EB-2016-0160

ONTARIO ENERGY BOARD

IN THE MATTER OF the *Ontario Energy Board Act 1998*, Schedule B to the *Energy Competition Act*, 1998, S.O. 1998, c.15;

AND IN THE MATTER OF an Application by Hydro One Networks Inc. for an Order or Orders approving or fixing just and reasonable rates and other service charges for the transmission of electricity as of January 1, 2017 and January 1, 2018.

CROSS-EXAMINATION COMPENDIUM OF THE SCHOOL ENERGY COALITION
(Panel 1 – Strategy)

November 24, 2016

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UNDERTAKING – TCJ1.1

Undertaking

Provide a revised version of the revenue requirement table provided at Exhibit A, Tab 3, Schedule 1, Page 8.

Response

Revenue Requirement ($ Millions)

Comparison of Rates Revenue Requirement	**Board - approved 2016**	**2017**	**2018**
OM&A	436.7	412.7	409.3
Depreciation	397.3	435.7	470.7
Income Taxes	72.2	88.1	96.2
Cost of Capital	661.5	676.1	714.9
Total Revenue Requirement	**1,567.6**	**1,612.6**	**1,691.1**
Deduct External Revenues	(32.2)	(28.2)	(28.5)
Revenue Requirement less External Revenues	**1,535.4**	**1,584.4**	**1,662.6**
Deduct Export Revenue Credit	(31.7)	(39.2)	(40.1)
Deduct Regulatory Accounts Disposition	(36.1)	(47.8)	(47.8)
Add Low Voltage Switch Gear	13.0	14.0	14.7
Rates Revenue Requirement	**1,480.7**	**1,511.4**	**1,589.4**
Rate Increase Required, excl. Load		**2.1%**	**5.2%**
Estimated Load Impact		2.1%	0.0%
Rate Increase Required		**4.2%**	**5.2%**

Note 1: OM&A updates reflect revised OM&A pension costs, as outlined below:

- Correction to OM&A pension update: reduction to OM&A of $0.4M and $1.9M in 2017 and 2018, respectively

Note 2: Income tax updates reflect schedule 1 adjustments for capitalized pension reductions and associated CCA impacts

Witness: Joel Jodoin

The estimated increase of the total bill for Hydro One general service energy (2000 kWh/month) customers is 0.1% in 2017 and 0.2% in 2018. For Hydro One medium density residential (750 kWh/month) customers, the estimated increase is 0.2% in 2017 and 0.3% in 2018. The estimated bill impact for transmission connected-customers is 0.3% in 2017 and 0.4% in 2018, assuming that transmission represents 8.3% of the average transmission-connected customer's total bill.

The applied-for rate increase is likely to be mitigated by anticipated reductions in transmission pension contribution operating expenses, arising from the receipt of an updated actuarial valuation report that was not finalized at the time this Application was filed. The report is expected to be finalized at the end of June 2016. These circumstances are described further in Section 7 of this Exhibit.

2. OVERVIEW OF HYDRO ONE'S INVESTMENT PLAN

2.1 Strategic Goals, Values and Objectives

Hydro One aspires to be a best-in-class, customer-centric, commercial utility. Consistent with its past performance and its new status as a commercial entity, Hydro One remains committed to delivering safe, reliable power, and supporting the sustainable development of the Ontario economy. The company's core values remain unchanged:

- Maintaining a safe workplace;
- Caring for customers;
- Operating as one company;
- Being people-powered; and
- Executing with excellence.

Hydro One's new executive leadership and Board of Directors are committed to building a stronger performance management culture and are focused on achieving excellence in execution in all aspects of the company's work. The ability to measure and track performance is essential to this vision, as set out in Exhibit B2, Tab 1, Schedule 1 of this Application and Section 6 of this Exhibit. Hydro One's commitment to productivity and cost efficiency is further illustrated in Section 7 of this Exhibit, as OM&A expenses are expected to demonstrate a declining trend in the 2016 bridge year and in the 2017 and 2018 test years.

In order to achieve its corporate goals, Hydro One is also in the process of devising new approaches relating to serving its customers, forming its investment plans, and operating and maintaining its assets, while maintaining a strong commitment to safety and the environment.

The principles of the Board's *Renewed Regulatory Framework for Electricity Distributors* ("RRFE") are consistent and directly aligned with Hydro One's aspirations. Key areas of focus for Hydro One include ensuring that transmission services, capital program execution, and customer operations are more efficient and effective, enhancing the internal performance management culture, and strengthening relationships with key stakeholders. The Transmission System Plan, summarized in Section 4 of this Exhibit, reflects the alignment between Hydro One's values and business objectives with the RRFE, as set out in Exhibit B1, Tab 1, Schedule 2 and in Table 1 below.

Table 1: Hydro One's Values and Business Objectives

Customer Focus	**Customer Satisfaction**	• Improve current levels of customer satisfaction
	Customer Focus	• Engage with our customers consistently and proactively • Ensure our investment plan reflects our customers' needs and desired outcomes
Operational Effectiveness	**Cost Control**	• Actively control and lower costs through OM&A and capital efficiencies
	Safety	• Drive towards achieving an injury-free workplace
	Employee Engagement	• Achieve and maintain employee engagement
	System Reliability	• Maintain top quartile reliability relative to transmission peers
Public Policy Responsiveness	**Public Policy Responsiveness**	• Ensure compliance with all codes, standards, and regulations • Partner in the economic success of Ontario
	Environment	• Sustainably manage our environmental footprint
Financial Performance	**Financial Performance**	• Achieve the ROE allowed by the OEB

Hydro One submits that the forecasted expenditures and associated timing described in this Application are necessary if these objectives are to be achieved.

2.2 Customer Engagement and Needs Assessment

Hydro One's goal is to engage with customers consistently and proactively to better understand the customer and enhance the company's ability to provide services that meet their needs and improve customers' overall satisfaction with the service they receive. One critical element of achieving this goal is the development of an investment plan that is outcome-focused and designed to meet customers' needs and preferences.

In preparing this Application, Hydro One has engaged in an intense and focused level of customer engagement, which is detailed in Exhibit B1, Tab 2, Schedule 2. The company

found the feedback from these sessions to be critical in understanding customer preferences and being better able to identify customer needs. Customers indicated that the consultations were valuable to them in understanding Hydro One's operations and investment process.

Hydro One expects to continue to engage customers in the future, not only to receive input to consider in the development of future investment plans, but also to receive feedback and communicate key information about the system and investments that have or are likely to impact transmission system reliability risk and actual system performance.

Based on Hydro One's customer engagement process, the company believes that any deterioration in current service levels is unacceptable to customers and that the maintenance of current reliability levels is a customer priority.

2.3 Asset Needs Assessment

Based on Hydro One's assessment of its transmission system, a significant portion of its assets have deteriorated to the point where they pose a risk to its business objectives of maintaining current levels of reliability and improving customer satisfaction. Detailed information on Hydro One's asset needs is provided in Exhibit B1, Tab 2, Schedules 4 to 6.

Hydro One continues to strike a careful balance between: (a) developing the transmission system and building new infrastructure; (b) sustaining existing assets and maintaining the health of the system; and (c) rate impacts on customers. Between 2009 and 2012, Hydro One invested heavily in system development, in order to comply with government policies related to the connection and integration of renewable energy generation and the retirement of coal-fired generation. Since then, system development needs have declined

while system renewal needs have increased to the point of creating risk to current reliability levels.

As described in Exhibit B1, Tab 2, Schedule 4, Hydro One has modified its asset management approach to include reliability risk as a leading indicator of future transmission system performance. Hydro One's approach has been informed by the development of this approach in other jurisdictions. This approach is new for Hydro One, and the company intends to develop the reliability risk approach and refine its application.

Reliability risk is a metric that is derived using a probabilistic calculation based on asset demographics and the historical relationship between asset age and the occurrence of failure or replacement. Reliability risk is used by Hydro One in its asset management process to gauge the impact of its investments on future transmission system reliability. It also provides a directional indicator to inform the appropriate level and pacing of sustainment investments. The reliability risk model is not used to identify specific asset needs and investments. Instead, these are determined by condition assessments and other asset-specific information, as described in Exhibit B1, Tab 2, Schedule 5.

Table 2 below reflects the relative change in risk for each critical asset class and for the system as a whole, as a result of 2017 and 2018 investments. With the planned investments, overall reliability risk would improve (i.e. decline) by 2% by 2019. Without the applied-for investments that are reflected in the 2017 and 2018 test years, overall reliability risk would deteriorate by 10%.

Table 2: Relative Change in Reliability Risk

	Relative Change in Risk from Jan. 1, 2017 to Dec. 31, 2018, as per proposed investment	Relative Change in Risk from Jan. 1, 2017 to Dec. 31, 2018, without investment	% of Interruption Duration*
Lines	-2%	11%	69%
Transformers	-9%	14%	9%
Breakers	1%	17%	6%
Other[1]	-	-	16%
Total*	**-2%**	**10%**	

* Total is calculated by weighting the change in risk by the asset class' contribution to interruption duration.

In addition to incorporating customer feedback and new information on system reliability risk, Hydro One also considered and incorporated the results of a total cost benchmarking study into the development of its Transmission System Plan (Exhibit B1, Tabs 1 to 4 of this Application). The study found that Hydro One's historical capital spending levels were significantly below median in its peer group. For the purposes of developing its investment plan, Hydro One used the total cost benchmarking study as a reference tool to further validate the proposed increases in spending associated with its Transmission System Plan. Based on the results of the report and Hydro One's investment proposal, the 2017 and 2018 total expenses (capital expenditures and OM&A) will still remain at or below median levels relative to the company's peer group.

[1] Represents all other assets; risk is assumed to be flat over the investment planning horizon for these assets

confidence that targeted work is completed in an efficient manner, while delivering the promised outcomes for Hydro One's customers.

As further described in Exhibit B1, Tab 3, Schedule 1, Hydro One's capital expenditure forecast for 2017 is $1,076 million for 2017 and $1,122 million for 2018. Table 5 summarizes the capital investment plan.

Table 5: Summary of Transmission Capital Budget ($ Millions)

Including Capitalized Overheads and Interest Capitalized*	**Historic**				**Bridge Year**	**Test Years**		**Forecast**		
Description	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**
Sustaining	389.3	480.0	621.3	694.3	724.3	776.8	842.1	825.7	915.2	1118.1
Development	329.4	171.7	131.6	166.0	166.0	196.4	170.2	244.0	254.0	258.3
Operations	15.2	17.7	28.4	15.6	30.1	25.4	30.8	58.8	21.1	24.7
Common Corporate Costs Capital	42.1	49.1	63.4	67.1	83.5	77.6	79.1	79.1	78.2	73.8
Total	**776.0**	**718.5**	**844.6**	**943.0**	**1003.8**	**1076.1**	**1122.2**	**1207.5**	**1268.6**	**1474.9**

*Includes Allowed Funds Used During Construction.

A key area of focus for the Transmission System Plan is ensuring that transmission services and capital work execution are more efficient and effective. This is discussed in Exhibit B1, Tab 4, Schedule 1.

5. RATE BASE

Exhibit D1, Tab 1, Schedule 1 provides the details of the derivation of the requested rate base figures for the test years. Table 6 summarizes this request.

The test year expenditures are required to address the increasing maintenance requirements of a deteriorating, but expanding transmission system.

Table 10 compares 2016 projected costs to the 2016 OM&A expenditures approved by the Board in its Decision on Hydro One's previous transmission application in EB-2014-0140.

Table 10: 2016 Board-approved versus 2016 Projected OM&A Expenditures

OM&A Categories	2016 Board-approved ($ Millions)	2016 Projected ($ Millions)	Variance ($ Millions)*
Sustaining	241.1	227.5	-13.6
Development	13.4	5.3	-8.1
Operations	59.1	60.0	0.9
Customer Care	5.5	4.1	-1.4
Common Corporate & Other Costs	71.3	72.3	1.0
Taxes Other Than Income Taxes	67.0	62.9	-4.1
Less settlement reduction	-20.0		
Exclusion of B2M	-0.7		
Total OM&A	**436.7**	**432.1**	**-4.6**

*Total Variance is not the sum of changes noted.

Hydro One's projected 2016 OM&A costs are $4.6 million lower or 1.1% below Board-approved levels. The Board-approved amounts include the $20.0 million reduction negotiated in the EB-2014-0140 settlement agreement. Most areas were meaningfully below target including Sustaining, Development and Taxes Other Than Income Taxes.

Details of Hydro One's corporate staffing and compensation are provided at Exhibit C1, Tab 4, Schedule 1. As noted at Exhibit C1, Tab 4, Schedule 2, Hydro One has engaged Willis Towers Watson to prepare an actuarial valuation report relating to Hydro One's

School Energy Coalition (SEC) INTERROGATORY #003

Reference:

NA

Interrogatory:

Please provide the most recent Hydro One business and/or strategic plans.

Response:

Please see Exhibit I, Tab 13, Schedule 6.

Witness: Glenn Scott

Consumers Council of Canada (CCC) INTERROGATORY #006

Reference:

Ex. A/T8/p. 3

Interrogatory:

In the 2015 Annual Report the President and CEO refers to the fact that HON has undertaken a strategic planning process to define its future. Please provide the most recent HON Strategic Plan.

Response:

Hydro One's strategic planning process is not yet complete. As such, a new strategic plan is not yet in place.

Witness: Michael Vels

School Energy Coalition (SEC) INTERROGATORY #009

Reference:

A-5-1, p.4-5

Interrogatory:

Please provide a full Hydro One Networks Inc. organizational chart.

Response:

Hydro One does not have a current, full organizational chart. Hydro One cannot produce one with reasonable effort in the prescribed timeframe.

Witness: Michael Vels

TRANSMISSION SYSTEM PLAN: INTRODUCTION

1. INTRODUCTION

Hydro One's Transmission System Plan reflects Hydro One's commitment to meet customers' needs, manage health, safety and environmental risks, contain costs, fulfill its compliance obligations and be responsible stewards of its assets, and it demonstrates alignment with the principles set out in the Board's *Renewed Regulatory Framework for Electricity*.

Hydro One expects the plan to result in several key outcomes for Hydro One and its customers:

- maintaining top quartile reliability by mitigating risk arising from asset deterioration;
- minimizing the long-term costs of maintaining the reliability of the transmission system;
- ensuring that compliance with the regulatory and reliability standards is maintained:
- improving current levels of customer satisfaction;
- driving towards an injury-free workplace: and
- sustainably managing the environmental footprint of operations.

To achieve these outcomes, the Transmission System Plan reflects a shift in the balance of capital investment towards sustainment capital, with a focus on lines investments. In Hydro One's previous transmission revenue requirement application for the 2015-2016 period, it had put forth a sustainment capital program that began to address the need for higher sustainment investments by focusing on stations assets in poor condition that were a significant driver of reliability performance. Since then, Hydro One has focused on developing an improved understanding and knowledge of the condition of its transmission system.

Hydro One has gained additional knowledge through the ongoing testing of critical assets and expansion of the scope of condition assessments, combined with information collected about the actual performance (including failures) of individual assets. Hydro One has also been developing a greater understanding of how equipment unavailability due to condition and demographics are a leading indicator of future reliability issues, contributing to higher reliability risk. As a result of these efforts, Hydro One is continuing to prioritize replacement of assets with a goal of maintaining top quartile reliability and reducing reliability risk on the system.

As a result of its recent efforts to invest in the sustainment of stations assets, Hydro One has made significant progress in stabilizing the reliability risk from its stations assets. However, lines assets have continued to deteriorate and are now contributing to a larger proportion of the system's reliability risk. Hydro One expects to transition to placing a greater emphasis on lines-related sustainment investments (beginning in 2018) while maintaining a prudent level of stations investment in order to continue to mitigate risk.

