0097 Decision with Reasons dated
11 March 18, 2004 p.89).

1 **Energy Probe INTERROGATORY #027**

2
3 **Reference:**

4 Exhibit C1, Tab 4, Schedule 1, Pages 24/25

5
6 **Interrogatory:**

- 7 a) Please provide documentation that sets out the exact terms of the share grants.
- 8
- 9 b) If not included, please provide details of exercise rights and price relative to market.
- 10
- 11 c) Are Employees allowed to sell or trade their Options? Please clarify and provide supporting
- 12 rationale(s).
- 13

14 **Response**

- 15 a) Refer to response to Exhibit I, Tab 12, Schedule 20, part a), Attachment #1 for the PWU and
- 16 Society Share Grant Plans from the 2016 Hydro One Management Information Circular.
- 17
- 18 b) Refer to part a).
- 19
- 20 c) There are no Share Options available currently as part of the equity based compensation
- 21 program. PWU and Society employees who are eligible to participate in the Share Grant Plan
- 22 must hold their shares for a period of two years in order to receive taxable benefits and shares
- 23 cannot be sold during black out conditions.

1 **Energy Probe INTERROGATORY #028**

2
3 **Reference:**

4 Exhibit C1, Tab 4, Schedule 1, Page 26, Figure 7

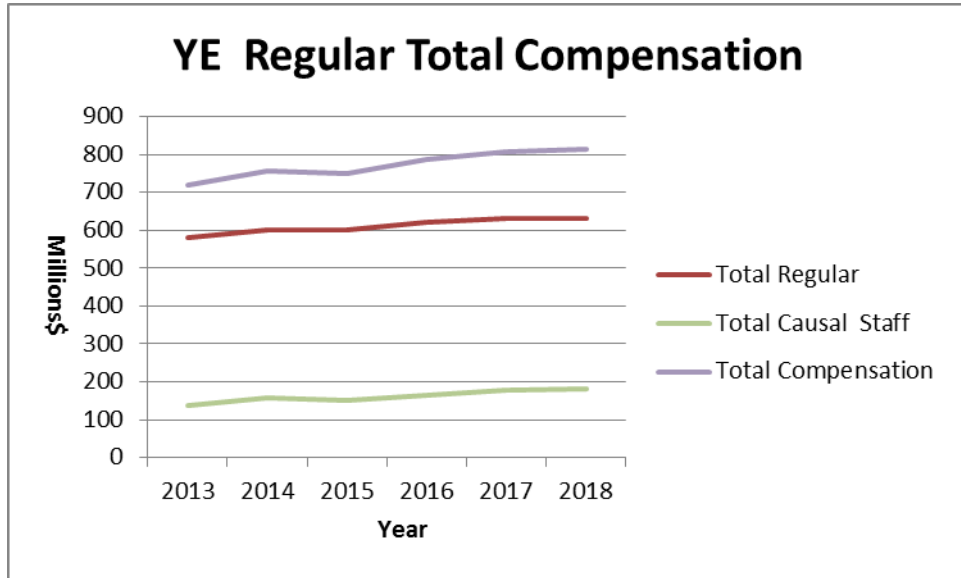
5
6 **Interrogatory:**

- 7 a) Confirm Figure 7 is compensation for the Total Hydro One Dx and Tx.
- 8
- 9 b) Clarify/list what elements of Total compensation are included in Figure 7. Specifically, are
10 average Incentive Pay, ESOP and Share Grants included?
- 11
- 12 c) If not, please correct Figure 7 to include all elements of Total Compensation and provide the
13 necessary assumptions and caveats.
- 14
- 15 d) Please provide the revised chart that shows only Regular staff costs and total cost from \$500
16 million to 900 million (and add note that casual staff makes the difference).

17
18 **Response:**

- 19 a) Compensation in Figure 7 is year-end compensation for both the Distribution and
20 Transmission businesses.
- 21
- 22 b) Compensation elements in Figure 7 include Base pay, overtime, Short Term Incentive and
23 other allowances.

