

## REVENUE REQUIREMENT

### 1.0 SUMMARY OF REVENUE REQUIREMENT

Hydro One Distribution follows standard regulatory practice and has calculated revenue requirement consistent with the principles of the 2006 Electricity Distribution Rate Handbook as follows:

**Table 1**  
**Revenue Requirement (\$ Millions)**

Components	2011 <sup>1</sup>	2015	2016	2017	2018	2019	Reference
OM&A	525.0	564.3	610.2	614.0	603.9	600.0	Exhibit C1, Tab 2, Schedule1
Depreciation and Amortization	283.7	355.4	374.9	390.2	402.9	413.6	Exhibit C1, Tab 6, Schedule 1
Income Taxes	34.2	52.5	60.5	63.0	65.4	69.5	Exhibit C1, Tab 7, Schedule 1
Return on Capital	354.0	442.7	477.0	510.8	543.3	576.5	Exhibit B1, Tab 1, Schedule 1
<b>Total Revenue Requirement</b>	<b>1,196.9</b>	<b>1,414.9</b>	<b>1522.6</b>	<b>1578.0</b>	<b>1,615.4</b>	<b>1,659.7</b>	<b>Exhibit E2, Tab 1, Schedule 1</b>
Deduct External Revenues and Other	48.1	47.9	48.9	49.9	49.2	49.9	Exhibit E1, Tab 1, Schedule 2
<b>Revenue Requirement less External Revenues</b>	<b>1,148.9</b>	<b>1,367.0</b>	<b>1,473.7</b>	<b>1,528.1</b>	<b>1,566.1</b>	<b>1,609.9</b>	

*Note 1: This column shows the 2011 revenue requirement approved by the Board in Hydro One Distribution's 2010 and 2011 rate application in EB-2009-0096.*

The above Revenue Requirements are the amounts required by Hydro One Distribution to ensure the most appropriate, cost-effective solution to respond to corporate objectives mainly related to improving customer satisfaction, providing safe, reliable and affordable service and improving overall system reliability.

## **2.0 CALCULATION OF REVENUE REQUIREMENT**

The details of the Revenue Requirement components are as follows:

### **2.1 OM&A Expense**

**Table 2**  
**(\$ Millions)**

	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
Sustaining	329.5	374.4	380.1	363.2	358.1
Development	15.4	17.7	17.0	17.4	17.8
Operations	30.2	34.4	34.8	42.2	41.0
Customer Service	117.8	116.3	114.7	113.5	115.4
Common Corporate Costs and Other Costs	66.7	62.5	62.4	62.4	62.3
Property Taxes & Rights Payment	4.7	4.9	5.0	5.2	5.4
<b>Total OM&amp;A</b>	<b>564.3</b>	<b>610.2</b>	<b>614.0</b>	<b>603.9</b>	<b>600.0</b>

### **2.2 Depreciation and Amortization Expense**

**Table 3**  
**(\$ Millions)**

	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
Depreciation	341.3	352.9	367.8	380.8	392.0
Amortization	14.2	22.0	22.4	22.0	21.6
<b>Total Expense</b>	<b>355.4</b>	<b>374.9</b>	<b>390.2</b>	<b>402.9</b>	<b>413.6</b>

## 2.3 Payments in Lieu of Corporate Income Taxes

**Table 4**  
(\$ Millions)

	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
Income before PILs	203.7	233.9	243.6	252.4	268.1
Tax Rate	26.5%	26.5%	26.5%	26.5%	26.5%
<b>Total PILs<sup>1</sup></b>	<b>52.5</b>	<b>60.5</b>	<b>63.0</b>	<b>65.4</b>	<b>69.5</b>

## 2.4 Return on Capital

**Table 5**  
(\$ Millions)

	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
Return on Debt	188.2	203.5	218.6	235.3	255.1
Return on Equity	254.5	273.5	292.3	308.0	321.4
<b>Return on Capital</b>	<b>442.7</b>	<b>477.0</b>	<b>510.8</b>	<b>543.3</b>	<b>576.5</b>

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<sup>1</sup> Adjusted for R&D ITC and Ontario Education Credit see Exhibit C2, Tab 5, Schedule 1, Attachment A for detailed calculation

### 3.0 REVENUE REQUIREMENT – YEAR OVER YEAR COMPARISON

Table 6 below compares, by element, the Year 2011 approved Revenue Requirement (as per EB-2009-0096) against the Year 2015 proposed Revenue Requirement as well as year over year comparisons of the proposed Revenue Requirement by element for all test years. Details explaining the year over year increase in Revenue Requirement are provided following Table 6.