In determining the timing and pacing of its investments, Hydro One considered both its own ability to execute capital work efficiently and the ability to secure planned outage time to minimize impacts on customers and other stakeholders in Ontario. Due to the planned refurbishment of large nuclear power plants in 2021 and beyond, Hydro One anticipates greater constraints to outage scheduling in the future. As a result, it has paced sustainment work so that critical work to reduce risk on the system could be completed in the next five years to ensure that transmission assets are in service before expected outage constraints make work more difficult to complete.

Hydro One is sensitive to the impacts of its Transmission System Plan on its customers, and thus has taken steps to ensure a prudent approach to investment and continued alignment with principles of RRFE by:

- Ensuring that the investment plan reflects customer needs and preferences identified in the customer engagement process, is consistent with the feedback obtained from the various other customer consultations undertaken by the company, and is aligned with the company's responsibility to provide effective stewardship of its transmission system assets;
- Identifying specific opportunities (e.g., steel tower coatings) where the company can extend the useful life of its assets and mitigate higher capital spending requirements for asset replacements in the future;
- Actively driving cost reduction and improved productivity to help offset the customer rate impacts of the proposed investment plan; and
- Implementing a more stringent performance management system – to provide greater transparency to the OEB, to customers, and to Hydro One's management and to provide confidence that targeted work is completed in an efficient manner, while delivering the promised outcomes for Hydro One's customers.

2. THE TRANSMISSION SYSTEM PLAN: FRAMEWORK

This Transmission System Plan is organized into four parts. Part One provides profile information of Hydro One Transmission, specifically, its regulatory environment, asset and customer base, core values and business objectives, and operations. Part One is set out in Exhibit B1, Tab 1.

Part Two describes the planning process that produced the investment plan for 2017 to 2018 which underpins this Application. It details the customer engagement activities, regional planning activities, and asset and risk assessments that Hydro One conducted to develop a well-prioritized investment plan. Part Two is set out in Exhibit B1, Tab 2.

Part Three explains the capital investments in the Transmission System Plan, describing the spending patterns over the historical, bridge and test years. Part Three is set out in Exhibit B1, Tab 3.

Part Four describes the capital work execution strategy that Hydro One intends to employ when implementing these investments. Part Four is set out in Exhibit B1, Tab 4.

SUMMARY OF CAPITAL EXPENDITURES

1. INTRODUCTION

This Exhibit provides an overview of the capital investments reflected in the investment plan. Investment summary documents describing capital projects or programs with cash flows in excess of $3.0 million in either 2017 or 2018 are filed at Exhibit B1, Tab 3, Schedule 11.

Table 1 provides a summary of Hydro One Transmission's capital expenditures for each investment category over the period 2012 to 2021.

Table 1: Summary of Transmission Capital Budget ($ Million)
Including Capitalized Overheads and Interest Capitalized*

Description	2012	2013	2014	Historic 2015	Bridge 2016	Test 2017	Test 2018	Forecast 2019	2020	2021
Sustaining	389.3	480.0	621.3	694.3	724.3	776.8	842.1	825.7	915.2	1118.1
Development	329.4	171.7	131.6	166.0	166.0	196.4	170.2	244.0	254.0	258.3
Operations	15.2	17.7	28.4	15.6	30.1	25.4	30.8	58.8	21.1	24.7
Common Corporate Costs Capital	42.1	49.1	63.4	67.1	83.5	77.6	79.1	79.1	78.2	73.8
Total	**776.0**	**718.5**	**844.6**	**943.0**	**1003.9**	**1076.1**	**1122.2**	**1207.5**	**1268.6**	**1474.9**

*Includes Allowed Funds Used During Construction.

The treatment of capital contributions and additions and deductions to construction work in progress are discussed in Exhibit B1, Tab 3, Schedule 3 and Exhibit D2, Tab 2, Schedule 3.

COMPARISON OF NET CAPITAL EXPENDITURES BY MAJOR CATEGORY– HISTORIC, BRIDGE AND TEST YEARS

Transmission Capital ($millions)	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Sustaining Capital							
Transmission Stations							
Circuit Breakers	11.2	23.4	25	7.1	2.4	1.1	0
Power Transformers	78.4	87	111.1	43.5	8.9	0	0
Other Power Equipment	28.3	26.5	27.5	12.5	4.5	0	0
Ancillary Systems	16.4	15.6	22	17.1	5.2	1.3	0
Station Environment	7.6	6.6	10.5	3.8	1.3	0	0
Integrated Station Investments	62.1	89	157.3	374.2	454.4	457.8	404.7
Tx Transformers Demand and Spares	0	0	0	27.2	20.5	25.3	25.8
Protection and Automation	95	84.4	97.9	60.2	45.6	45.2	59.1
Site Facilities and Infrastructure	23.4	22.9	30	20.3	9.4	6.7	6.7
Total Transmission Stations Capital	**322.5**	**355.3**	**481.3**	**565.8**	**552.2**	**537.5**	**496.2**
Transmission Lines							
Overhead Lines Refurbishment Projects, Component Replacement Programs and Secondary Land Use Projects	65.3	92	119.4	125	170.7	237	323.4
Underground Cables Refurbishment and Replacement	1.6	32.8	20.6	3.5	1.4	2.3	22.5
Total Transmission Lines Capital	**66.8**	**124.8**	**140**	**128.4**	**172.2**	**239.3**	**345.9**
Total Sustaining Capital	**389.3**	**480.0**	**621.3**	**694.3**	**724.3**	**776.8**	**842.1**

Development Capital	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Inter Area Network Transfer Capability	117.8	41.7	45.9	86.3	93.9	79.8	59.8
Local Area Supply Adequacy	86.4	54.0	49.1	64.9	48.2	43.8	45.7
Load Customer Connection	60.6	24.7	14.6	7.7	16.0	58.1	57.4
Generator Customer Connection	-0.2	-0.3	1.7	-1.7	-1.2	0.0	0.0
P&C Enablement for Distributed Generation	2.5	1.2	1.2	2.1	1.4	0.0	0.0
Risk Mitigation	17.7	27.5	17.0	3.1	2.1	12.6	5.2
Power Quality	0.0	0.0	0.0	0.0	2.1	2.1	2.1
TS Upgrades to Facilities Distribution Generation	33.1	13.9	-1.0	-1.2	0.0	0.0	0.0
Performance Enhancement	0.7	0.1	0.5	1.3	0.3	0.0	0.0
Smart Grid	10.7	8.8	2.5	3.5	3.1	0.0	0.0
Total Development Capital	**329.4**	**171.7**	**131.6**	**166.0**	**166.0**	**196.4**	**170.2**
Operations Capital							
Grid Operating and Control Facilities	3.4	11.3	23.3	14.2	18.7	11.4	19.3
Operating Infrastructure	11.9	6.4	5.1	1.4	11.4	14.0	11.5
Total Operations Capital	**15.2**	**17.7**	**28.4**	**15.6**	**30.1**	**25.4**	**30.8**

Capital Common Corporate Costs and Other Costs							
Transport and Work, and Service Equipment	14.6	18.8	22.0	22.1	26.1	24.1	25.0
Information Technology (including Cornerstone)	30.5	22.9	26.8	21.6	33.6	31.4	28.1
Facilities & Real Estate	11.6	7.4	13.7	22.7	22.6	18.4	20.9
Other (including CDM)	-14.7	0.0	0.9	0.7	1.2	3.7	5.1
Total Capital Common Corporate Costs and Other Costs	**42.1**	**49.1**	**63.4**	**67.1**	**83.5**	**77.6**	**79.1**
Total Transmission Capital	**776.0**	**718.5**	**844.6**	**943.0**	**1003.8**	**1076.1**	**1122.2**

Table 1
Five Year Goals Associated with Hydro One Networks Inc. Strategic Objectives

STRATEGIC OBJECTIVES	FIVE-YEAR VISION
Creating an injury-free workplace and maintaining public safety	Achieve world-class standing for medical attentions for utilities
Satisfying our customers	Achieve an on average of 90% customer satisfaction across all segments
Focusing on continuous innovation to ensure a modern, flexible and advanced distribution system	Meet 100% of advanced distribution system plan
Building and maintaining reliable, affordable transmission and distribution systems	Maintain the current levels of reliability relative to comparable utilities, while we improve customer service and satisfaction
Protecting and sustaining the environment for future generations	Reduce our environmental footprint
Championing people and culture	Achieve and maintain employee engagement at top quartile of comparable utilities
Maintaining a commercial culture that increases value for our shareholder	Achieve the Return on Equity allowed by the Ontario Energy Board and maintain an "A" credit rating
Achieving productivity improvements and cost-effectiveness	Achieve top-quartile unit costs against comparable utilities

TRANSMISSION OUTLOOK

As per Section 2.4.2.2 of the Board's Filing Requirements for Transmission Rates issued on January 2, 2014, Table 1 below provides a summary of Hydro One's Transmission capital expenditures over the past five historical years, which includes the bridge year, and for five future years including the test years.

Details of all the Sustaining, Development, Operations and Common Corporate Cost capital investments required in the test years are provided in Exhibit D1 and details of all large projects greater than $3 million are provided in Exhibit D2, Tab 2, Schedule 3. The summary of capital expenditures in Table 1 for the years 2017 to 2019 shows spending at the program level. Additional details of spending for this period beyond the test years is not available.

- Sustaining capital expenditures increase significantly in the 2013 to 2015 period to deal with the continued growth in the number of assets that are beyond their expected service life and require replacement to maintain system performance at acceptable levels. The level of spending in the 2016 to 2019 period varies based on program priorities such as the number of stations requiring reinvestment.
- Development expenditures are generally declining over the ten year period as large projects like Bruce to Milton and other projects to accommodate renewable generation have been completed. As explained in Exhibit D1, Tab 3, Schedule 3, Section 3.9 there are four large transmission projects that may require significant capital expenditures in the 2015 – 2019 period. The expenditures are not included in this proposed application as the spending in the test years is too uncertain to forecast and the project schedules are driven by external parties including the Board and the OPA.

- Operations spending increases in the 2014 to 2017 period mainly due to the NMS Sustainment project, the new Back Up Control Centre facility and upgrades to computer and network systems.
- Common Corporate Costs increase in 2014 due to higher IT spending for the completion of the Cornerstone project and Facilities and Real Estate costs, and then expenditures decline over the 2015 to 2019 period.

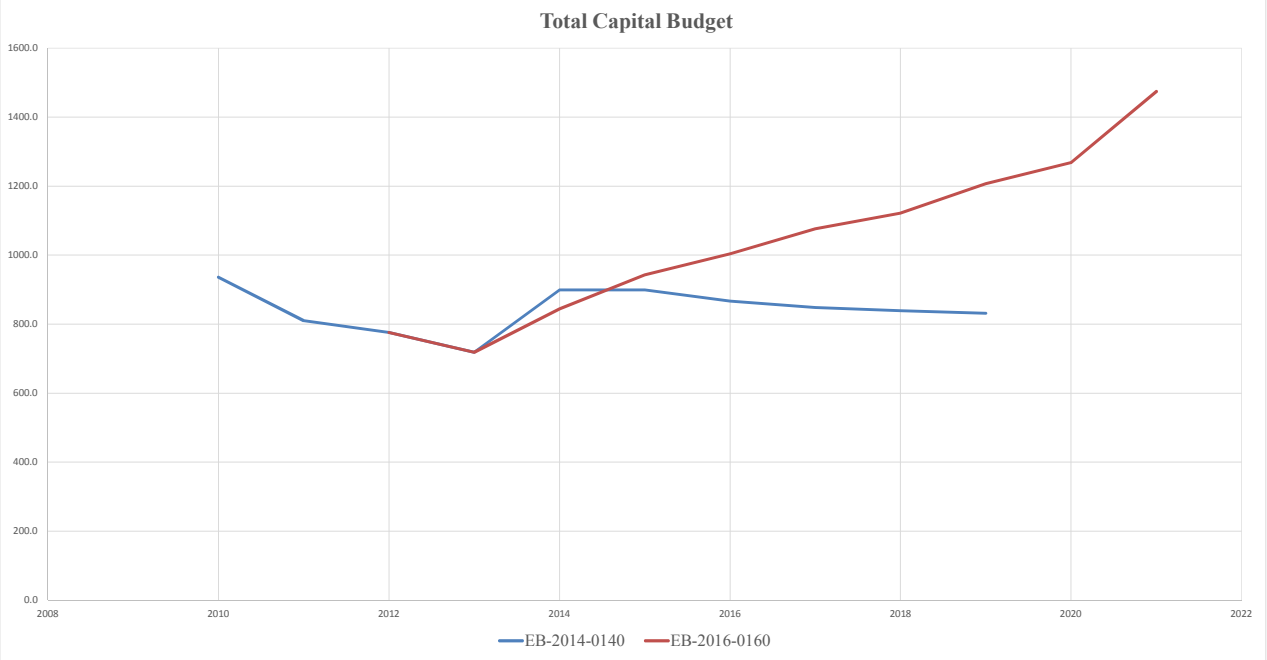
Overall Capital expenditures remain flat in 2015 and decline over the 2016 to 2019 period. The four large Development projects referred to above include the East-West Tie Expansion, TransCanada's Energy East Pipeline project, the Northwest Bulk Transmission Line project and the GTA Reactors project. While these projects could require significant capital expenditures in the test years, the in-services dates for these projects will be beyond the test years so there will be no impact on the rates requested in this application. Per Section 2.4.2.2, Hydro One's treatment of contributed capital, which is particularly relevant for the Energy East Pipeline project, is shown for specific projects in Exhibit D2, Tab 2, Schedule 3. The treatment of Construction Work in Progress (CWIP) in the four historical years, including the bridge year and in the two test years is shown in Exhibit D2, Tab 3, Schedule 3. Information on the treatment of CWIP beyond the test years is not available.