1 c)



2
 3
 4

d)

Representation	2013	2014	2015	2016	2017	2018
PWU Reg	360,796,279	370,778,651	368,449,119	384,766,692	388,118,070	387,145,503
SOCIETY Reg	137,310,153	148,807,143	148,539,224	145,544,065	145,551,630	142,615,374
MCP Reg	82,939,240	81,578,789	84,289,003	92,403,449	97,211,160	101,517,699
Total Regular	581,045,672	601,164,583	601,277,346	622,714,206	630,880,860	631,278,575
Total Compensation	719,976,414	757,299,121	751,352,945	787,652,865	807,633,194	813,743,318

5
 6
 7

Note: the difference between total compensation \$ and total regular compensation \$ is the compensation for temporary and casual employees.

Energy Probe INTERROGATORY #029

Reference:

Exhibit C1, Tab 4, Schedule 1, Attachment 1, Pages 1 -6

Interrogatory:

- a) Please provide a copy of the Payroll Tables that includes Executive Compensation with revised Totals.
- b) For 2017 and 2018 as applicable, include columns that show additional compensation costs, such as ESOP and Share Grants.

Response:

a)

MCP - Executive (MCP Bands 1-4)						
Year	TOTAL NO. EMPLOYEES	TOTAL WAGES	Base Pay	Short Term Incentive	Long Term Incentive	Other Allowances
2013	16	6,585,916	4,642,504	1,640,750	-	302,662
2014	18	6,313,609	4,641,630	1,255,204	-	416,775
2015	19	7,709,128	5,261,183	1,725,000	-	722,945
2016	24	10,958,387	5,891,365	2,801,617	2,079,903	185,502
2017	24	16,200,873	6,941,417	3,921,159	5,149,085	189,212
2018	24	19,553,320	7,080,245	4,038,793	8,241,284	192,997

- b) Share Grants are only applicable to eligible PWU and Society employee. Forecasted cost for share grants are:

Share Grant Cost		
	2017	2018
PWU	1,601,153	1,585,853
Society	NA	560,225
Total	1,601,153	2,146,078

Currently, only MCP employees are eligible for ESOP. ESOP is a voluntary program that allows MCP employees to purchase Hydro One Limited stock through payroll deductions. Hydro One will match the employee contribution 50% up to a maximum set amount. The forecasted cost of this program is \$1.8M per year.

Witness: Keith McDonell

1 **Energy Probe INTERROGATORY #030**

2
3 **Reference:**

4 Exhibit C1, Tab 4, Schedule 1, Page 26/27

5
6 **Interrogatory:**

7 Preamble: As directed by the OEB, Hydro One will perform an updated compensation study for
8 submission with the next Distribution Rate Application, expected to be filed in the first quarter of
9 2017.

- 10
11 a) Please provide a copy of the OEB Direction.
- 12
13 b) Please explain why Hydro One has not updated the 2013 Mercer Study for this application
14 given that 3 years have elapsed.
- 15
16 c) Please indicate the Status of the new Mercer Compensation study and the schedule for
17 completion.
- 18
19 d) Please explain why an update to the study is not essential, given the material changes to total
20 compensation following the privatization of Hydro One. (examples - Defined Contribution
21 Pension Plan, ESOP and Share Grants).
- 22
23 e) Please explain why 3 year old data from the former Crown Corporation is adequate to assess
24 Hydro One's Total Compensation (Dx and Tx) for the period 2016-2018?

25
26 **Response:**

- 27 a) Please see attached Ontario Energy Board Decision EB-2013-0416/EB-2014-0247 at page
28 61.
- 29
30 b) Please see Exhibit I, Tab 1, Schedule 130.
- 31
32 c) The Total Compensation Study was awarded to Mercer's in August 2016. An interim report
33 is due November 3, 2016. The final report is due December 12, 2016.
- 34
35 d) Towers Watson provided a benchmarking study for MCP executive and non-executive
36 compensation. The Towers Watson benchmarking allowed Hydro One to further refine non-
37 executive compensation in relation to the labour market for similar roles by segmenting this

Filed: 2016-08-31

EB-2016-0160

Exhibit I

Tab 11

Schedule 30

Page 2 of 2

1 population into Core and Support Services segments. Benchmarking results show Hydro
2 One's position to market is aligned at or slightly above market (P50) with above market
3 variance more attributable to the Support Services segment.

4

5 e) Refer to the response for Exhibit I, Tab 9, Schedule 15.