**Table 6**  
**Comparison of Revenue Requirements: 2011 vs. 2015 (\$ Millions)**

Description	2015 vs. 2011	2016 vs. 2015	2017 vs. 2016	2018 vs. 2017	2019 vs. 2018
OM&A	39.3	45.9	3.8	-10.1	-3.9
Depreciation and Amortization	71.7	19.5	15.3	12.7	10.7
Income Taxes	18.3	8.0	2.5	2.4	4.1
Return on Capital	88.7	34.3	33.8	32.5	33.2
<b>Total Revenue Requirement</b>	<b>218</b>	<b>107.7</b>	<b>55.4</b>	<b>37.4</b>	<b>44.3</b>
Deduct External Revenues	-3.8	1.0	0.9	-0.7	0.6
<b>Revenue Requirement less External Revenues</b>	<b>221.7</b>	<b>106.7</b>	<b>54.5</b>	<b>38.1</b>	<b>43.7</b>

#### Comparison Of Previously OEB-Approved (2011) vs. Proposed (2015)

There are a number of key operational and financial factors contributing to the increased revenue requirement that have an impact across the cost components in Table 6. The increase in Total Revenue Requirement in 2015 is largely attributable to the growth in rate base as reflected in the higher return on capital and depreciation amounts, as well as an increase in OM&A work program requirements. Also contributing to the difference is decreased returns due to lower borrowing costs, offset by higher allowed ROE and lower external revenues.

**Comparison Of Year 2015 To Year 2016**

The increase in 2016 revenue requirement is primarily due to the increase in rate base as reflected in the higher return on capital and depreciation amounts, and an increase in Sustaining OM&A driven primarily by increased vegetation management spending. The increase in rate base over the time period is primarily the net result of asset replacement and expansion needs as described in Exhibit D1, Tab 3, Schedule 1. Also contributing to the change is an increase in borrowing costs and allowed ROE due to higher interest rates forecasts.

**Comparison Of Year 2016 To Year 2017**

The increase in 2017 revenue requirement is primarily due to the increase in rate base as reflected in the higher return on capital and depreciation amounts. The increase in rate base over the time period is primarily the net result of asset replacement and expansion needs as described in Exhibit D1, Tab 3, Schedule 1. Also contributing to the change is an increase in borrowing costs and allowed ROE due to higher interest rates.

**Comparison Of Year 2017 To Year 2018**

The increase in 2018 revenue requirement is primarily due to the increase in rate base as reflected in the higher return on capital and depreciation amounts, partially offset by a reduction in OM&A spending related to vegetation management. The increase in rate base over the time period is primarily the net result of asset replacement and expansion needs as described in Exhibit D1, Tab 3, Schedule 1. Also contributing to the change is an increase in borrowing costs and allowed ROE due to higher interest rates.

## Comparison Of Year 2018 To Year 2019

The increase in 2019 revenue requirement is primarily due to the increase in rate base as reflected in the higher return on capital and depreciation amounts, partially offset by a reduction in OM&A spending. The increase in rate base over the time period is primarily the net result of asset replacement and expansion needs as described in Exhibit D1, Tab 3, Schedule 1. Also contributing to the change is an increase in borrowing costs due to higher interest rates.

Table 7 provides a summary of the value of the key impacts on the Rate Revenue Requirement for the test years.