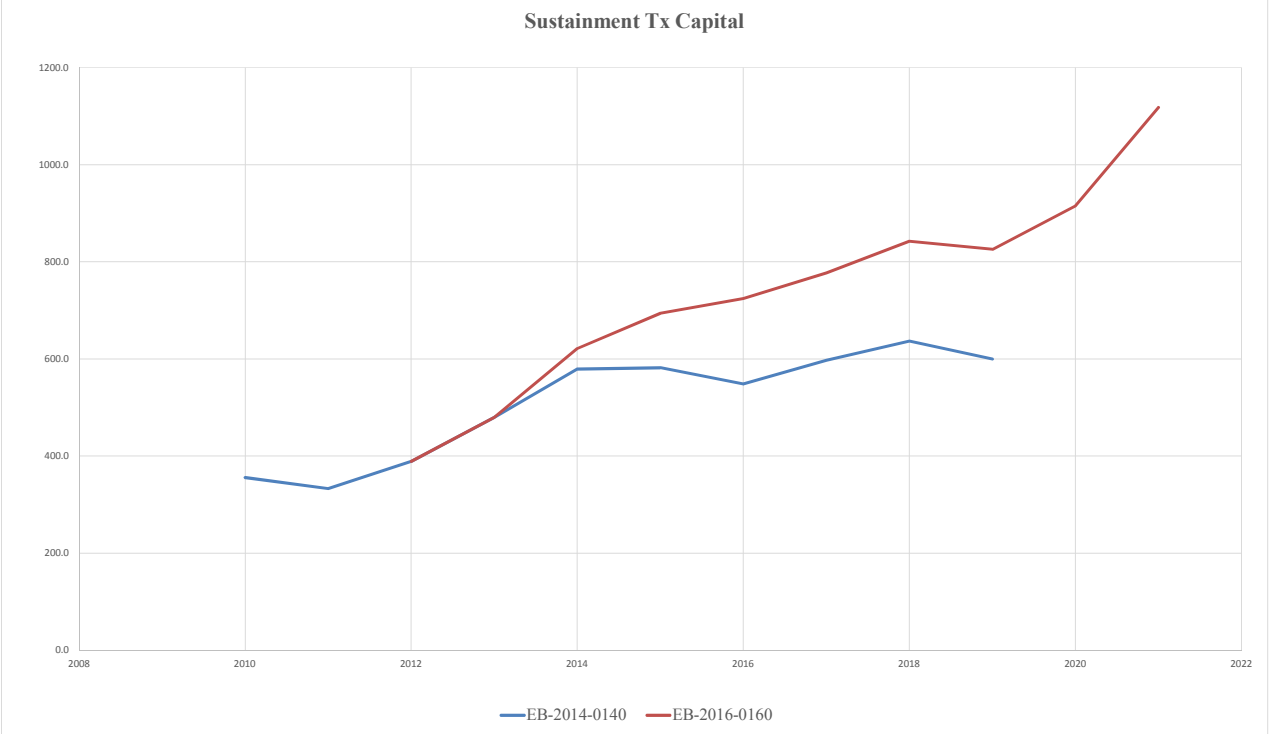
Table 1

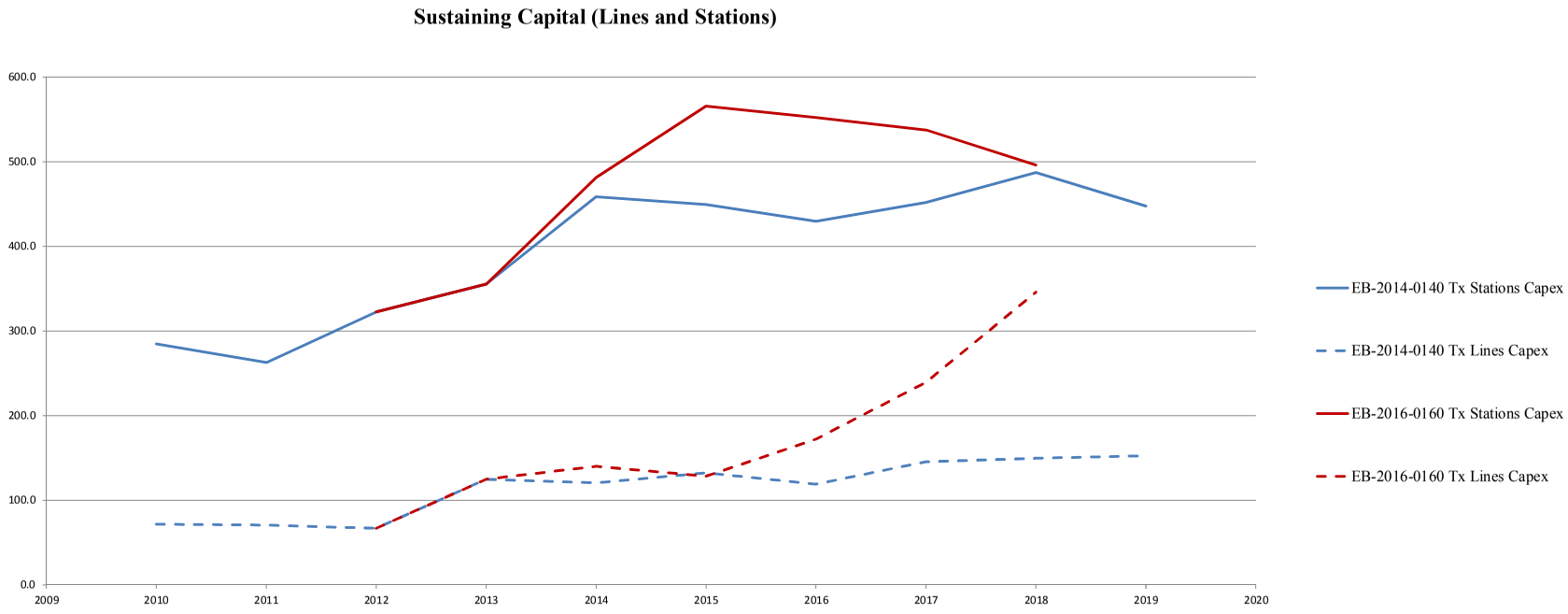
Transmission Capital Expenditures

Transmission Capital ($ millions)	Actual 2010	Actual 2011	Actual 2012	Actual 2013	Budget 2014	Budget 2015	Budget 2016	Budget 2017	Budget 2018	Budget 2019
Sustaining Capital										
Transmission Stations										
Circuit Breakers	29.6	29.2	11.2	23.4	23.0	13.5	24.5	20.3	23.2	24.9
Station Reinvestment	17.9	36.4	62.1	89.0	157.6	241.0	159.7	216.0	251.2	161.2
Power Transformers *(including Strategic Transformers)*	106.8	81.1	78.4	87.0	84.0	30.6	75.3	37.0	51.0	93.4
Other Power Equipment	13.9	16.2	28.3	26.5	24.8	23.7	25.9	26.5	27.0	27.9
Ancillary Systems	13.3	13.5	16.4	15.6	24.2	19.0	19.4	19.8	18.3	18.6
Stations Environment	4.0	7.0	7.6	6.6	8.3	11.3	10.8	11.0	11.2	11.4
Protection, Control, Monitoring, and Telecommunications	66.8	61.6	95.0	84.4	116.9	92.2	95.6	95.4	78.9	83.4
Transmission Site Facilities and Infrastructure	32.3	17.8	23.4	22.9	20.1	18.1	18.5	26.0	26.4	26.7
Total Transmission Stations Capital	284.7	262.7	322.5	355.3	458.8	449.5	429.7	451.9	487.3	447.6
Transmission Lines										
Overhead Lines Refurbishment and Component Replacement	54.0	52.4	55.5	74.2	67.9	67.4	74.5	77.3	79.8	81.0
Transmission Lines Reinvestment	16.2	17.1	9.7	17.8	33.2	36.8	29.3	52.9	54.0	55.5
Underground Lines Cable Refurbishment & Replacement	1.4	1.0	1.6	32.8	19.4	28.1	15.1	15.4	15.7	16.0
Total Transmission Lines Capital	71.6	70.6	66.8	124.8	120.5	132.4	118.9	145.5	149.5	152.5
Total Sustaining Capital	**356.3**	**333.2**	**389.3**	**480.0**	**579.3**	**581.9**	**548.6**	**597.4**	**636.7**	**600.1**
Development Capital										

	Actual 2010	Actual 2011	Actual 2012	Actual 2013	Budget 2014	Budget 2015	Budget 2016	Budget 2017	Budget 2018	Budget 2019
Inter Area Network Transfer Capability	392.8	269.1	117.8	41.7	59.3	96.1	109.7	73.6	45.0	65.0
Local Area Supply Adequacy	58.5	57.5	86.4	54.0	70.9	84.4	67.4	41.5	47.0	66.0
Load Customer Connection	33.8	51.1	60.6	24.7	22.2	17.2	27.6	25.3	16.7	16.7
Generator Customer Connection	3.9	0.1	-0.2	-0.3	9.7	0.1	0.0	0.0	0.0	0.0
Performance Enhancement & Risk Mitigation	19.6	19.0	18.3	27.7	23.7	6.3	2.9	2.8	2.8	2.8
TS Upgrades to Facilities Distribution Generation	12.5	10.3	33.1	13.9	0.3	0.0	0.0	0.0	0.0	0.0
P&C Enablement for Generation Connections	2.1	3.1	2.5	1.2	3.9	2.6	4.2	4.8	4.9	5.0
Smart Grid	0.0	5.8	10.7	8.8	5.5	3.1	0.0	0.0	0.0	0.0
Total Development Capital	**523.1**	**415.9**	**329.4**	**171.7**	**195.6**	**209.7**	**211.8**	**148.0**	**116.4**	**155.5**
Operations Capital										
Grid Operating and Control Facilities	3.6	3.7	3.4	11.3	18.1	14.2	12.5	9.2	9.2	4.8
Operating Infrastructure	4.0	5.0	11.9	6.4	20.5	24.1	24.9	35.2	16.0	14.0
Total Operations Capital	**7.6**	**8.8**	**15.2**	**17.7**	**38.5**	**38.4**	**37.4**	**44.4**	**25.2**	**18.8**
Capital Common Corporate Costs and Other Costs										
Transport, Work & Service Equipment	17.1	13.1	14.6	18.8	22.9	19.8	21.3	19.7	20.9	19.9
Information Technology (including Cornerstone)	24.7	32.9	30.5	22.9	34.6	20.8	22.6	21.1	19.6	17.2
Facilities & Real Estate	7.6	7.8	11.6	7.4	28.3	28.9	24.7	17.2	19.9	19.9
Other (including CDM)	-0.2	-1.5	-14.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Capital Common Corporate Costs and Other Costs	**49.1**	**52.3**	**42.1**	**49.1**	**85.8**	**69.4**	**68.5**	**58.0**	**60.4**	**57.0**
Total Transmission Capital	**936.1**	**810.2**	**776.0**	**718.5**	**899.2**	**899.4**	**866.3**	**847.8**	**838.8**	**831.4**


Total Capital Budget
1600.0
1400.0
1200.0
1000.0
800.0
600.0
400.0
200.0
0.0
2008
2010
2012
2014
2016
2018
2020
2022
EB-2014-0140
EB-2016-0160


Sustainment Tx Capital
1200.0
1000.0
800.0
600.0
400.0
200.0
0.0
2008
2010
2012
2014
2016
2018
2020
2022
EB-2014-0140
EB-2016-0160


Sustaining Capital (Lines and Stations)
600.0
500.0
400.0
300.0
200.0
100.0
0.0
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
EB-2014-0140 Tx Stations Capex
EB-2014-0140 Tx Lines Capex
EB-2016-0160 Tx Stations Capex
EB-2016-0160 Tx Lines Capex

Transmission Capital Expenditures

EB-2014-0140	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Transmission Stations Capital	284.7	262.7	322.5	355.3	458.8	449.5	429.7	451.9	487.3	447.6
Total Transmission Lines Capital	71.6	70.6	66.8	124.8	120.5	132.4	118.9	145.5	149.5	152.5
Total Sustaining Capital	**356.3**	**333.2**	**389.3**	**480.0**	**579.3**	**581.9**	**548.6**	**597.4**	**636.7**	**600.1**
Total Development Capital	**523.1**	**415.9**	**329.4**	**171.7**	**195.6**	**209.7**	**211.8**	**148.0**	**116.4**	**155.5**
Total Operations Capital	**7.6**	**8.8**	**15.2**	**17.7**	**38.5**	**38.4**	**37.4**	**44.4**	**25.2**	**18.8**
Total Capital Common Corporate Costs and Other Costs	**49.1**	**52.3**	**42.1**	**49.1**	**85.8**	**69.4**	**68.5**	**58.0**	**60.4**	**57.0**
Total Transmission Capital	**936.1**	**810.2**	**776.0**	**718.5**	**899.2**	**899.4**	**866.3**	**847.8**	**838.8**	**831.4**

Source:EB-2014-0140: A-16-8, p.3

EB-2016-0160	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Total Transmission Stations Capital	322.5	355.3	481.3	565.8	552.2	537.5	496.2			
Total Transmission Lines Capital	66.8	124.8	140.0	128.4	172.2	239.3	345.9			
Total Sustaining Capital	**389.3**	**480.0**	**621.3**	**694.3**	**724.3**	**776.8**	**842.1**	**825.7**	**915.2**	**1118.1**
Total Development Capital	**329.4**	**171.7**	**131.6**	**166.0**	**166.0**	**196.4**	**170.2**	**244.0**	**254.0**	**258.3**
Total Operations Capital	**15.2**	**17.7**	**28.4**	**15.6**	**30.1**	**25.4**	**30.8**	**58.8**	**21.1**	**24.7**
Total Capital Common Corporate Costs and Other Costs	**42.1**	**49.1**	**63.4**	**67.1**	**83.5**	**77.6**	**79.1**	**79.1**	**78.2**	**73.8**
Total Transmission Capital	**776.0**	**718.5**	**844.6**	**943.0**	**1003.8**	**1076.1**	**1122.2**	**1207.5**	**1268.6**	**1474.9**

Source: B1-3-1, Attach 1 *Source: A-3-1, p.13*

Total Transmission Capital	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
EB-2014-0140	936.1	810.2	776.0	718.5	899.2	899.4	866.3	847.8	838.8	831.4		
EB-2016-0160			776.0	718.5	844.6	943.0	1003.8	1076.1	1122.2	1207.5	1268.6	1474.9

Total Sustaining Capital	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
EB-2014-0140	356.3	333.2	389.3	480.0	579.3	581.9	548.6	597.4	636.7	600.1		
EB-2016-0160			389.3	480.0	621.3	694.3	724.3	776.8	842.1	825.7	915.2	1118.1

Sustaining Capital Breakdown	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
EB-2014-0140 Tx Stations Capex	284.7	262.7	322.5	355.3	458.8	449.5	429.7	451.9	487.3	447.6
EB-2014-0140 Tx Lines Capex	71.6	70.6	66.8	124.8	120.5	132.4	118.9	145.5	149.5	152.5
EB-2016-0160 Tx Stations Capex			322.5	355.3	481.3	565.8	552.2	537.5	496.2	
EB-2016-0160 Tx Lines Capex			66.8	124.8	140.0	128.4	172.2	239.3	345.9	

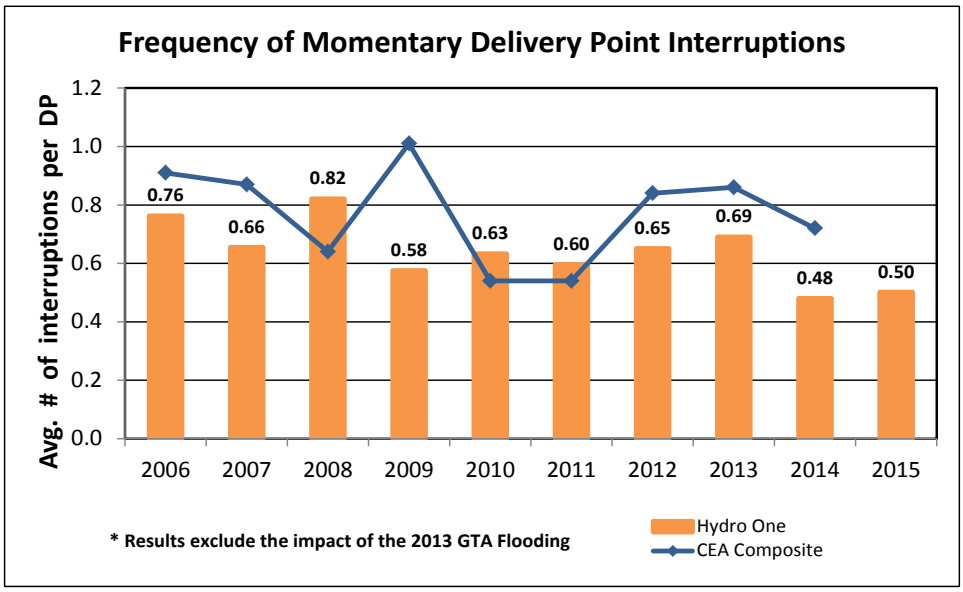


Figure 8a: Comparison of Hydro One Frequency of Momentary Interruptions to CEA Composite