1 **Energy Probe INTERROGATORY #031**

2
3 **Reference:**

4 Exhibit C1, Tab 4, Schedule 1, Page 34

5
6 **Interrogatory:**

- 7 a) As shown in Figure 3, MCP Pension costs have not moved towards the Cost Ratio target as
8 quickly as other employee groups. Please explain why this is the case, since HO Directly
9 controls pay and benefits for these ~590 employees.
- 10
- 11 b) What is the additional annual cost relative to a 50: 50 sharing?
- 12

13 **Response:**

- 14 a) While Hydro One does have greater control over pay and benefits for non-represented staff, a
15 balance must be struck in terms of reducing compensation costs and being able to attract,
16 retain and motivate the MCP employee group. Hydro One has taken other steps to reduce
17 pension and non-pension costs – for example, the introduction of a new defined benefit
18 pension plan in 2004 and more recently, closing the defined benefit pension plan for new
19 entrants and replacing it with a defined contribution plan. Post-2004 MCP employees are also
20 on a less costly benefits program.
- 21
- 22 b) The incremental annual cost of the MCP pension plan relative to a 50:50 sharing is
23 approximately \$3M.

1 **Energy Probe INTERROGATORY #032**

2
3 **Reference:**

4 Exhibit C1, Tab 6, Schedule 1, Pages ¾, Tables 1 and 2 and Exhibit C1, Tab 6, Schedule 1,
5 Table 4

6
7 **Interrogatory:**

8 Preamble: The Black and Veatch Report BP2017-18 Table 4, shows Common costs of \$325
9 million. Tables 1 and 2 show ~\$204 million.

10
11 Please indicate the differences and Map these to provide reconciliation between the Exhibits.

12
13 **Response:**

14 The Black & Veatch report covers the various Common Corporate Cost groups within Hydro
15 One whose costs are allocated through the Common Corporate Cost Allocation methodology.
16 These groups account for approximately \$325 million of the costs.

17
18 Exhibit C1, Tab 6, Schedule 1, Tables 1 and 2 show the Common Corporate Functions and
19 Services portion of the costs allocated through the Common Corporate Cost Allocation
20 methodology.

21
22 Included in the CCF&S costs detailed here are Facilities and Real Estate work program costs as
23 detailed in Exhibit C1-3-3. Subtracted from the \$325 million are Planning, as detailed in Exhibit
24 C1-3-4, IT Management and Project Control as detailed in Exhibit C1, Tab 3, Schedule 5,
25 Customer Services as detailed in Exhibit C1, Tab 2, Schedule 5 and Network Operations as
26 detailed in Exhibit C1, Tab 2, Schedule 4.

27
28 These common corporate costs are presented in the evidence that describes the work program for
29 which they support.

Energy Probe INTERROGATORY #033

Reference:

Exhibit C1, Tab 7, Schedule 1, Page 1, Table 1

Interrogatory:

Preamble: In accordance with the Board's Decision (EB-2012-0031), Hydro One Transmission used the Foster methodology, updated to reflect the results from the new Depreciation Study completed in 2016 for determining the depreciation rates proposed to be used in the calculation of depreciation expenses for 2017 and 2018.

- a) Please explain, provide more detail on the doubling of asset removal costs in the Test years.
- b) Specifically, provide a breakout of the costs for each major class of assets.
- c) Please provide a projection of asset removal costs by class over the period 2017-2021 and provide a discussion on the need/drivers

Response:

- a) Please refer to Exhibit I, Tab 4, Schedule 14 (LPMA #14).
- b) The table below provides the breakout for the Asset Removal Costs for 2017 and 2018 Test years by major asset classes:

	2017	2018
Station	(22.94)	(29.28)
Lines	(29.82)	(39.69)
Development	(0.62)	(0.24)
Total	(53.38)	(69.21)

- c) For a discussion on the need/drivers please refer to Exhibit I, Tab 4, Schedule 14 (LPMA #14). The asset removal costs for the test years 2017 and 2018 have been provided in the application (Exhibit C1, Tab 7, Schedule 1).

Energy Probe INTERROGATORY #034

Reference:

Exhibit D1, Tab 1, Schedule 1, page 5

Interrogatory:

Can Hydro One provide a table showing Board Approved and Actual rate base going back to 2011?