**Table 7**  
**Impact of the Individual Component on Rate Revenue Requirement (\$ Millions)**

Description	2015 vs. 2011	2016 vs. 2015	2017 vs. 2016	2018 vs. 2017	2019 vs. 2018
Increase in OM&A	39.3	45.9	3.8	(10.1)	(3.9)
Impact of increased rate base	204.2	47.7	43.6	42.3	39.1
Lower/Higher cost of debt	(23.9)	6.4	5.4	6.1	9.6
Higher allowed ROE	1.3	6.9	5.8	1.5	-
Tax - timing differences and other	(3.0)	0.9	(3.1)	(2.5)	(0.5)
Lower/Higher external revenue	3.8	(0.9)	(1.1)	0.7	(0.6)
<b>Total Change</b>	<b>221.7</b>	<b>106.7</b>	<b>54.4</b>	<b>38.0</b>	<b>43.7</b>

## **EXTERNAL REVENUE**

### **1.0 STRATEGY**

Hydro One Distribution's strategy is to focus on core work and continue to be responsive to external work requests and accommodate customer needs where Hydro One Distribution can provide value and have the resources and/or assets to do so.

External revenues are equivalent to approximately 2.9% of Hydro One Distribution's base revenue requirement over the 2015 to 2019 period. External revenues are forecast to rise from \$44.3 million in 2015 to \$46.1 million in 2019, driven largely by increases in joint-use telecom revenue, increased late payment revenues and contestable line work offset somewhat by decreasing generation study revenues.

This category of revenue is earned through the provision of services to third parties and through joint use of Hydro One Distribution's assets by third parties. These revenues are used to offset the revenue requirement from Hydro One Distribution's tariff and thereby reduce the required revenue to be collected from distribution ratepayers. External revenues are categorized as regulated and unregulated.

### **2.0 COSTING AND PRICING**

The costing of external work is determined on the basis of cost causality with estimates calculated in the same way as internal work estimates using the standard labour rates, equipment rates, material surcharge, and overhead rates. See Exhibit C1, Tab 4, Schedule 1 for details on costs of work, generally. The costs associated with external work are described in Cost of Sales - External Work (see Exhibit C1, Tab 2, Schedule 11).

For unregulated work an appropriate margin is added to cover, as a minimum, the risk of non-payment by third parties in order to ensure there is an overall benefit for the distribution ratepayers.

### 3.0 DESCRIPTION

Regulated external revenues for test years 2015 to 2019 are set out in Table 1 below. They account for 85% of external revenues in this period. These revenues cover a wide range of miscellaneous services (e.g. joint use of poles for attachment of Telecommunications, sentinel light services) based on rates and underlying costs set out in the 2006 Electricity Distribution Rate Handbook issued May 2005.

**Table 1**  
**Regulated Revenues**  
**(\$M)**

	Historical Years				Bridge Year	Test Years*				
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
<b>Joint Use</b>	6.4	6.4	6.5	6.6	6.7	11.4	11.7	12.0	12.4	12.7
<b>Sentinel Lights</b>	3.3	3.3	3.2	2.9	3.1	3.5	3.5	3.5	3.5	3.5
<b>Retail Service revenue</b>	1.2	1.3	1.0	0.9	1.0	1.0	1.0	1.0	1.0	1.0
<b>Other Regulated Misc. Services</b>	20.3	21.4	17.9	17.8	22.2	21.7	22.4	23.2	22.0	22.3
<b>Total</b>	31.2	32.4	28.6	28.2	33.0	37.6	38.6	39.7	38.9	39.5

\*Changes in test year forecasts reflects proposed pricing changes as detailed in Exhibit G2, Schedule 5, Schedule 1.

Unregulated external revenues are set out in Table 2 below. They include revenues from contestable new connection and upgrade work and emergency support to other North American utilities. The unregulated external revenues for test years 2015 to 2019 account for the remaining 15% of external revenues in this period.