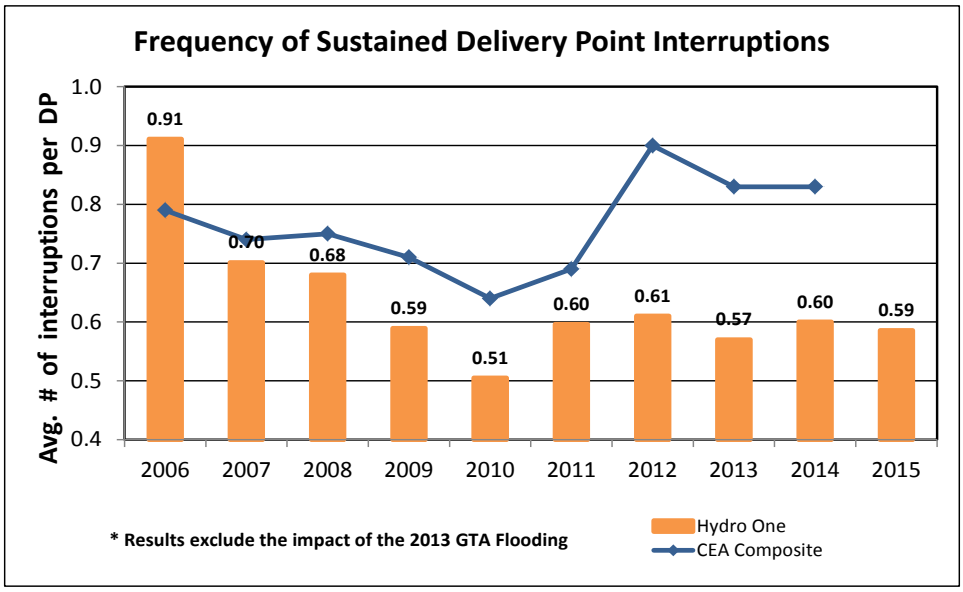


Figure 8b: Comparison of Hydro One to Frequency of Sustained Interruptions to CEA Composite

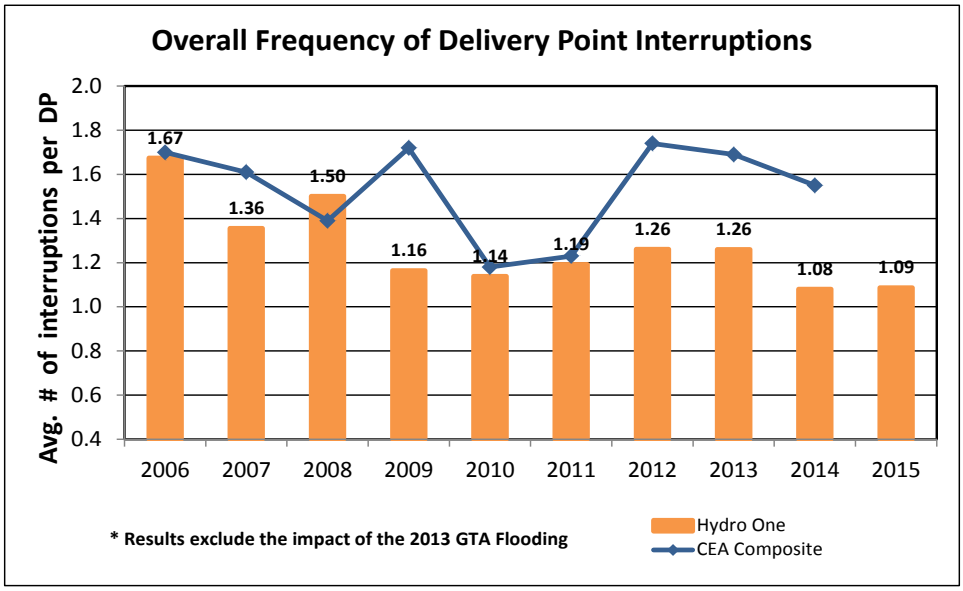


Figure 9: Comparison of Hydro One Overall Frequency of Interruptions to CEA

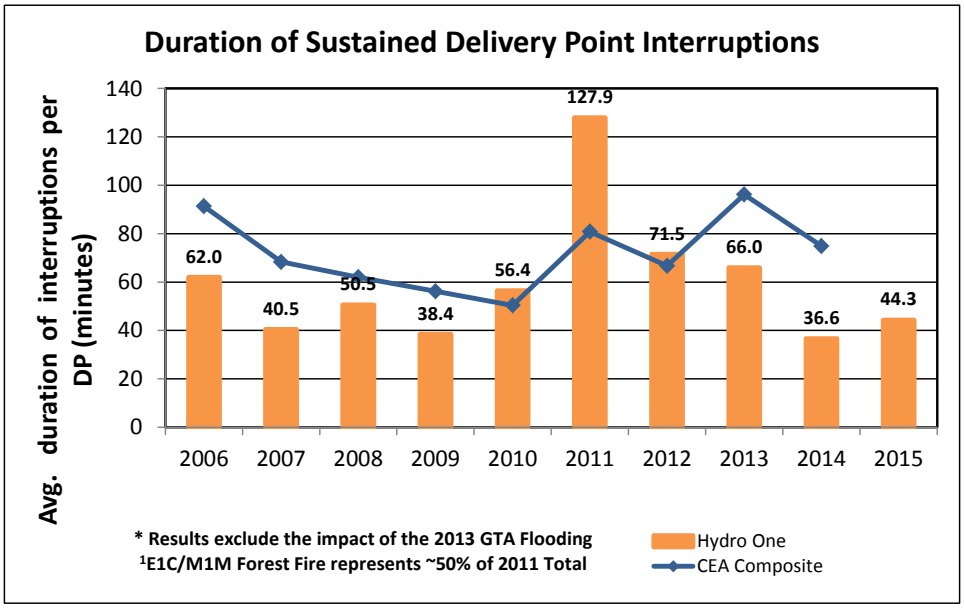


Figure 10: Comparison of Hydro One Duration of Sustained Interruptions to CEA Composite

Witness: Mike Penstone

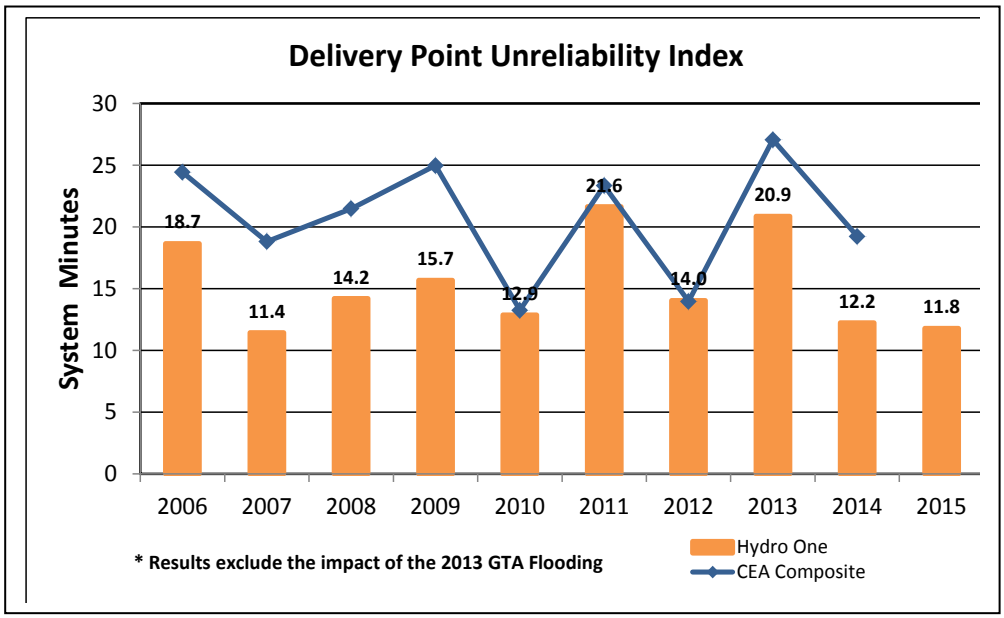


Figure 11: Comparison of Hydro One Delivery Point Unreliability Index to CEA Composite

In this evidence, transmission system forced unavailability is divided into Unavailability of Transmission Lines and Unavailability of Transmission Station Equipment. This is based on the different characteristics of the equipment. Station equipment includes power transformers and circuit breakers, etc. The Unavailability measure represents the extent to which the major transmission equipment is not available for use within the system due to forced outages. The detailed description of this measure is provided in Attachment 2 for both Major Transmission Station Equipment and All Transmission Lines. Figures 12 and 13 illustrate historical performance of Hydro One lines and station equipment in comparison to the CEA Composite five-year moving average performance of all the CEA member utilities.

Witness: Mike Penstone

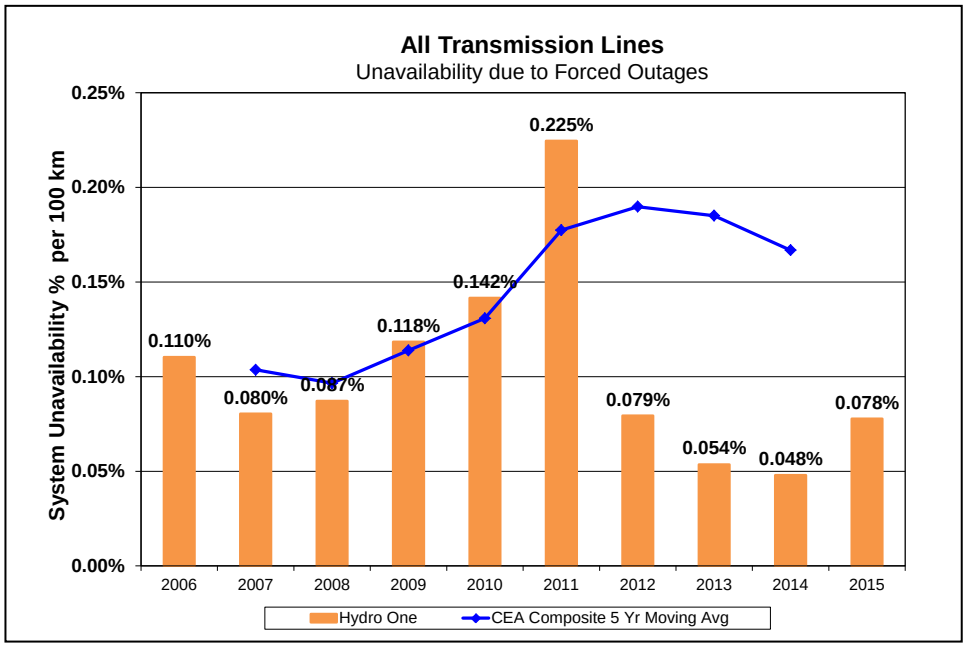


Figure 12: Unavailability of Transmission Lines

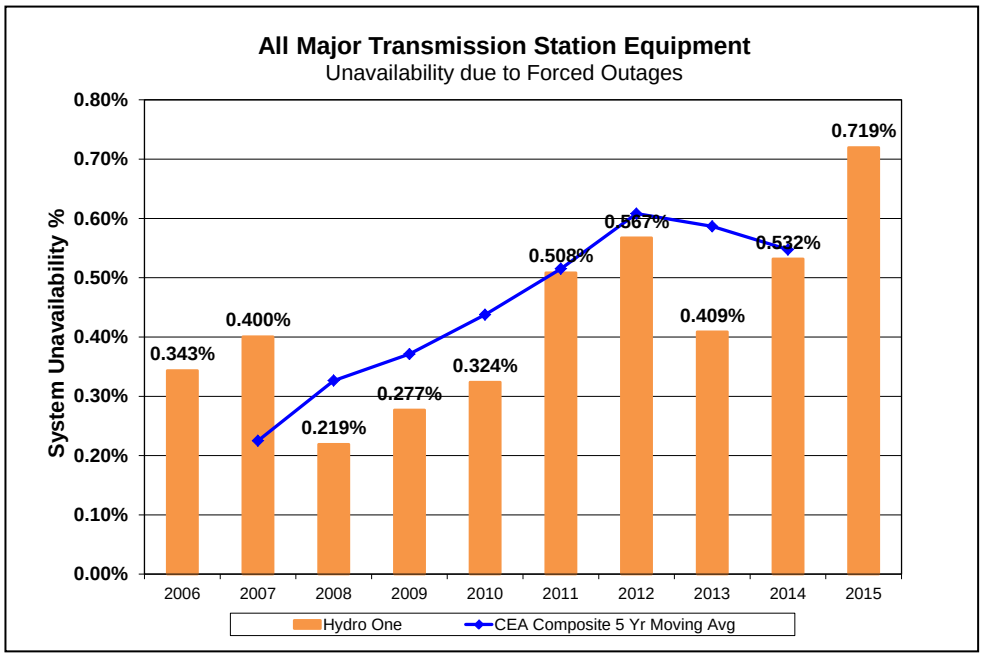


Figure 13: Unavailability of Major Transmission Station Equipment

Witness: Mike Penstone

Equipment performance is a leading indicator of future system reliability. By the time system reliability has measurably degraded, equipment performance will have deteriorated and a significant increase in asset level investment to return to historical reliability levels is required. Sustainment investments are made to preserve performance of critical asset groups by evaluating assets at both an individual asset level and at a station or line level. This prioritizes investment needs to identify the most effective reliability alternative. This approach helps preserve overall system reliability.

Hydro One undertakes an annual detailed assessment of the cited performance measures. This assessment is taken into account along with other factors (such as asset condition) when establishing and prioritizing operating, maintenance and capital programs. For further details see Exhibit B1, Schedule 2, Tab 7, Developing the Investment Plan.

5.4 Delivery Point Performance Outliers

Delivery point performance is evaluated according to the Customer Delivery Point Performance (CDPP) Standard that Hydro One developed, filed with and subsequently approved by the Board in EB-2002-0424. The performance standard is used as a trigger to initiate assessment and follow up with affected customers to:

- Determine the root cause of unreliability;
- Perform technical and financial evaluations; and
- Decide on remedial action to improve reliability.

Figure 14 is a summary of the transmission Group and Individual Customer Delivery Point Performance Outliers as determined by the CDPP Standard criteria from 2007, the first year of formal CDPP reporting.

NATF Transmission Reliability Reports

The first NATF Reliability Report that included Hydro One's information was generated in 2013 and took into account Hydro One's outage data from 2008 to 2012. Given this, only NATF Reliability Reports between 2012 and 2015 include Hydro One information.

The NATF Reliability Report is organized into two groups. The first is Integrated Performance Indicator Index ("**IPII**"). The IPII is a numeric (0-100 points) representing member performance based on an aggregated set of weighted inputs.

Hydro One's IPII quartile ranking on its Total IPII Score and individual parametres are shown below.

	Quartile			
	2012	**2013**	**2014**	**2015**
Number of Participants (including Hydro One)	21	21	21	21
IPII Total Score	3	3	2	3
IPII Score Failed AC Circuit Equipment per Hundred Miles	3	3	3	4
IPII Score Failed AC Substation Equipment per Element	2	1	1	2
IPII Score Failed Protection System per Element	4	3	3	1
IPII Score Human Error per Element	3	2	1	1
IPII Score AC Circuit Unavailability per Element per Year	3	3	2	4
IPII Score AC Transformers Unavailability per Element per Year	2	2	3	3
IPII Score Unknowns per Hundred Miles	2	2	2	2
IPII Score Lightning per Hundred Miles	4	3	3	3
IPII Score Weather Excluding Lightning per Hundred Miles	2	2	2	2
IPII Score Aggregate Residual Causes per Hundred Miles	4	3	3	3

The second group concerns Traditional Reliability Metrics. Outage rates and durations normalized per circuit/element, and circuit/mile, for circuits (200-799kV) are reported. Hydro One's One-Year Quartile Ranking on Traditional Reliability Metrics is shown in the below table.

