

COST OF SERVICE SUMMARY

1. INTRODUCTION

This exhibit presents an overview of Hydro One Transmission's Cost of Service. As summarized in Exhibit C2, Tab 1, Schedule 1, the Cost of Service includes OM&A expenses, Depreciation and Amortization and Income Taxes, for which the overall costs for 2017 and 2018 are shown in Table 1 below:

Table 1: Costs of Service (\$ Millions)

Description	Test Year	
	2017	2018
OM&A	413.1	411.2
Depreciation and Amortization	435.7	470.7
Income Taxes	81.3	90.4
Total Cost of Service	930.1	972.3

2. KEY ELEMENTS OF THE COST OF SERVICE

Hydro One Transmission's forecast cost of service has been developed consistent with corporate strategic goals to sustain a safe and reliable transmission system, as noted in Exhibit B1, Tab 1, Schedule 2. The Company's planning process is described in detail in Exhibit B1, Tab 2, Schedule 1.

Witness: Glenn Scott

2.1 Operation, Maintenance and Administrative Expenses (OM&A)

Total OM&A expenses for the 2017 test year are \$413.1 million and for 2018 are \$411.2 million.

Hydro One Transmission plans and organizes its OM&A expenses on the basis of the various work programs and functions performed by the Company. These work programs primarily address necessary improvements in infrastructure. Exhibits in support of OM&A costs have been prepared by function, and appear within the submitted evidence as follows in Table 2:

Table 2: OM&A Expenditures by Function

Particulars	2017 Total Cost (\$ million)	2018 Total Cost (\$ million)	Reference
Sustaining	241.2	238.5	Exhibit C1, Tab 2, Sch 2
Development	4.8	5.0	Exhibit C1, Tab 2, Sch 3
Operations	61.3	62.1	Exhibit C1, Tab 2, Sch 4
Customer Care	4.0	3.9	Exhibit C1, Tab 2, Sch 5
Shared Services	49.9	47.5	Exhibit C1, Tab 3, Sch 1
Taxes other than Income Taxes	63.6	64.3	Exhibit C1, Tab 3, Sch 7
Updated Pension Expense	-11.0	-8.0	Exhibit C1, Tab 4 Sch 2
Remove B2M Expenses	-0.8	-2.1	
Total OM&A Expenditures	413.1	411.2	Exhibit C1, Tab 2, Sch 1

2.2 Depreciation and Amortization Expense

The Company is proposing to recover \$424.0 million in depreciation and amortization expense in 2017 and \$460.6 million in 2018. Hydro One Transmission's evidence regarding the depreciation study and its impact on depreciation expense is filed at Exhibit C1, Tab 7, Schedule 1.

Witness: Glenn Scott

1
2 **2.3 Income Taxes**

3 As a result of *the Electricity Act, 1998*, Hydro One Transmission has been required to pay
4 proxy taxes from 1999 to the time it ceased to be exempt from income tax under the
5 *Income Tax Act* (Canada). Thereafter, Hydro One Transmission has been required to pay
6 income tax under the *Income Tax Act* (Canada) and the *Taxation Act, 2007* (Ontario).
7 Evidence outlining the calculation of Income Taxes of \$81.3 million for 2017 and \$90.4
8 million for 2018 appears in Exhibit C2, Tab 4, Schedule 1, Attachment 1.

9
10 **3. KEY COMPONENTS IN THE BUILD-UP OF COST OF SERVICE**

11
12 Key components in the build-up of Cost of Service are:

- 13
14 • resourcing,
15 • costing of work,
16 • out-sourced functions, and
17 • corporate cost allocation.

18
19 Each of these components is discussed below.

20
21 **3.1 Resourcing**

22
23 Labour costs are charged to OM&A and Capital work programs. The evidence contained
24 at Exhibit C1, Tab 4 Schedule 1 presents total staff levels and costs incurred by the
25 Company.

Witness: Glenn Scott

1 **3.2 Costing of Work**

2
3 OM&A and Capital work programs are comprised primarily of costs relating to labour,
4 materials and equipment. Exhibit C1, Tab 5, Schedule 1 provides a schedule that
5 explains how costs flow to work programs.

6
7 **3.3 Outsourcing**

8
9 As a strategy to reduce costs, improve efficiency and to improve focus on its primary
10 operations, Hydro One has outsourcing arrangements with Inergi LP and Brookfield
11 Asset Management. Evidence concerning these arrangements can be found in Exhibit
12 C1, Tab 3, Schedule 2.

13
14 **3.4 Corporate Cost Allocation**

15
16 Hydro One Networks Inc. provides common services to its Transmission and Distribution
17 businesses and to other Hydro One subsidiaries on a centralized basis, as this serves as
18 the most economic approach. The costs of these services and assets are assigned to
19 business units on the basis of cost causation. These costs and assets are directly assigned
20 where it is possible to do so. All other costs and assets are allocated based on cost
21 drivers, direct benefits or other methods as appropriate. Exhibit C1, Tab 6 Schedule 1
22 describes these allocation methods, as well as the derivation of the overhead
23 capitalization rate, which determines the assignment of overhead costs to capital
24 expenditures.