**Table 2**  
**Unregulated Revenues**  
**(\$M)**

	Historical Years				Bridge Year	Test Years				
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
<b>Joint Use</b>	3.8	3.7	3.8	3.6	3.6	3.6	3.6	3.6	3.6	3.6
<b>Generation Studies</b>	1.7	2.1	1.1	0.6	1.5	1.5	1.5	0.9	0.9	0.9
<b>Other External Work*</b>	4.9	2.6	16.5	4.9	0.2	0.2	0.1	0.6	0.7	0.7
<b>Non-Regulated Misc. Rev.(pertains to under-density and internal revenue)</b>	1.4	1.6	1.9	2.8	1.3	1.4	1.4	1.4	1.4	1.4
<b>Total</b>	11.8	10.0	23.3	11.9	6.6	6.7	6.6	6.5	6.6	6.6

\*Reduced amounts in forecasts for bridge and test years have been properly allocated to Hydro One Transmission.

A detailed summary of both regulated and unregulated revenues is provided in Exhibit E1, Tab 2, Schedule 1.

### **3.1 Regulated Revenues**

#### **3.1.1 Joint Use Revenues**

Joint-use revenues are generated from third parties who jointly use Hydro One Distribution's poles by stringing various attachments to the poles, mostly wire cables. For this right, Hydro One Distribution charges a per pole attachment fee. At the end of 2012, there were approximately 696,222 joint use poles being used by 550 customers, including Bell Canada, telecommunications companies, local distribution companies ("LDCs"), generators, and municipalities. About 90% of the joint-use revenue comes from Bell Canada and other telecommunications companies. The Ontario Energy Board regulates the rates for joint-use service by cable, telecommunications, generation and, recently, local distribution companies. Hydro One Distribution provides unregulated joint-use services to other entities. Unregulated joint use revenue is discussed further in

Section 3.2 of this exhibit. Table 3 below summarizes the volumes of joint use permits (i.e. number of pole attachments) for the regulated segment of joint-use revenues.

**Table 3**  
**Volume of Joint Use permits by Customer Category**

	Historical Years				Bridge Year	Test Years				
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Telecom	287,923	289,393	292,526	293,419	295,261	297,115	298,980	300,857	302,745	304,646
Street Lighting	84,880	84,880	105,842	105,842	105,842	105,842	105,842	105,842	105,842	105,842
LDCs	10,506	11,275	11,757	11,607	12,011	12,429	12,861	13,309	13,772	14,251

As can be seen from the table, the number of attachments is increasing over the 10-year period. The increase is due to new telecommunications companies attaching to poles, and existing companies expanding their service areas. Also, LDC joint use rates are now regulated, when previously they were not. Accordingly, LDC joint use permits are now included in this table.

### 3.1.2 Sentinel Light Revenues

The sentinel light rental program is designed to provide rural customers with low-cost security lighting. The service is provided primarily to rural residential, farm, and cottage customers, for whom street lighting is not available.

Table 4 summarizes the historical volumes of sentinel lights and poles owned and maintained by Hydro One Distribution. The decrease over the period reflects the absence of new customers and a continuing decrease in the number of existing customers.

**Table 4**  
**Volume of Sentinel Lights**

	Historical Years				Bridge Year	Test Years				
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
<b>Sentinel Lights</b>	34,553	33,891	33,229	32,567	31,932	31,309	30,699	30,100	29,513	28,938
<b>Sentinal Light Poles</b>	1,858	1,800	1,742	1,685	1,631	1,579	1,528	1,479	1,431	1,385

### 3.1.3 Other Regulated Miscellaneous Services

Hydro One Distribution provides a number of other regulated miscellaneous services as identified in Table 5 below. The rates for these services are approved and regulated by the Ontario Energy Board. Description for items 1 through 7 can be found in the “2006 Electricity Distribution Rate Handbook, Chapter 11”. The associated volumes of items 1 through 7 (as identified in Table 5) are shown in Table 6(A) and 6(B) along with the information for the historical, bridge and test years. A brief description for items 8 and 9 follows the tables.