	Quartile			
	2012	**2013**	**2014**	**2015**
Number of Participants (including Hydro One)	21	21	21	21
AC Circuit Outage Rate per Hundred Miles per Year 200-799 kV	2	3	3	2
AC Circuit Outage Rate per Element per Year 200-799 kV	4	4	4	3
AC Circuit Average Outage Rate Duration of Sustained Outages 200-799 kV	3	3	2	4
AC Circuit Outage Rate Per Hundred Miles per Year-Momentary 200-799 kV	3	4	3	2
AC Circuit Outage Rate per Element per Year Rate-Momentary 200-799 kV	4	4	4	3
AC Circuit Outage Rate per Hundred Miles per Year-Sustained 200-799 kV	2	3	3	2
AC Circuit Outage Rate per Element per Year-Sustained 200-799 kV	2	4	3	3

Hydro One's Five-Year Quartile Ranking on Traditional Reliability Metrics is shown in the below table.

	Quartile			
	2012	**2013**	**2014**	**2015**
Number of Participants (including Hydro One)	21	21	21	21
AC Circuit Outage Rate per Hundred Miles per Year 200-799 kV	3	4	3	3
AC Circuit Outage Rate per Element per Year 200-799 kV	4	4	4	4
AC Circuit Average Outage Rate Duration of Sustained Outages 200-799 kV	2	3	2	2
AC Circuit Outage Rate Per Hundred Miles per Year-Momentary 200-799 kV	4	4	4	3
AC Circuit Outage Rate per Element per Year Rate-Momentary 200-799 kV	4	4	4	4
AC Circuit Outage Rate per Hundred Miles per Year-Sustained 200-799 kV	2	2	3	3
AC Circuit Outage Rate per Element per Year-Sustained 200-799 kV	3	3	4	4

Association of Major Power Consumers in Ontario (AMPCO)
INTERROGATORY #047

Reference:

Exhibit B1 Tab 3 Schedule 1 Page 1

Interrogatory:

a) Please provide a Table that shows the forecast in-service additions compared to actuals for the years ears 2010 to 2015 and forecast for 2006 to 2018 under the categories sustaining, development, operations, common corporate costs capital and Totals.

Response:

Please refer to table below for the data requested, for the four most recent historical years (2012 to 2015) in accordance with the Transmission Filing Guideline, in the following table, and also in Exhibit D1, Tab 1, Schedule 2, Table 1 filed to the OEB on May 31, 2016.

Table 1: In-Service Capital Additions 2014 – 2018 ($ Millions)

	2012	2012	2013	2013	2014	2014	2015	2015	2016	2016	Test Years	
	ISA Actuals	OEB Approved	ISA Actuals	OEB Approved	ISA Actuals	OEB Approved	ISA Actuals	OEB Approved	Bridge Projected	OEB Approved	2017	2018
Sustaining	351.6	394.5	403.8	443.3	655.8	588.4	569.7	572.2	604.5	480.9	771.1	747.7
Development	793.8	1074.8	231.7	261.8	177.9	177.3	27.9	134.7	209.5	119.4	64.6	374.9
Operations	10.6	52.7	5.9	15.1	12.1	14.7	29.4	50.4	15.1	10.0	8.0	10.3
Common & Other	43.5	69.9	62.4	64	68.7	82.9	72.2	64.1	82.6	63.1	87.8	76.8
Total	**1199.5**	**1591.9**	**703.8**	**784.2**	**914.5**	**863.3**[1]	**699.1**	**821.3**	**911.7**	**673.3**	**931.4**	**1,209.7**

[1] The total amount represents the revised in-service capital additions in 2014, presented in the Settlement Agreement which was subsequently accepted by the OEB in EB-2014-0140.

Witness: Brad Bowness

In-Service Capital Additions 2013 – 2018 ($ Millions)										
	EB-2012-0031				EB-2014-0140				EB-2016-0140	
	2013	2013	2014	2014	2015	2015	2016	2016	2017	2018
	OEB Approved	ISA Actuals	OEB Approved	ISA Actuals	OEB Approved	ISA Actuals	OEB Approved	Bridge Projected	Req	Req
Sustaining ($M)	443.3	403.8	588.4	655.8	572.2	569.7	480.9	604.5	771.1	747.7
Development ($M)	261.8	231.7	177.3	177.9	134.7	27.9	119.4	209.5	64.6	374.9
Operations ($M)	15.1	5.9	14.7	12.1	50.4	29.4	10.0	15.1	8.0	10.3
Common & Other ($M)	64	62.4	82.9	68.7	64.1	72.2	63.1	82.6	87.8	76.8
Total ISA ($M)	**784.2**	**703.8**	**863.3**	**914.5**	**821.3**	**699.1**	**673.3**	**911.7**	**931.4**	**1209.7**
Sustaining ($M)	**443.3**	**403.8**	**588.4**	**655.8**	**572.2**	**569.7**	**480.9**	**604.5**	**771.1**	**747.7**
Actuals v. Approved ($M)	-39.5		67.4		-2.5		123.6			
Actual v. Approved (%)	-8.91%		11.45%		-0.44%		25.70%			
Actuals v. Approved ($M)	27.9				121.1					
Actual v. Approved (%)	2.70%				11.50%					
Total ISA ($M)	**784.2**	**703.8**	**863.3**	**914.5**	**821.3**	**699.1**	**673.3**	**911.7**	**931.4**	**1209.7**
Actuals v. Approved ($M)	-80.4		51.2		-122.2		238.4			
Actual v. Approved (%)	-10.25%		5.93%		-14.88%		35.41%			
Actuals v. Approved ($M)	-29.2				116.2					
Actual v. Approved (%)	-1.77%				7.77%					

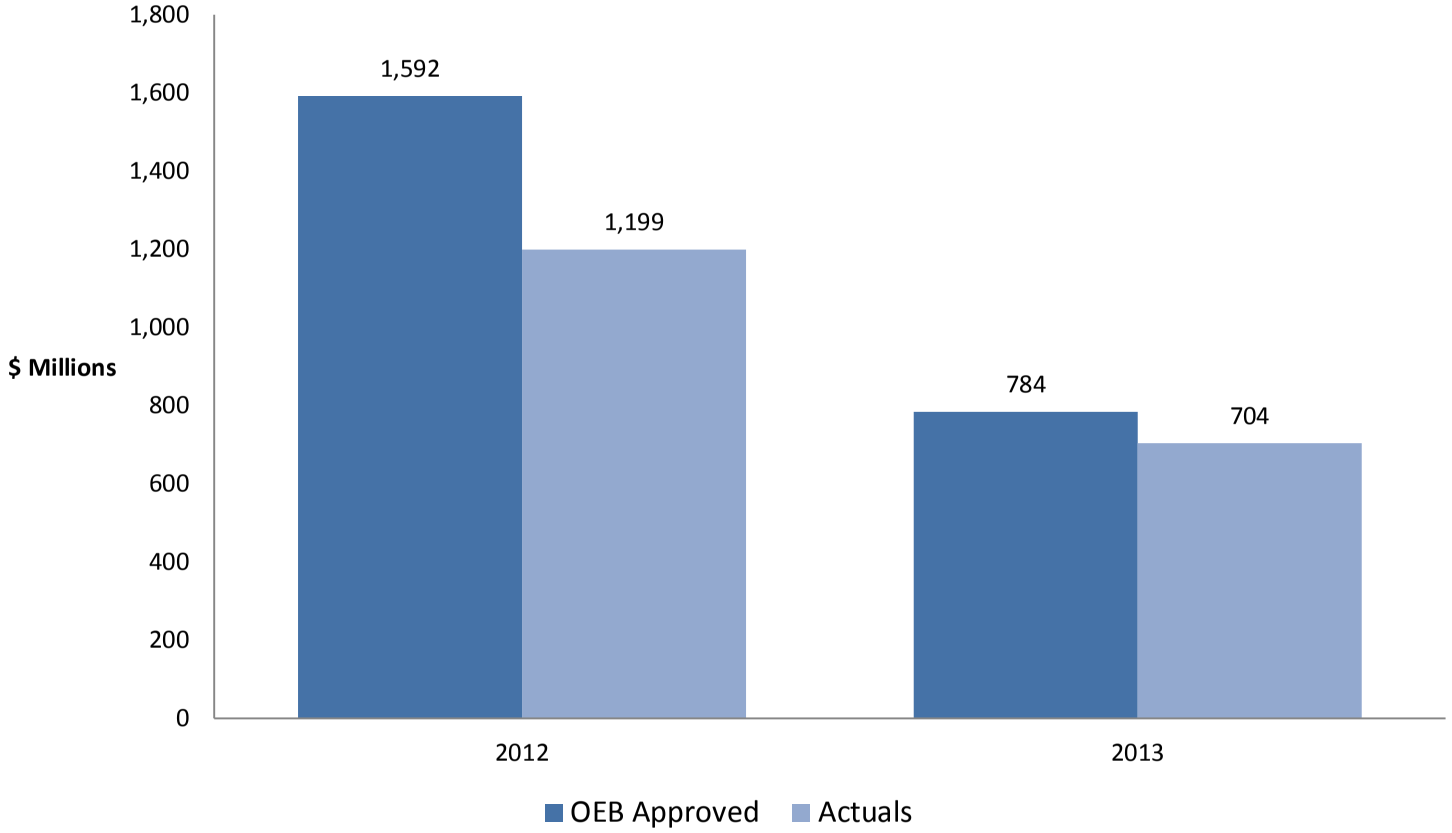
Data source: AMPCO #47

Hydro One 2015-2016 Transmission Rates

Overview of 2012-2013 ISA and 2015-2016 ISA

July 23, 2014

Transmission In-Service Additions



- 2012 Variance: -$393M, 25%
- 2013 Variance: -$80M, 10%

Variance Causes

- Variances are due to project timing, as opposed to total project cost.
- Typically a very small number of projects out of overall work program have issues resulting in ISA variances
- Typical factors which result in ISA variances
  - Construction delays/advances resulting in costs getting booked behind/ahead of plan
  - Increased stakeholder consultation (IESO, First Nations, etc.)
  - Land / Real-Estate Rights, difficult to predict timing
  - Outage availability
  - Unforeseen issues during construction

Substantial Changes for the 2015-16 Plan

- Improved enterprise engagement during development of plan *(project timing, outage availability)*
- Leveraging new systems and tools during development and execution of plan *(project timing, outage availability)*
- Better upfront consideration to outage planning
- Only externally-driven projects with a high degree of certainty of proceeding are included in the plan

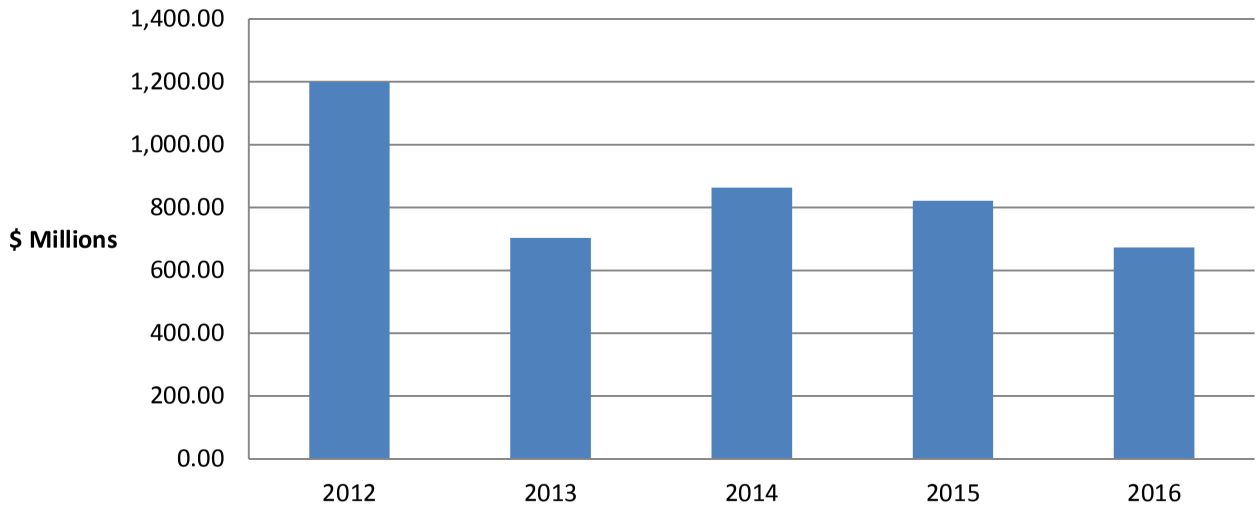
Results:

<u>More Realistic Completion Dates = more accurate ISA forecasts</u>

Looking to 2015-16 ISA

- Large portion of the ISA planned for 2015-16 are projects in later stages of development → less risk around completion dates given maturity of projects
- 2015 and 2016 ISA amounts are in-line with historic actuals

Transmission In-Service Additions
2012-13 Actuals, 2014 Brdige Forecast, 2015-16 Forecast



School Energy Coalition (SEC) INTERROGATORY #004

Reference:

Not Applicable

Interrogatory:

Please provide a copy of Hydro One's 2015-2017 corporate scorecards.

Response:

See following pages for the 2015 Year End Scorecard and the June 30, 2016 Scorecard.

HYDRO ONE LTD.

December 2015 Corporate Scorecard

Strategic Objective	Performance Measure		Year-End Actual	Year-End Target
Injury-free Workplace	**Recordable Rate** *(# of recordable injuries/illnesses per 200,000 hours worked)*	●	1.7	1.7
Satisfying Our Customers	***Customer Satisfaction – Transmission*** *(% satisfied)*	●	79	78
	Customer Satisfaction – Distribution *(% satisfied)*	△	85	86
	Connection of New Services – Distribution *(% completed in ≤ 5 days)*	●	96	95
	Billing Success *(%)*	●	99.7	99.0
	First Call Resolution *(%)*	△	82	83
Continuous Improvement & Cost Effectiveness in the Building and Maintaining Reliable Transmission and Distribution Systems	**Transmission Unit Costs** *(OM&A/Gross Fixed Assets) (%)*	△	2.9	2.8
	Distribution Unit Costs *(OM&A/Gross Fixed Assets) (%)*	●	5.4	5.4
	Duration (SAIDI) - Transmission *(All multi-circuits supplied delivery points, minutes per delivery point)*	△	10.1	10.0
	Duration (SAIDI) – Distribution *(hours per customer)*	△	7.6	7.1
Maintaining a Commercial Culture that Increases Shareholder Value	**Net Income** *(Results are for Hydro One Ltd, including all subsidiaries, $M)*	●	704	695
	In-Service Capital – Transmission *(% of Plan)*	★	105	95
	In-Service Capital – Distribution *(% of Plan)*	★	116	95

Legend	★ Better than plan (≥5%)	● On Plan	△ Below Plan

HYDRO ONE LTD.