Response:

Please see the table below for approved rate base:

Particulars	Approved			
	2012	2013	2014	2015
<u>Electric Utility Plant</u>				
Gross plant at cost	13,379.3	14,308.2	15,173.8	15,117.7
Less: accumulated depreciation	(4,690.6)	(4,980.2)	(5,264.1)	(5,490.9)
Net plant in service	8,688.7	9,328.0	9,909.7	9,626.8
Construction work in progress	0.0	0.0	0.0	0.0
Net utility plant	8,688.7	9,328.0	9,909.7	9,626.8
<u>Working Capital</u>				
Cash working capital	15.8	11.7	11.1	10.7
Materials and Supplies Inventory	21.7	13.7	12.9	13.7
Total working capital	37.6	25.4	24.0	24.5
Total rate base	8,726.3	9,353.4	9,933.8	9,651.2

1 Please see the table below for actual rate base:
2

<u>Particulars</u>	2012	2013	2014	2015
<u>Electric Utility Plant</u>				
Gross plant at cost	13,260.0	14,148.8	14,635.2	15,102.1
Less: accumulated depreciation	(4,700.8)	(4,964.3)	(5,224.9)	(5,508.0)
Net plant in service	8,559.3	9,184.6	9,410.3	9,594.2
Construction work in progress	0.0	0.0	0.0	0.0
Net utility plant	8,559.3	9,184.6	9,410.3	9,594.2
<u>Working Capital</u>				
Cash working capital	5.0	11.7	11.1	10.7
Materials and Supplies Inventory	13.0	13.0	13.0	12.2
Total working capital	18.0	24.7	24.1	22.9
Total rate base	8,577.3	9,209.3	9,434.4	9,617.1

3

Energy Probe INTERROGATORY #035

Reference:

Exhibit D1, Tab 1, Schedule 1 and Table 1, ISAs

Interrogatory:

- a) Please provide in tabular form, the variation in ISAs (Forecast and Actual) for the historic period 2011-2015.
- b) Given the historic major variations in ISAs, please provide a Table showing the impacts expressed as percentage of plan and \$ amount plus the impact on the Rate Base and annual revenue requirements.
- c) Please provide the current status for 2016, expressed in % variation \$ and associated impact on Rate Base and Revenue Requirement
- d) Please discuss why post facto explanations for material differences in ISAs are appropriate and useful in the regulatory process?
- e) Please provide the impact of a +10% and +20% variation in ISAs on the 2017 and 2018 forecast Rate Base and Revenue Requirements.
- f) Based on the previous responses, please discuss why Rates should include the revenue requirements for costs of assets that materially differ from approved Capital plan.
- g) Please discuss how variations in ISAs can/should be addressed in reference to the objectives of the RRFE for Transmitters and in particular, under any Incentive Regulation Plan.

Response:

- a) Please see table below:

\$ Millions	Actuals	OEB Approved	Variance
2012	\$1199.4	\$1591.9	(\$392.5)
2013	\$703.8	\$784.2	(\$80.4)
2014	\$914.5	\$863.3	\$51.2
2015	\$699.1	\$821.3	(\$122.2)

b) Please see table below:

	% of Variance to OEB Approved	Estimated in-year Rate Base Impact	Estimated in-year Revenue Requirement Impact
2012	(25%)	(\$196)	(\$20)
2013	(10%)	(\$40)	(\$4)
2014	6%	\$26	\$3
2015	(15%)	(\$61)	(\$6)

Rate base and revenue requirement impacts shown are not cumulative.

c) Please see Exhibit D1, Tab 1, Schedule 2, page 1, Table 1 for forecasted 2016 bridge year in-service additions. Please refer to Hydro One's response to SEC interrogatory 64 in Exhibit I, Tab 6, Schedule 64, for a forecasted balance of the in-service variance account at the end of 2016.

For 2016 specifically, the forecast in-service additions are \$238 million higher than OEB approved. The table below illustrates the estimated impact on rate base and revenue requirement.

	% of Variance to OEB Approved	Estimated in-year Rate Base Impact	Estimated in-year Revenue Requirement Impact
2016 Bridge	35%	\$119	\$12

d) In-service capital additions, rather than capital expenditures, have a direct impact on rate base, thus on revenue requirement. Hydro One has provided post facto explanations for material differences in ISAs in its prefiled evidence filed on May 31, 2016. Please see Exhibit D1, Tab 1, Schedule 2, for the variance explanation on the actual 2014 to 2016 in-service capital additions, compared to the OEB approved amounts.

e) Please see the table below:

	% of Variance to OEB Approved	Estimated in-year Rate Base Impact	Estimated in-year Revenue Requirement Impact
2017	10%	\$47	\$5
2017	20%	\$93	\$9
2018	10%	\$60	\$6
2018	20%	\$121	\$12

- 1 f) Please see Hydro One's response to OEB Staff interrogatory 101 in Exhibit I, Tab 1,
2 Schedule 1.
3
4 g) Hydro One cannot speculate on how the OEB will address the ISA variance in an Incentive
5 Regulation Plan in Hydro One's next 5 year application for 2019 to 2023. In this Cost of
6 Service application for 2017 and 2018, Hydro One has proposed to continue the use of the in-
7 service variance account to track any variances in ISA between Board approved and actual.