**Table 5**

<b>Service Description</b>
1. Dispute Meter Test
2. Collection of Account, Disconnect/load Limiter/Reconnect Trips
3. Account Set-up Charge
4. Arrears Certificate
5. NSF Cheque Charge
6. Easement Charge for Unregistered Rights
7. Late Payment Charge
8. Tingle Voltage Test
9. Standby Rate

**Table 6 (A)**  
**Other Regulated**  
**Miscellaneous Services**  
**2010-2019 Volumes**

	Historical Years				Bridge Year	Test Years				
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
<b>Disconnect / Load Limiter/ Reconnect Trips</b>	17,700	17,700	16,602	15,304	19,497	19,497	19,497	19,497	19,497	19,497
<b>Account Set-up Charge</b>	135,448	136,578	125,100	113,516	125,133	125,166	125,166	125,166	125,200	125,200
<b>In-Sufficient Funds (NSF) Cheque Charge</b>	5,319	5,364	7,000	6,540	5,400	4,600	3,800	3,000	2,200	1,400

**Table 6 (B)**  
**Other Regulated**  
**Miscellaneous Services**  
**2010-2019 Revenues (\$M)**

	Historical Years				Bridge Year	Test Years				
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
<b>Miscellaneous Revenues</b>	0.4	0.0	0.0	1.9	0.1	0.1	0.1	0.1	0.1	0.1
<b>Disconnect/load Limiter/Reconnect Trips</b>	1.5	1.3	1.3	1.0	1.4	1.9	1.9	1.9	1.9	1.9
<b>Account Set-up Charge</b>	4.1	4.1	3.7	3.4	3.7	1.9	1.9	1.9	1.9	1.9
<b>In-Sufficient Funds (NSF) Cheque Charge*</b>	0.1	0.1	0.1	0.13	0.1	0.1	0.1	0.0	0.0	0.0
<b>Late Payment Charge applied to number of distinct accounts</b>	14.2	15.9	12.8	11.4	16.9	17.7	18.5	19.3	18.1	18.4
<b>Total</b>	20.3	21.4	17.9	17.8	22.2	21.7	22.4	23.2	22.0	22.3

1    3.1.3.1    Tingle Voltage Test

2  
3    Tingle voltage (also known as high neutral voltage) is undesirable as it may have an  
4    adverse effect on dairy cattle, and in extreme cases may be noticeable by humans. Hydro  
5    One Distribution strives to limit neutral voltage to 10V. In cases where customers deem  
6    the voltage to be excessive, a voltage test is conducted to determine the cause of the  
7    abnormality. Usually, there is no charge to the customer for this type of analysis;  
8    however, should the customer request further testing, the additional costs are recovered  
9    from the customer. Historically, additional testing is requested approximately 30 times  
10   per year.

11  
12   3.1.3.2    Standby Charges

13  
14   A standby charge is a monthly fee applied to a customer that has its own generation  
15   facilities but retains Hydro One Distribution to provide emergency electricity supply  
16   whenever the customer's own generation facilities are out of service. The monthly charge  
17   marginally offsets the cost to Hydro One Distribution of having facilities available to  
18   ensure such emergency supply. The standby charge only applies when the customer's  
19   day-to-day electricity demands are not serviced by Hydro One Distribution. The 2006  
20   Electricity Distribution Rate Handbook allows a standby administration charge to cover  
21   the incremental cost of monitoring, billing and administration.

22  
23   **3.2        Unregulated Revenue**

24  
25   3.2.1    Joint-Use Revenue

26  
27   As noted in section 3.1.1 above, the OEB does not regulate rates for joint use services for  
28   certain entities. Accordingly, Hydro One Distribution provides these services based on

negotiated prices, which prices may reflect factors such as reciprocal pole sharing and  
 vegetation management.

**Table 7**  
**Volume of Joint-Use permits – Unregulated**

	Historical Years				Bridge Year	Test Years				
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
<b>Bell Canada</b>	<b>448,660</b>	<b>462,536</b>	<b>476,842</b>	<b>487,400</b>	<b>502,022</b>	<b>517,083</b>	<b>532,596</b>	<b>548,573</b>	<b>565,030</b>	<b>581,981</b>

### 3.2.2 Distribution Generation Studies

Hydro One Distribution recognizes revenues for undertaking Connection Impact  
 Assessments in response to connection requests from generation proponents across the  
 Province of Ontario. Hydro One performs connection impact assessments based on a  
 customer request that includes the proposed size of the generator and where it will be  
 located.