June 2016 Corporate Scorecard -- Draft

Strategic Objective	Performance Measure		Year-to-Date Actual	Year-to-Date Target		Year-End (2015 Targets) Projection	Year-End (2015 Targets) Target
Injury-free Workplace	**Recordable Rate** *(# of recordable injuries/illnesses per 200,000 hours worked)*	★	1.3	1.7	●	1.7	1.7
Satisfying Our Customers	**Customer Satisfaction – Transmission** *(% satisfied)*	—	—	—	●	78	78
	Customer Satisfaction – Distribution *(% satisfied)*	●	87	86	●	86	86
	Connection of New Services – Distribution *(% completed in ≤ 5 days)*	●	98	95	●	95	95
	First Call Resolution *(%)*	--	--	--	●	83	83
Continuous Improvement & Cost Effectiveness in the Building and Maintaining Reliable Transmission and Distribution Systems	**Transmission Unit Costs** *(OM&A/Gross Fixed Assets) (%)*	●	1.3	1.3	●	2.7	2.7
	Distribution Unit Costs *(OM&A/Gross Fixed Assets) (%)*	★	2.4	2.8	●	5.5	5.5
	Duration (SAIDI) – Transmission *(All multi-circuits supplied delivery points, minutes per delivery point)*	★	2.8	4.8	●	10.0	10.0
	Duration (SAIDI) – Distribution *(Hours per customer)*	★	3.3	3.4	●	7.1	7.1
Maintaining a Commercial Culture that Increases Shareholder Value	**Net Income** *(Results are for Hydro One Ltd, including all subsidiaries, $M)*	—	—	—	●	695	695
	In-Service Capital – Transmission *(% of Plan)*	△	86	95	●	95	95
	In-Service Capital – Distribution *(% of Plan)*	△	94	95	●	95	95

Legend	★ Better than plan (≥5%)	● On Plan	△ Below Plan

1

Building Owners and Managers Association (BOMA) INTERROGATORY #030

Reference:

Cost of Capital

Interrogatory:

Please explain why Hydro One Transmission's actual ROEs have exceeded its allowed ROE by at least 200 basis points over each of the last several years.

Response:

Hydro One Transmission's actual ROE have exceeded the allowed ROE by at least 200 basis points in 2012-2014, but not in 2015, as outlined below.

	2012	**2013**	**2014**	**2015**
Allowed ROE	9.42%	8.93%	9.36%	9.30%
Actual ROE	12.41%	13.22%	13.12%	10.93%
Variance	**2.99%**	**4.29%**	**3.76%**	**1.63%**

Actual ROE has exceeded allowed ROE by more than 200 basis points for the following major reasons.

In each of 2012-2014, favourable weather resulted in attaining a higher than planned peak demand and thus greater than expected revenues. In addition, over the course of 2012-2014, cumulative in-service additions were less than planned. This resulted in lower depreciation expense and rate base, which respectively affect the numerator and denominator of the calculation of actual ROE.

Specific to 2013, lower OM&A was mainly a result of the company recognizing a one-time property tax rebate. For 2014, lower OM&A was associated with receipt of insurance proceeds for the 2013 flooding at Richview TS and Manby TS.

2015 actual ROE did not exceed allowed ROE by more than 200 basis points.

Witness: Glenn Scott

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Gordon M. Nettleton
Partner
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mccarthy tétrault

November 23, 2016

VIA RESS AND COURIER

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

Dear Ms. Walli:

RE: EB-2016-0160 Hydro One Networks Inc. ("Hydro One") Transmission Rates Application – Actual 3rd Quarter ROE

In its Decision on Motions for Full and Adequate Responses to Interrogatories and Technical Conference Questions released on November 1, 2016, the Board requested Hydro One to file:

> "the actual 3rd quarter ROE (once available) along with the type of analysis that accompanied BOMA IR #30 explaining the reasons for any variance in actual ROE to date compared to the forecast ROE to date embedded in Hydro One's 2016 OEB approved revenue requirement."

Hydro One's actual 3rd quarter ROE and the accompanying explanation as requested by the Board is as follows:

> Year-to-date actual ROE for the third quarter of 2016 is approximately 8.8% or 11.7% annualized.
>
> Higher demand, experienced during a warmer than normal summer, contributed 0.8% annualized to the ROE. After adjusting for weather, the achieved annualized ROE is 10.9%, which is approximately 1.7% above the allowed ROE of 9.19%.
>
> It is important to note that extrapolating OM&A expenses for the full year is not appropriate given fluctuations in spending patterns between quarters. In addition, the application of the half year rule results in greater depreciation expense as the year progresses. As a result, nine-month year-to-date depreciation expenses cannot be extrapolated for the full year given fluctuations between quarters.

Yours truly,

McCarthy Tétrault LLP
Per:

Gordon M. Nettleton
GMN

Building Owners and Managers Association (BOMA) INTERROGATORY #036

Reference:

Exhibit B1, Tab 2, Schedule 1, Page 9

Interrogatory:

The consultations with customers were done not long before the application was filed (eight to ten weeks). What specific amendments were made to the application to reflect their concerns?

Response:

The findings from customer consultations were used to inform investments included in this application. Some specific amendments are:

1) Increased overall sustainment capital program to maintain reliability;
2) Increased investments in lines area to ensure safety and maintain reliability; and
3) Accelerated air blast breaker investment at Middleport TS to maintain reliability.

In addition, the Power Quality (PQ) program, described in Exhibit B1, Tab 3, Schedule 3, was being developed as a result of the PQ Working Group and the feedback from the customer consultation further supported this PQ work.

Witness: Mike Penstone

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Introduction to Hydro One's Investment Planning Process

Winter 2016

Module 1

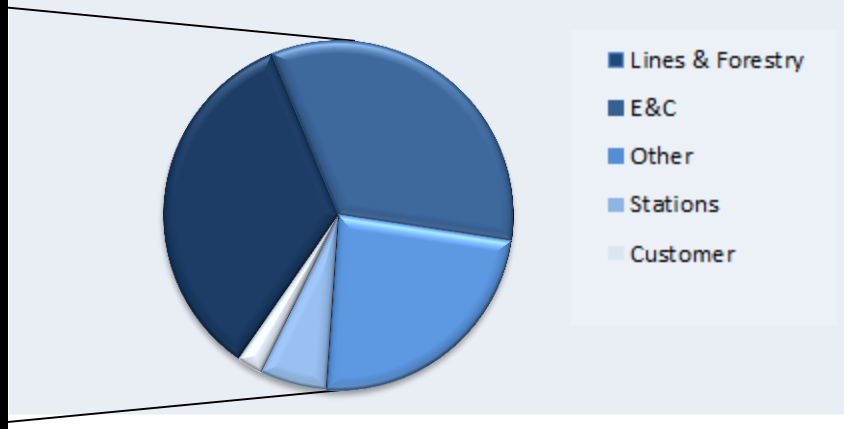
BUSINESS PLAN VS. INVESTMENT PLAN

Business Plan vs Investment Plan

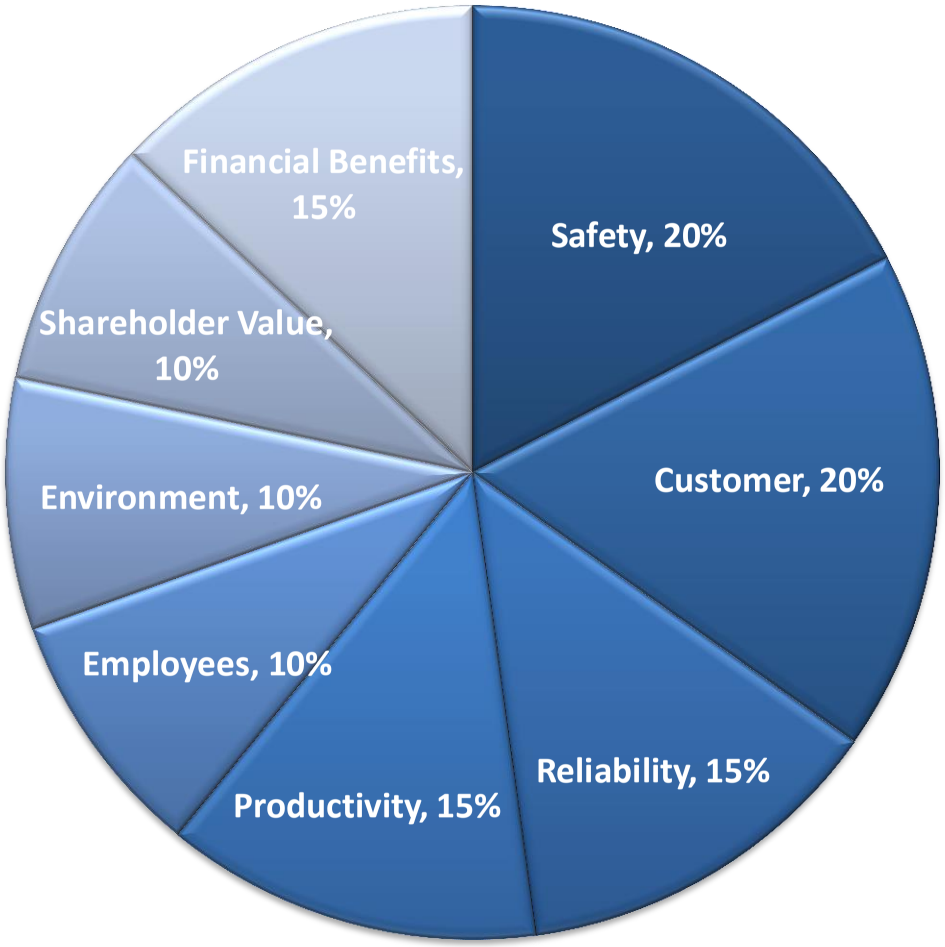
Corporate Business Plan	Investment Plan
Overall 5 year Financial Outlook for *Hydro One Limited.* that spans: • Subsidiaries (Networks, Remotes, Telecom, Acquisitions) • Investments • Staffing & Overheads • Revenue Forecasts • Other (Tax, Depreciation, Working Capital, etc.)	**The *Hydro One Networks* investments planned for the selected time period (all the work that we do):** • Sustainment • Development • Operations • Customer • Other **The Plan Considers:** • Asset Needs (Short-term and Long-Term Risks) • Corporate Objectives • Financial, Regulatory, and Resource Constraints

[redacted]

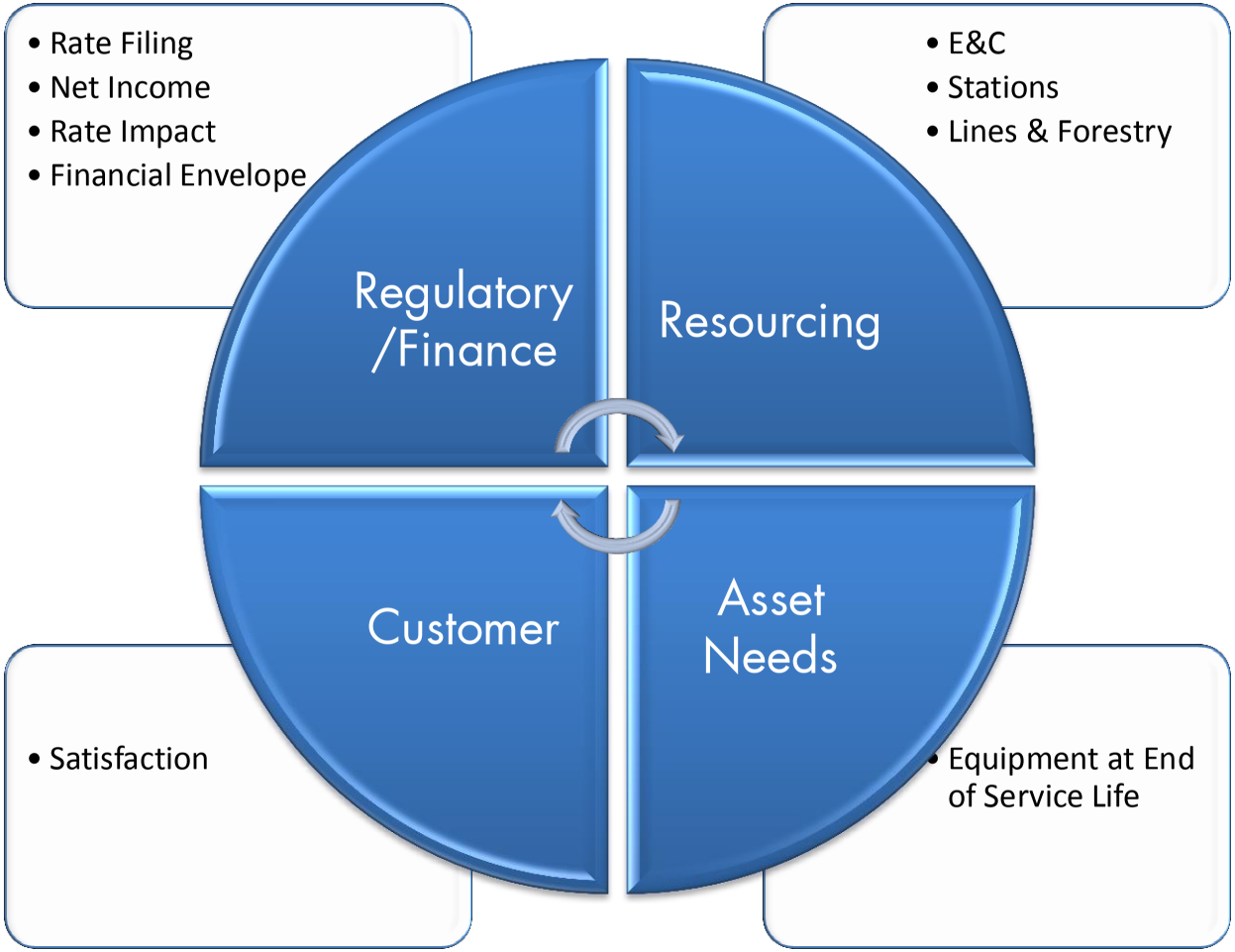
$2.5B CapEx and OM&A



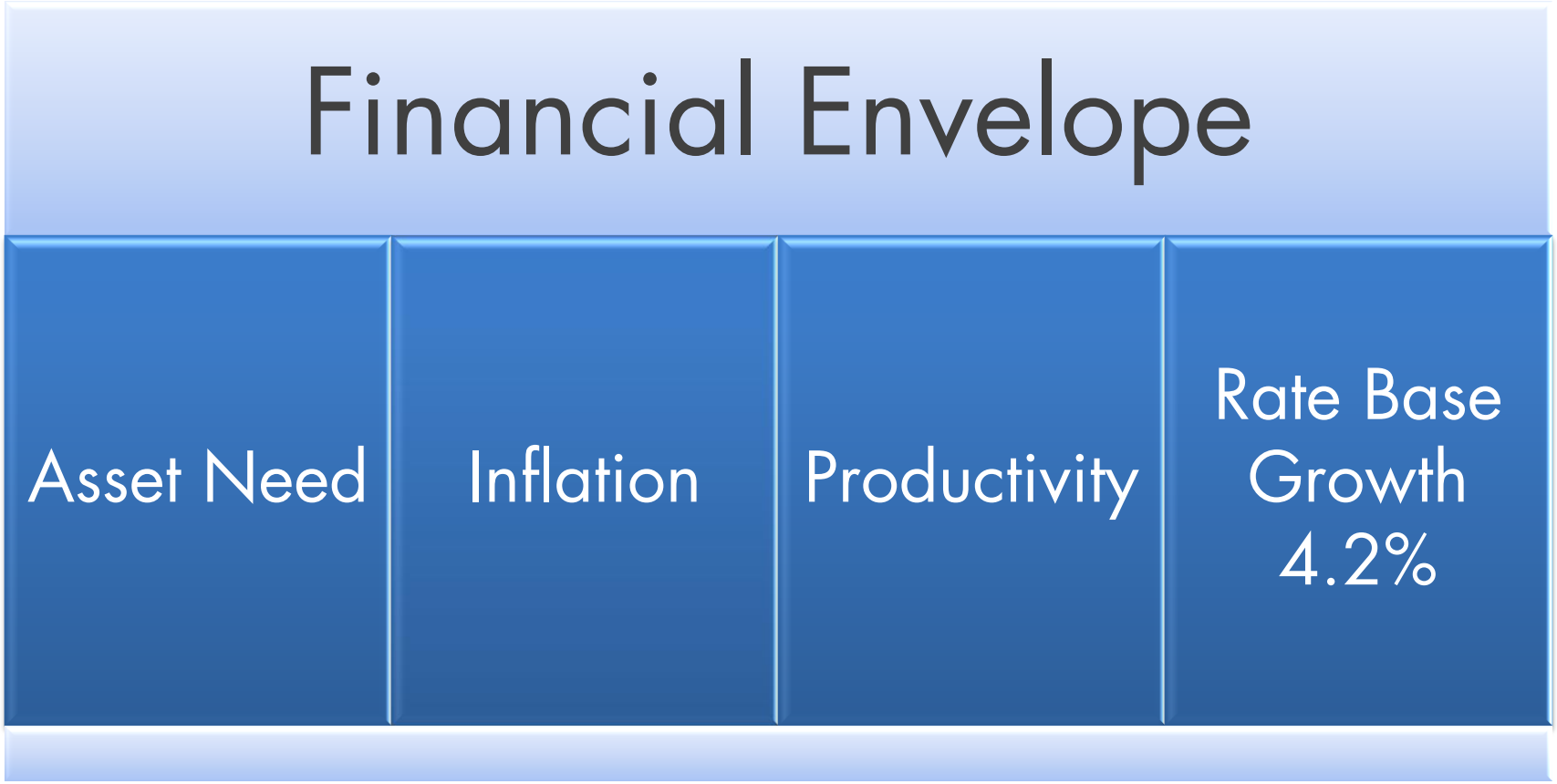
Hydro One's Business Values



Constraints



Financial Framework



Investment Plan Guided by Financial Envelope of Previous Plan

Regulatory Framework

- Plans should be consistent with approved rate decisions/applications in-flight

- Transmission
  - Consistent with 2016-2020 Plan and align to rate filing for years 2017-2018