1 **Energy Probe INTERROGATORY #036**

2
3 **Reference:**

4 Exhibit D1 Tab 1 Schedule 3 Table 1

5
6 **Interrogatory:**

- 7 a) Have 2015 True-ups for 2015 been completed? What is the Impact on the Revenue
8 requirement for the Test Years?
9
10 b) Is the forecast of true-ups for 2016 on track and what will be the impact on the 2017/18
11 Revenue Requirements?
12
13 c) What adjustments have been made to the Load Forecast for the Test Years? Please provide
14 details.
15

16 **Response:**

- 17 a) Yes, the 2015 True-ups for 2015 have all been completed. The impact on the rate base and
18 revenue requirement has already been incorporated in the Exhibit D2, Tab 2, Schedule 1.
19
20 b) Yes, the forecast for true ups in 2016 is on track. The impact on rate base for, and resulting
21 revenue requirement, is shown in column (e) of Exhibit D2, Tab 2, Schedule 1. Column (h)
22 of Exhibit D2, Tab 2, Schedule 1 shows the adjustment required to offset the half year rule
23 when calculating the average rate base, as Hydro One reduces the rate base by 100% in the
24 year the payment is due.
25
26 c) The total load forecast for Test Years already incorporates the reduced load forecasts of
27 Hydro One customers subject to CCRA true ups. Hydro One regularly solicits and receives
28 updated total load forecasts from our major customers, which include customers connected to
29 facilities governed by CCRA. These updated forecasts governed by CCRA's are already
30 reflected in the Summary of Rate Pool Charge Determinants in Exhibit H 1, Tab 2, Schedule
31 1.

Energy Probe INTERROGATORY #037

Reference:

Exhibit D1, Tab 4, Schedule 1 and EB-2016-0050 Exhibit I, Tab 2, Schedule 41, EP IRR #4b

Interrogatory:

Preamble: Hydro One Transmission's evidence reflects a return of 9.19% for the test years 2017 and 2018, based on the Cost of Capital Parameters released by the OEB on October 15, 2015, for rates effective January 1, 2016. Specifically, for 2017, the Board would determine the ROE: 1 - for Hydro One Transmission, 2 - based on the September 2016 Consensus Forecasts and Bank of Canada data which, 3 - would be available in October 2016.

- a) Please Provide the Historic ROE for Hydro One and the ROE for the Transmission Business.
- b) In your response, please review the IRR provided in the second Reference and clarify if the values relate to Hydro One or specifically to the Transmission Business:

	2010	2011	2012	2013	2014	2015
Hydro One Revenue Requirement (\$M)	1,217.7	1,299.5	1,385.1	1,390.8	1,446.4	1,477.3
Hydro One Realized Return on Equity (%)	10.49	10.95	12.41	13.22	13.12	10.93

- c) Based on the responses above, please provide a Table and a chart that shows for the Transmission Business, the Revenue Requirement and allowed and actual ROE for each of the historic years.
- d) Please discuss the reasons for any material over-earning.

Response:

- a) Please refer to Hydro One's response to BOMA interrogatory, I-02-030, for historic ROE for Transmission. The Hydro One consolidated ROE is calculated on a GAAP basis, includes many non-regulatory items and therefore cannot be compared to the Transmission ROE.

- 1 Please see below for the Hydro One consolidated ROE:
- 2 • 2012 – 11.5%
 - 3 • 2013 – 11.5%
 - 4 • 2014 – 10.0%
 - 5 • 2015 – 8.2%
- 6
- 7 b) The results relate specifically to the Transmission business.
- 8
- 9 c) Please refer to BOMA I-02-030 for the allowed ROE for Transmission. The Transmission
10 revenue requirement is as shown in the table in part b of this interrogatory.
- 11
- 12 d) Please refer to BOMA I-02-030 for the explanation requested.