Connection impact assessments are technical studies that determine the impact of new  
 generation facilities on the distribution system and ensure that the generator will comply  
 with the technical requirements. The technical requirements that generators must meet to  
 connect to Hydro One distribution system are outlined in the document entitled  
 “Technical Requirements for Generators Connecting to Hydro One's Distribution  
 System”. These requirements exist to ensure public and employee safety, protect the  
 integrity of Hydro One's Distribution System, and guarantee reliable and quality service.  
 For more information on these studies, refer to Exhibit C1, Tab 2, and Schedule 3.

As shown in Table 8, the number of connection impact assessment studies declines in 2013  
 due to fewer new applications for large projects. It also reflects an anticipated increase in

new applications for small projects and project revisions for the test years. The decline in 2017 due to the expected reduction in volume for large project revisions.

**Table 8**  
**Number of Generation Studies Completed**

	Historical Years				Bridge Year	Test Years				
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
<b>Distribution Generation Studies</b>	<b>261</b>	<b>375</b>	<b>197</b>	<b>128</b>	<b>483</b>	<b>482</b>	<b>482</b>	<b>319</b>	<b>319</b>	<b>319</b>

### 3.2.3 Other External Work

New connections and service upgrades are a source of unregulated external revenues. Hydro One Distribution connects between 14,000 and 16,000 new customers to its distribution system each year, consisting primarily of subdivision and rural residential customers along with farms, cottages, and industrial customers. Between 4,300 and 4,700 upgrade services are also completed each year that involve increasing customers' existing supply capacity to meet their increased electricity requirements.

Both the new connection service and the upgrade service have elements of work that must be done by Hydro One Distribution under its Distribution License. This work includes installing required equipment within pre-determined boundaries of live equipment, connecting the customer to Hydro One's distribution system, and connecting the meter at the customer site.

The remainder of the new connection and upgrade work is contestable work, meaning that it may be performed by a qualified contractor of the customer's choice. As required by the Distribution System Code, at the customer's request, Hydro One Distribution will

carry out this work at its fully burdened cost since its crews are usually on-site and set up. For an above ground new connection, this work would include the installation of poles, conductor, and related equipment to run from the distribution line to the meter at the customer site. Similarly, for an underground connection, this would include digging the trench and laying the cable and related equipment. This type of project contributes to the external revenues for this segment.

Table 9 represents the number of new connections and upgrade services Hydro One Distribution provides to customers each year.

**Table 9**  
**Volume of New Customer Connections & Upgrade Services**

	Historical Years				Bridge Year	Test Years				
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
New Connections & Service Upgrades	22,557	18,663	19,531	17,757	19,880	20,080	20,270	20,500	20,710	20,910

Hydro One Distribution is anticipating a slight growth in requests for new connections and service upgrades for the test years.

Hydro One Distribution performs a number of additional services that generate external revenues. These services include contestable work such as: (a) Ministry of Transportation-related work, (b) forestry and brush control work, (c) health, safety and environment training, (d) streetlight maintenance, (e) subdivision redesign, and (f) emergency services.

Expected revenue for the test years remains relatively static.

External training covers a wide range of practical and classroom delivered courses. These



1 include courses like “Electrical Safety Awareness”, a mandatory course for anyone  
2 working in the proximity of live electrical apparatus regardless of trade or occupation.  
3 Packaged delivery of technical courses for numerous trade and professional types are  
4 delivered for Lines, Forestry, Power Electricians, Metering Technicians, Protection  
5 Engineers and Technicians. Customers include large utilities (e.g. Toronto Hydro) and  
6 small utilities (e.g. Peninsula West Utilities Limited), large companies (e.g. INCO), small  
7 companies (e.g. Wardrop Engineering), and non-utility generators (e.g. Trans Alta,  
8 Brighton Beach) that send trainees to a cross section of courses in various trades or  
9 disciplines.