- Distribution
  - To follow OEB Decision for 2017 and assume IRM rate regime (inflation less productivity) for 2018-2022

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Benchmarking

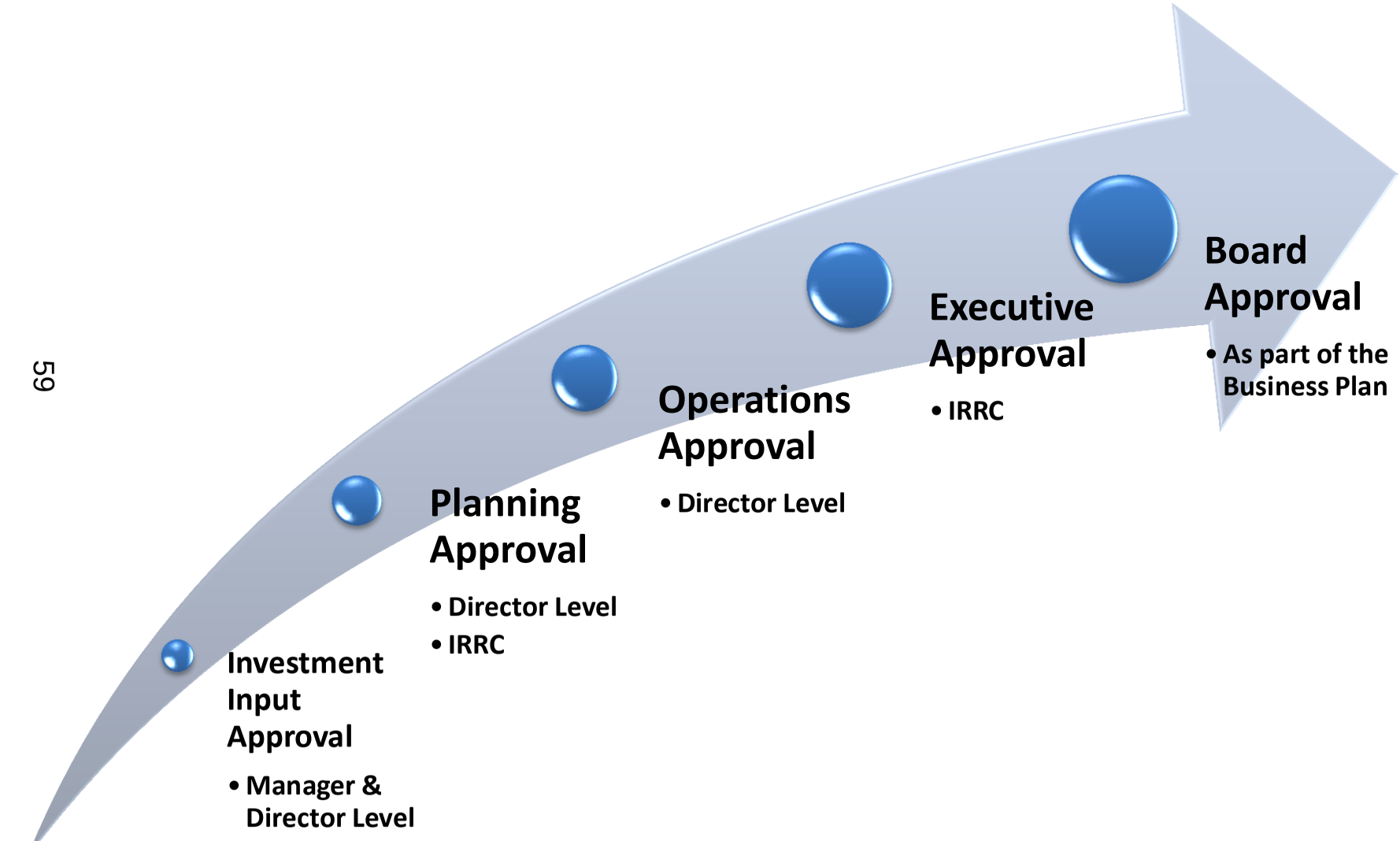
- OEB has mandated productivity studies for both Transmission and Distribution

- Outcome from results of the Studies to be expected in the summer
  - May cause potential changes to the plan between internal approval and Board Approval submission

Investment Input Expectations

Category	Components	Metric
Supporting Documentation	Asset Analytics Investment Development & Justification Scope Financial & Asset evaluations Risk/Value Assessment Potential Need Notifications	☑ ☑ ☑ ☑ ☑ ☑
Ability to Optimize	Shifting of Non-Executing Projects Viable Alternatives for Non-Demand/Non-Contract Programs No Near-Term Placeholders	☑ ☑ ☑
Planning Timelines	Logical and aligned to Estimating guidelines No Year End In-Service Dates (ISD)	☑
Enterprise Engagement	Discussion of Key Investment Details such as: • All cost assumptions are to be agreed by Work Program Management • UPC • Sourcing Model • Planning Timelines	 ☑ ☑

Investment Plan Approval Stages



Schedule

Date	Segment	Duration
Training		
Jan 11 - Feb 10	Planner & Manager Training	4 weeks
Input		
Jan 30	Operations provides Unit Price Catalogue; Planning accepts Unit Price Catalogue	1 day
Feb 1 - Mar 28	Planner Input	8 weeks
Feb 24	Investment Planning Drop-in Session	½Day
Mar 9 - 16	QA Review	1 week
Mar 22	Investment Planning Drop-in Session	½Day
Mar 28 – May 4	Manager/Director Review of Input	4 weeks
Apr 27 – May 3	Investment/Risk Calibration	1 weeks
Optimization and Review		
May 5 – May 18	QA and Optimization	2 weeks
May 19 – 25	Director Review of Optimization Results	2 weeks
May 26 – June 1	Executive Review	1 week
Enterprise Engagement		
June 2 – 20	Executing LOB Review (Lines, Forestry, Stations, E&C)	3 weeks
Investment Plan Approval		
June 30	IRRC IPP Review and Approval	1 day
June 30	Investment Plan Proposal Complete	

SEC-13-ATTACHMENT 1A

1.0 INTRODUCTION

Business planning is performed annually and focuses on the development of a five year plan which comprises a detailed plan for the first three years in the planning cycle and a less detailed outlook for the remaining two-year period. The planning cycle in 2013 actually covered a six year period pertaining to the 2014-2019 period. The results as they apply to 2015 and 2016 (the test years) form the basis for the rate submission.

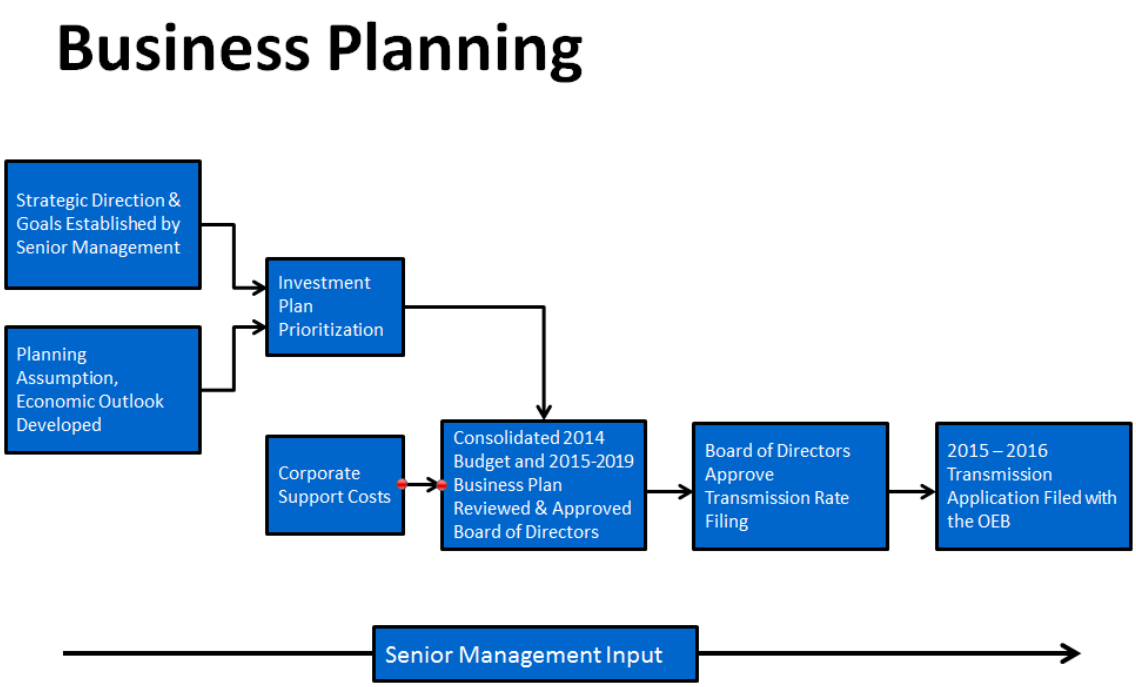
In 2013 Hydro One implemented a new Business Planning and Consolidation (BPC) tool. This tool delivers an integrated financial model to support business planning, budgeting and forecasting enabling a robust, transparent, streamlined, repeatable Business Planning process.

The typical annual business planning process consists of five stages:

1. Establishment of Strategic direction and goals;
2. Development of economic outlook and forecast assumptions;
3. Investment proposals developed;
4. Prioritization and selection of investment plan; and
5. Development of business plans and work programs;

Figure 1 provides an overview of the planning process:

Figure 1 – Business Planning Process



The key dates applicable to the 2014-2019 planning cycle included:

Date	**Action**
April 2013	Strategic direction and goals established by Senior Management
May 2013	Business plan instructions issued
June 2013	Investment proposals developed
July 2013	Investment plan prioritized and selected
November 2013	Hydro One Inc. Board approval of business plan

1.1 Establishment of Strategic Direction and Goals

Hydro One Transmission's strategic direction and goals are reviewed and established by the CEO and other members of the senior management team. The strategic goals are included in the business planning instructions for reference by planners as the business plan is being developed. Hydro One's corporate vision and strategic objectives are shown in Exhibit A, Tab 5, Schedule 1.

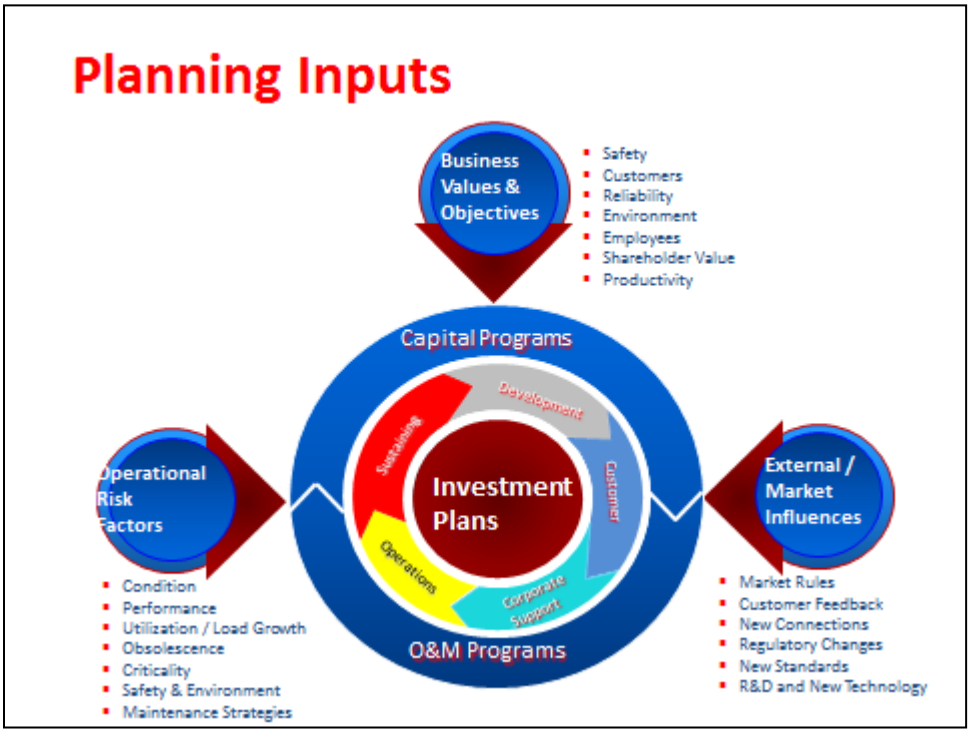
1.2 Development of Economic Outlook and Forecast Assumptions

To facilitate the preparation of the business plan, an economic outlook and customer load forecast is developed and included with the planning instructions issued. This includes forecasts of key economic statistics, interest rates, labour escalation rates, income tax rates, and cost rates for benefits. A detailed discussion of these variables is filed at Exhibit A, Tab 15, Schedule 1. Cost of Capital assumptions can be found in Exhibit B1, Tab 1, Schedule 1.

1.3 Investment Plan Development

As part of the investment plan development phase, inputs including customers' needs (including anticipated load growth and generator connections), criticality of asset, operational performance, and asset age and asset condition are examined as outlined in Figure 2. Data collected is assessed in the context of risk, risk mitigation and to address customers', business and transmission system needs. Exhibit A, Tab 16, Schedule 3 provides a detailed discussion of the Company's investment planning process.

Figure 2 – Planning Inputs



1.4 Prioritization and Selection of Investment Plan

The individual investments resulting from the planning process go through a risk-based prioritization process. The outcome of the risk-based prioritization process is a list of investments that is consistent with Hydro One Transmission's strategic goals and reflects financial, operational, environmental, safety, regulatory and legal considerations. A final investment plan is then endorsed and confirmed by the Hydro One senior management team. See Exhibit A, Tab 16, Schedule 4 for a more detailed description of the work prioritization and selection process.