1 **Energy Probe INTERROGATORY #038**

2
3 **Reference:**

4 Exhibit D2, Tab 4, Schedule 1, Page 1; Exhibit D2, Tab 4, Schedule 2

5
6 **Interrogatory:**

- 7 a) In the first reference, please provide the Average Rate Base corresponding to the Equity
8 amount (Line 4).
9
10 b) Please confirm Calculated Equity (Line 4) is Board Approved Amount. If not, explain the
11 difference(s).
12
13 c) Please explain why equity amount decreased over the period 2013-2016.
14
15 d) Please provide the calculation and explain why Equity (Line 5) increases 2016-2017.
16

17 **Response:**

- 18 a) The table referenced represents assets in excess of liabilities, less preferred shares (2013-
19 2015), as per the audited financial statements. There is no corresponding rate base. To view
20 OEB approved rate base, please refer to Energy Probe 34.
21
22 b) Line 4 is not Board approved. These amounts are from the audited financial statements (US
23 GAAP).
24
25 c) The decrease in equity from 2013 to 2014 was as a result of the sale of Bruce to Milton
26 assets.
27

28 The decrease in equity from 2014 to 2015 was as a result of the dividends payment
29 associated with IPO, which was paid to reset the capital structure to the deemed regulatory
30 structure at the Transmission and Distribution level.
31

- 32 d) The only change from 2016 to 2017 is rate base. This is due to the growth in rate base
33 through the in-servicing of assets, while the other two factors used in determining the equity
34 amount are held constant (ie. Return on equity of 9.19% and deemed capital structure of
35 40%).

Energy Probe INTERROGATORY #039

Reference:

Exhibit H1, Tab 4, Schedule 1

Interrogatory:

Preamble: Hydro One Transmission proposes to maintain the currently settled value of \$1.85/MWh for ETS through the 2017 and 2018 period. For 2017 and 2018, the ETS revenue will continue to be disbursed through a decrease in the revenue requirement for the Network rate pool, as per the cost allocation process approved by the Board.

- a) Please provide details of the methodology and results of the forecast Export Volumes and ETS revenue of \$39.2 million and \$40.1 million per year for 2017 and 2018, respectively.
- b) Please provide the Forecast ETS Volumes and Revenue for the Period 2011-2015 and note the approved Rate for each year.
- c) For 2016, provide the forecast and Estimate based on YTD data.

Response:

- a) The forecast ETS revenue, of \$39.2 million and \$40.1 million for the years 2017 and 2018 respectively, was calculated using the forecast export volume multiplied by the proposed ETS rate.

	2017	2018
Forecast Export Volume (TWh)	21.18	21.65
Proposed ETS Rate (\$/MWh)	1.85	1.85
Forecast Export Revenue (\$M)	39.17	40.05

The forecast export volume is calculated based on a 3 year rolling average of the historical export volumes; where the historical export volumes are derived from the actual amounts received by Hydro One from the IESO for Transmission Export Service Credits (i.e. Export Revenue) divided by the effective ETS Tariff Rate.

	2013	2014	2015
Actual Export Revenue (\$M)	37.96	39.52	42.81
Approved ETS Tariff (\$/MWh)	2.00	2.00	1.85
Historical Export Volume (TWh)	18.98	19.76	23.14

Witness: Henry Andre

1 b) The approved forecast ETS volumes and revenue for the period 2011 to 2015 are provided in
2 the table below.

3

	2011	2012	2013	2014	2015
Approved Export Revenue (\$M)	33.7	28.7	31.6	36.6	31.8
Approved ETS Tariff (\$/MWh)	2.00	2.00	2.00	2.00	1.85
Approved Export Volumes (TWh)	16.85	14.35	15.80	18.30	17.19
<i>Proceeding Number</i>	<i>EB-2010-0002</i>	<i>EB-2010-0002</i>	<i>EB-2012-0031</i>	<i>EB-2012-0031</i>	<i>EB-2014-0140</i>

4
5 c) The approved forecast ETS volumes and revenue for 2016 and the updated estimates using
6 July 2016 YTD data are provided in the table below.

7

	2016 Approved	2016 Estimate
Export Revenue (\$M)	31.7	37.0
Approved ETS Tariff (\$/MWh)	1.85	1.85
Export Volumes (TWh)	17.1	20.0

8