10  
11 Hydro One Distribution will provide an initial subdivision design and will recover this  
12 cost through the staking fee charged to the developer. When the developer revises the  
13 subdivision plan, a redesign of the subdivision is needed. The cost of the redesign is  
14 borne by the developer.

15  
16 If a subdivision design has been completed but construction has not commenced for a  
17 period of twelve months or more, a review of the subdivision design is necessary. This  
18 review includes a field visit. The review is necessary to determine if the original design  
19 is still viable or if a revision is in order. The cost to do this additional work is also  
20 covered by the developer.

21

**Table 10**  
**Number of Subdivision Redesigns**

	Historical Years				Bridge Year	Test Years				
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
<b>Subdivision Redesign</b>	<b>66</b>	<b>50</b>	<b>44</b>	<b>56</b>	<b>50</b>	<b>50</b>	<b>50</b>	<b>50</b>	<b>50</b>	<b>50</b>

Other external work also includes, from time to time, emergency services provided by Hydro One Distribution crews to restore power to neighboring Canadian and U.S. utilities affected by natural disasters such as ice storms and hurricanes.

#### 3.2.4 Un-Regulated Miscellaneous Revenues

##### 3.2.4.1 Under-density Billing

Hydro One Distribution generates under-density billing revenues for northwestern Ontario through annual fees levied upon two large companies that use dedicated, under-density distribution lines operated and maintained by Hydro One Distribution. The load on these under-density lines does not cover the annual costs of maintenance. Therefore, an annual fee is charged to recover maintenance costs.

##### 3.2.4.3 Unregulated Miscellaneous Revenues

Unregulated miscellaneous revenues include \$1.4 million in the test years for work related to other Hydro One entities as follows: \$1.2 million is forecasted for work related to Hydro One Remotes Communities Inc; \$0.2 million is forecasted for work related to Hydro One Telecom. For more information on work related to Hydro One affiliates, see Exhibit A, Tab 11, Schedule 3.

HYDRO ONE NETWORKS INC.  
DISTRIBUTION  
Calculation of Revenue Requirement  
Year Ending December 31  
(\$ Millions)

Line No.	Particulars	2015 (a)	2016 (b)	2017 (c)	2018 (d)	2019 (e)
	Cost of Service					
1	Operating, maintenance & administrative	\$ 564.3	\$ 610.2	614.0	\$ 603.9	600.0
2	Depreciation & amortization	355.4	374.9	390.2	402.9	413.6
3	Income taxes	52.5	60.5	63.0	65.4	69.5
4	Cost of service excluding return (Note 1)	\$ <u>972.2</u>	\$ <u>1045.6</u>	\$ <u>1067.2</u>	\$ <u>1072.1</u>	\$ <u>1083.2</u>
5	Return on capital	442.7	477.0	510.8	543.3	576.5
6	Total revenue requirement	\$ <u><u>1414.9</u></u>	\$ <u><u>1522.6</u></u>	\$ <u><u>1578.0</u></u>	\$ <u><u>1615.4</u></u>	\$ <u><u>1659.7</u></u>

Note 1: Per Exhibit C2-1-1

HYDRO ONE NETWORKS INC.  
DISTRIBUTION  
Revenue Deficiency/(Sufficiency)  
Year Ending December 31, 2015 to 2019  
(\$ Millions)