1.5 Development of Business Plans and Work Programs

During the planning process, plans and work programs are further refined consistent with the economic and forecast assumptions and constraints. As part of this process, sufficient detail is provided to facilitate preparation of the 2015 and 2016 Transmission Rate Application. At the end of this process, the Hydro One senior management team provides direction to balance the various factors under consideration including customer service levels, rate impacts and economic considerations.

The operations, maintenance and administration ("OM&A") budget and the capital budget that result from this planning process are discussed at Exhibit C1, Tab 2 and Exhibit D1, Tab 3 respectively. Refer to Exhibit A, Tab 16, Schedule 5 for an overview of the project and program approval and control process for Hydro One Transmission.

The financial plan is prepared, incorporating OM&A and capital work program levels consistent with the investment plan, as well as forecasts of revenue, cost of power, depreciation and amortization expense, financing charges, income tax, and working capital.

The resulting plan and underlying assumptions are finalized and presented for approval to the Hydro One Inc. Board of Directors. The 2014-2019 Budget and Outlook was approved by the Board of Directors at its November 2013 meeting.

Proposed Transmission Regulatory Scorecard - Hydro One Networks Inc.

			Historical Years					
Performance Outcomes	**Performance Categories**	**Measures**	**2011**	**2012**	**2013**	**2014**	**2015**	**Trend**
Customer Focus **Services are provided in a manner that responds to identified customer preferences.**	**Service Quality**	Satisfaction with Outage Planning Procedures (% Satisfied)	Note 1	78	Note 1	86	92	▲
		Customer Delivery Point (DP) Performance Standard Outliers as % of Total DPs	13.8	10.8	12.8	11.8	Note 2	▲
	Customer Satisfaction	Overall Customer Satisfaction in Corporate Survey (% Satisfied)	85	76	81	77	85	-
Operational Effectiveness **Continuous improvement in productivity and cost performance is achieved; and distributors deliver on system reliability and quality objectives.**	**Safety**	Recordable Incident Rate (# of recordable injuries/illnesses per 200,000 hours worked)	3.7	2.3	2.5	1.8	1.7	▲
	System Reliability	T-SAIFI-S (Ave. # Sustained Interruptions per Delivery Point)	0.60	0.61	0.57	0.60	0.59	-
		T-SAIFI-M (Ave. # Momentary Interruptions per Delivery Point)	0.60	0.65	0.69	0.48	0.50	▲
		T-SAIDI (Ave. Minutes of Interruptions per Delivery Point)	127.9	71.5	66.0	36.6	44.3	▲
		System Unavailability (%)	0.50	0.48	0.37	0.48	0.66	▼
		Unsupplied Energy (minutes)	21.6	14.0	20.9	12.2	11.8	▲
	Asset Management	In-Service Capital Additions (% of OEB approved plan)	95	75	90	106	85	▲
		CapEx as % of Budget	78	81	73	90	106	▲
	Cost Control	Total OM&A and Capital per Gross Fixed Asset Value (%)	9.8	8.6	7.6	8.4	9.0	▲
		Sustainment Capital per Gross Fixed Asset Value (%)	2.6	2.8	3.3	4.2	4.6	Note 3
		OM&A per Gross Fixed Asset Value (%)	3.4	3.0	2.7	2.7	2.9	▲
Public Policy Responsiveness **Transmitters deliver on obligations mandated by government.** **(e.g. in legislation and in regulatory requirements imposed further to Ministerial directives to the Board)**	**Connection of Renewable Generation**	% on time completion of renewables connection impact assessments	100	100	100	100	100	-
	Market Regulatory Compliance	NERC/NPCC Reliability Standards Compliance						
		- Number of High Impact Violations (Note 4)	N/A	N/A	N/A	20	2	
		- Number of Medium/Low Impact Violations (Note 4)	N/A	N/A	N/A	5	10	
	Regional Infrastructure	Regional Infrastructure Planning progress - % Deliverables met	N/A	N/A	N/A	100	100	
Financial Performance **Financial viability is maintained; and savings from operational effectiveness are sustainable.**	**Financial Ratios**	Liquidity: Current Ratio (Current Assets/Current Liabilities)	0.24	0.29	0.80	0.69	0.13	
		Leverage: Total Debt (includes short-term & long-term debt) to Equity Ratio	1.27	1.22	1.10	1.16	1.39	
		Profitability: Regulatory Return on Equity — Deemed (included in rates) (%)	9.66	9.42	8.93	9.36	9.30	
		Profitability: Regulatory Return on Equity — Achieved (%)	10.95	12.41	13.22	13.12	10.93	

Note 1: Customer Satisfaction survey not done in 2011 and 2013.

Note 2: Results will be available in July 2016.

Note 3: In 2014 strategic decision made to increase sustainment capital.

Note 4: Results from 2011 to 2013 are excluded due to a lack of consistant data compared to 2014 and 2015.

Legend:
▲ up
▼ down
- flat

plans of the most significant business units within Hydro One which would typically be presented to senior management for approval.[2]

Q.7 Will you be providing a business level plan?

A.7 No. As indicated in Hydro One's response to Consumers' Council of Canada IR #6[3], Hydro One's strategic planning process is not yet complete. Similarly, as noted by Mr. Hubert at the Technical Conference in this proceeding, Hydro One does not have a completed business plan.[4] As such, neither a new strategic plan nor a current business plan is in place to be filed.

Q.8 Why are these two plans not complete?

A.8 In 2015, Hydro One was in the process of preparing a business plan similar to what has been filed in previous applications. Beginning in May 2015, components of the drafted plan were reviewed by management in the normal course. In July 2015, significant changes occurred which affected the plan:

- Effective July 1, 2015, Hydro One appointed its new Chief Financial Officer;
- On July 17, 2015, a new Board of Directors was appointed; and
- Effective September 3, 2015, Hydro One appointed a new Chief Executive Officer.

In light of these significant changes, the proposed business plan was reviewed and challenged by the new senior management. In November 2015, formal discussion of the draft plan occurred between management and the Board of Directors.

Following this discussion, and recalling that Hydro One had at that time only recently completed its Initial Public Offering ("**IPO**"), the Board of Directors and management agreed that rather than having the Board of Directors approve the draft business plan, management would instead undertake a detailed and exhaustive review of all aspects of the organization. This was done to enable and assess whether the business plans, and

[2] Motions Decision, p 6.
[3] EB-2016-0160, Exhibit I, Tab 13, Schedule 6, Page 1 of 1.
[4] EB-2016-0160, Technical Conference Transcript, Day 2, Page 148, Lines 7-8.

the related, then-upcoming Transmission Rate Application, appropriately and sufficiently reflected the business priorities set by management and agreed by the Board of Directors. These priorities were:

- Focus on customers;
- Reduce the costs of maintaining the electricity system reliability;
- Achieve an injury free workplace;
- Comply with regulatory and reliability standards; and
- Exercise environmental stewardship.

In addition, the new management and the Board of Directors needed to ensure that the projects and activities in the business plan supported the OEB's *Renewed Regulatory Framework for Electricity* ("**RRFE**"), as the Board of Directors and new management considered it critical that the Transmission filing to be submitted in May was consistent with the RRFE.

Q.9 Please describe the review that was undertaken by management and the Board of Directors prior to filing this application.

A.9 Beginning in December 2015, and concluding in May 2016, Hydro One made significant efforts to prepare the Application. This was an extensive process involving review by management of Hydro One's operations and plans, covering such areas as asset management, capital delivery, and operations & maintenance efficiency. This process included a detailed review of the RRFE and focus upon those principles occurred. A customer engagement process to identify customer needs and preferences for purposes of the asset investment plan was developed.[5] Other internal review processes occurred consistent with the RRFE.

Throughout this process, the Board of Directors held meetings with management to be informed of the status of the overall review being undertaken, as well as preparation of

[5] Similarly, the Transmission Cost Benchmarking Study at Attachment 1 of Exhibit B2-2-1, and summarized in the response to Board Staff IR#104, was completed and the recommendations are reflected in the filed Transmission Rate Application: EB-2016-0160, Exhibit B2, Tab 2, Schedule 1, Attachment 1; EB-2016-0160, Exhibit I, Tab 1, Schedule 104.

the final Transmission Rate Application. The memorandum to the Board of Directors respecting the application was provided in Hydro One's response to School Energy Coalition ("**SEC**") IR #001.[6]

Overall, the amount of time, effort and resources Hydro One expended in preparing the Application was equivalent to, if not greater than, those processes used previously in preparing a more traditional business plan.

Q.10 Should the Board be concerned that Hydro One does not have a formalized Business Plan?

A.10 No. The Transmission Rate Application filed by Hydro One contains all the requisite elements, and hence functions as the Transmission Business Plan. As described above, the process undertaken by management and the Board of Directors in filing this Application was extensive. Although there has been no "formal" business plan filed with the Board, Hydro One's management and Board of Directors spent considerable time and effort in a business planning exercise. The result of this exercise is the Transmission Application which serves as Hydro One's business plan and which reflects the outcomes of this planning process. The objectives and high level plans of Hydro One Transmission's business units are all provided in the application in detail.

In the OEB's *Handbook to Utility Rate Applications*, what should be included in a business plan is described:

> "This includes the overall strategy for the regulated business, particularly the utility's goals, how these goals relate to what is sought in the application and the plan to meet them. The OEB expects the business plan to be informed by the utility's engagement with customers. The business plan is supplemented and supported by the associated plans, reports and documentation (including system plans, capital and operational plans, programs, benchmarking, external reviews, and customer engagement activities) which form the core of the rate application. This utility business plan may differ from the corporate business plan that may include matters that go beyond the scope of the OEB's review in a rate application."[7]

All of this information has been provided in the application now before the Board. The intensive work that was completed by management and the Board was necessary. As

[6] EB-2016-0160, Exhibit I, Tab 6, Schedule 1, Attachment 1.

[7] Handbook for Utility Rate Applications, issued by the Ontario Energy Board (13 October 2016), p 6.

discussed, the outcomes of this work include a plan for Transmission that is responsive to the RRFE and to customer needs and preferences.

Q.11 Please provide specific references as to where these elements are addressed in the application.

A.11 Hydro One's strategic goals, values and objectives are summarized at pages 2-4 of Exhibit A-3-1, and further described at Exhibit B1-1-2.[8]

These were also described by Mr. Mayo Schmidt, Hydro One's President and CEO, at pages 3-7 of the September 8, 2016 presentation to the Board panel entitled "2017-2018 Transmission Rate Application". In this presentation, Mr. Schmidt provided a strategic overview which included Hydro One's Vision, Key Outcomes and corresponding RRFE Principles, customer input, success factors that will deliver improved value for ratepayers and shareholders. This presentation has been filed on the record of this proceeding.[9]

Hydro One's customer engagement activities are summarized at pages 4-5 of Exhibit A-3-1 and described in detail at Exhibit B1-2-2.[10] Specific adjustments to the investment plan resulting from the customer engagement process were documented in Hydro One's responses to Building Owners and Managers Association IR#36 and SEC IR #17.[11]

Hydro One's capital expenditure plans and associated need and justification are detailed in its Transmission System Plan summarized at pages 10-13 of Exhibit A-3-1 and further described at Tabs 1 through 4 of Exhibit B1.[12]

Hydro One's operations, maintenance and administrative expense plans and associated need and justification are summarized at pages 18-20 of Exhibit A-3-1 and further described at Tabs 1 through 3 of Exhibit C1.[13]

Extensive external review and benchmarking evidence has been provided in the application:

[8] EB-2016-0160, Exhibit A, Tab 3, Schedule 1, Pages 2-4; EB-2016-0160, Exhibit B1, Tab 1, Schedule 2.
[9] EB-2016-0160, RESS File entitled HONI_TxAppPres_20160908, filed on September 8, 2016.
[10] EB-2016-0160, Exhibit A, Tab 3, Schedule 1, Pages 4-5; EB-2016-0160, Exhibit B1, Tab 2, Schedule 2.
[11] EB-2016-0160, Exhibit I, Tab 2, Schedule 36; EB-2016-0160, Exhibit I, Tab 6, Schedule 17.
[12] EB-2016-0160, Exhibit A, Tab 3, Schedule 1, Pages 10-13; EB-2016-0160, Exhibit B1, Tabs 1-4.
[13] EB-2016-0160, Exhibit A, Tab 3, Schedule 1, Pages 18-20; EB-2016-0160, Exhibit C1, Tabs 1-3.

- The Navigant/First Quartile Total Cost Benchmarking Study agreed to as part of the EB-2014-0140 Settlement Agreement is located in Attachment 1 of Exhibit B2-2-1.[14] Hydro One addresses the recommendations from this study in its response to Board Staff IR #104.[15]

- Attachment 1 of Hydro One's response to SEC IR #57 provides the Hugessen Consulting Preliminary CEO/CFO Pay Benchmarking Report. The response also includes a summary of the Towers Watson Hydro One: Executive Compensation Benchmarking Report at Attachment 2, and a summary of the Towers Watson Hydro One Non-Executive Compensation Benchmarking Report at Attachment 3.[16]

- As noted at pages 15-18 of Exhibit A-3-1, Hydro One's new executive leadership and Board of Directors are committed to building a stronger performance management culture, focused on achieving excellence in execution in all aspects of the company's work with the ability to measure and track performance. This Exhibit summarizes the development of a scorecard and the selection of key performance indicators that will measure the drivers of company performance and track productivity improvements.[17] Exhibit B2-1-1 and its Attachments 1-2 further describe the development of the scorecard and key performance indicators.[18]

In summary, Hydro One believes the material referenced in the above Exhibits complies with the information the Board has described in its *Handbook to Utility Rate Applications* respecting business plans.

[14] EB-2016-0160, Exhibit B1, Tab 2, Schedule 1, Attachment 1.
[15] EB-2016-0160, Exhibit I, Tab 1, Schedule 104.
[16] EB-2016-0160, Exhibit I, Tab 6, Schedule 57, Attachments 1-3.
[17] EB-2016-0160, Exhibit A, Tab 3, Schedule 1, Pages 15-18.
[18] EB-2016-0160, Exhibit B2, Tab 1, Schedule 1; EB-2016-0160, Exhibit B2, Tab 1, Schedule 1, Attachments 1-2.

unit data for the relatively newly initiated steel tower coating program in order to track productivity improvement.

Table 3: Unit Cost Metrics

Line of Bus.	Unit Metric	2012	2013	2014	2015
Forestry	$/ brush control costs per hectare cleared	1,392	1,703	1,624	1,566
	$/ line km cleared	1,896	1,805	2,495	2,234
Provincial Lines	$/ wood structure condition assessment	510	410	400	486
	$/ wood structure replacement	40,432	44,158	56,370	49,806
	$/ 115 kV tower coated	*To be measured going forward*			
	$/230kV tower coated				
Network Operating (only)	$/Cable Locate	18	18	16	16

9. RELIABILITY AND COST EFFICIENCY METRICS

Where appropriate data can be measured and tracked for comparison, Hydro One plans to expand its unit cost data going forward. However, for those parts of the business where unit costs are not currently available, Hydro One has selected productivity metrics to facilitate measurement of efficiency and productivity improvements. One of these measures is Reliability and Cost Efficiency (RCE), a metric that links reliability outcomes to maintenance spend. RCE enables measurement of productivity improvements over time for both lines and stations maintenance work.

RCE is a metric that relates outages to maintenance spend, normalized by asset values. The RCE metric measures the effectiveness and efficiency of maintenance programs. Although this is a new measure, Hydro One has found RCE to be a useful metric, as it