Line No.	Particulars	2015	2016	2017	2018	2019
1	Utility Rate Base	6,553.3	6,864.4	7,191.4	7,541.3	7,869.6
2	Deemed Equity Portion of Rate Base	2,621.3	2,745.8	2,876.6	3,016.5	3,147.9
3	Allowed / Target Return	9.71%	9.96%	10.16%	10.21%	10.21%
4	Allowed / Target Return on Equity	<b>254.5</b>	<b>273.5</b>	<b>292.3</b>	<b>308.0</b>	<b>321.4</b>
5	Revenue at Current Rates	1,198.2	1,205.0	1,215.5	1,219.3	1,221.9
6	Total Costs and Expenditures	1,107.9	1,188.6	1,222.7	1,242.0	1,268.8
7	Utility Net Income before taxes	90.3	16.4	(7.2)	(22.7)	(46.9)
8	Tax adjustments to accounting income	(103.3)	(100.0)	(111.7)	(121.0)	(122.8)
9	Taxable Income	(13.0)	(83.6)	(119.0)	(143.7)	(169.7)
10	Income Tax Rate	26.50%	26.50%	26.50%	26.50%	26.50%
11	Income Tax on Taxable Income	(3.4)	(22.2)	(31.5)	(38.1)	(45.0)
12	Income Tax Credits	(1.5)	(1.5)	(1.5)	(1.5)	(1.5)
13	Utility Net Income	<b>95.2</b>	<b>40.1</b>	<b>25.8</b>	<b>16.9</b>	<b>(0.4)</b>
14	Revenue Deficiency/(Sufficiency)	159.3	233.4	266.5	291.1	321.8
15	Gross Revenue Deficiency/(Sufficiency)	<b>216.7</b>	<b>317.5</b>	<b>362.5</b>	<b>396.1</b>	<b>437.8</b>

Assumptions:

No filing from 2015-19

Revenue at 2014 rates is with updated load forecast

**External Revenues Historic, Bridge Year and Test Year  
Hydro One Networks Inc.**

		<u>\$M's</u>									
		<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
<b>Regulated Revenues</b>											
Joint Use Revenue		6.4	6.4	6.5	6.6	6.7	6.8	6.9	7.0	7.1	7.2
	Telecommunications	6.2	6.2	6.3	6.4	6.5	6.6	6.7	6.8	6.9	7.0
	Street Lighting	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Sentinel Revenue		3.3	3.3	3.2	3.1	3.1	3.0	3.0	3.0	2.9	2.9
Retail Service Revenue		1.2	1.3	1.0	1.2	1.0	1.0	1.0	1.0	1.0	1.0
Miscellaneous Charges		20.3	21.4	17.9	19.7	22.2	23.0	23.8	24.6	23.4	23.7
	Late Payment Charges	14.2	15.9	12.8	13.0	16.9	17.7	18.5	19.3	18.1	18.4
	Other Miscellaneous Charges	6.1	5.5	5.1	6.7	5.3	5.3	5.3	5.3	5.3	5.3
<b>Total Regulated</b>		<b>31.2</b>	<b>32.4</b>	<b>28.6</b>	<b>30.6</b>	<b>33.0</b>	<b>33.8</b>	<b>34.7</b>	<b>35.6</b>	<b>34.4</b>	<b>34.8</b>
<b>Unregulated Revenues</b>											
Joint Use Revenue		3.8	3.7	3.8	3.6	3.6	3.6	3.6	3.6	3.6	3.6
	Bell Canada	3.8	3.7	3.8	3.6	3.6	3.6	3.6	3.6	3.6	3.6
DX Generation Studies		1.7	2.1	1.1	0.4	1.5	1.5	1.5	0.9	0.9	0.9
Other External Work		4.9	2.6	16.5	6.3	4.2	4.2	4.1	4.6	4.7	4.7
Non-Regulated Miscellaneous Revenue		1.4	1.6	1.9	1.3	1.3	1.4	1.4	1.4	1.4	1.4
<b>Total Unregulated</b>		<b>11.8</b>	<b>10.0</b>	<b>23.3</b>	<b>11.6</b>	<b>10.6</b>	<b>10.7</b>	<b>10.6</b>	<b>10.5</b>	<b>10.6</b>	<b>10.6</b>
<b>Total External Revenue</b>		<b>43.0</b>	<b>42.4</b>	<b>51.9</b>	<b>42.2</b>	<b>43.6</b>	<b>44.5</b>	<b>45.3</b>	<b>46.1</b>	<b>45.0</b>	<b>45.4</b>