Witness: Glenn Scott

1 **COMMON CORPORATE COSTS, COST ALLOCATION**
2 **METHODOLOGY**

3
4 Allocation of Common Corporate Costs to Hydro One's Distribution and Transmission
5 businesses and to each Hydro One affiliate is based on clearly articulated shared
6 functions and services and an established cost allocation approach based on cost causality
7 principles.

8
9 The Common Corporate Costs OM&A programs include the provision of Corporate
10 Common Functions and Services ("CCF&S"), Customer Service, Planning, Information
11 Technology, and Operating Programs to support the Hydro One Networks' Distribution
12 and Transmission businesses. CCF&S are described fully in Exhibit C1, Tab 3, Schedule
13 3 and include Corporate Management, Finance, Human Resources, Corporate
14 Communications & Services, General Counsel & Secretariat, Regulatory Affairs,
15 Corporate Security, Internal Audit and Real Estate & Facilities.

16
17 **1. ALLOCATION METHODOLOGY**

18
19 Since 2004, in connection with each cost of service application, Hydro One has
20 commissioned a study by Black and Veatch (B&V) to recommend a best practice
21 methodology to allocate common corporate costs among the business entities using the
22 common services. The adopted methodology represents the industry's best practices,
23 identifying appropriate cost drivers to reflect cost causality and benefits received. The
24 2015 report on this study is provided as Attachment 1 to this exhibit.

25
26 As part of the 2015 study, the cost drivers used to allocate the common corporate costs in
27 EB-2014-0140 were updated to incorporate current information.

28
Witness: Glenn Scott

1 A time study was conducted within Hydro One's Planning, Operating and Customer
2 Service groups. The time study for these groups spanned a four week period.

3
4 Hydro One accepted the results of the 2015 B&V study as providing a reasonable and
5 equitable approach to the assignment of common corporate costs among the business
6 entities using the common services. This methodology was based on the R. J. Rudden
7 Associates (Rudden) Study that the Board accepted in the Distribution rate decision RP-
8 2005-0020/EB-2005-0378.

9
10 **2. 2017-2018 ALLOCATED AMOUNTS**

11
12 The following Tables 1 to 2 provide the annual allocation of 2017-2018 CCF&S costs,
13 respectively to all business units.

14

Witness: Glenn Scott

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Table 1: Allocation of 2017 CCF&S Costs (\$ Millions)

Description	Total	Transmission	Distribution	Hydro One Telecom	Hydro One Remotes	Hydro One Inc.
Corporate Management	22.3	7.2	6.8	0.1	0.1	8.1
Finance	41.0	21.9	17.9	0.9	0.3	0.1
Human Resources	14.8	7.6	6.8	0.2	0.1	0.0
Corporate Communications & Services	17.3	8.7	8.5	0.0	0.1	0.0
General Counsel & Secretariat	10.4	5.5	4.4	0.1	0.3	0.1
Regulatory Affairs	25.4	9.6	15.0	0.0	0.1	0.8
Corporate Security	4.7	2.2	2.5	0.0	0.0	0.0
Internal Audit	6.3	3.3	2.8	0.1	0.1	0.0
Real Estate & Facilities	59.6	32.2	27.3	0.0	0.0	0.0
Total CCF&S Costs	201.8	98.3	92.0	1.4	1.1	9.1

Witness: Glenn Scott

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Table 2: Allocation of 2018 CCF&S Costs (\$ Millions)

Description	Total	Transmission	Distribution	Hydro One Telecom	Hydro One Remotes	Hydro One Inc.
Corporate Management	22.1	7.1	6.7	0.1	0.1	8.1
Finance	38.6	19.5	17.9	0.9	0.3	0.1
Human Resources	14.2	7.3	6.6	0.2	0.1	0.0
Corporate Communications & Services	19.4	9.9	9.4	0.0	0.1	0.0
General Counsel & Secretariat	10.5	5.6	4.5	0.1	0.3	0.1
Regulatory Affairs	25.9	9.8	15.3	0.0	0.1	0.8
Corporate Security	4.8	2.3	2.5	0.0	0.0	0.0
Internal Audit	6.4	3.4	2.9	0.1	0.1	0.0
Real Estate & Facilities	60.7	32.7	27.9	0.0	0.0	0.0
Total CCF&S Costs	202.7	97.6	93.7	1.4	1.1	9.0

2

3

4

Witness: Glenn Scott

REVIEW OF ALLOCATION OF COMMON CORPORATE COSTS (TRANSMISSION) – 2015

BLACK & VEATCH PROJECT NO. 188588

PREPARED FOR

Hydro One Networks Inc.

4 MAY 2016



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Exhibit A- Functions and Services in Common Corporate Costs
Exhibit B- Types of Cost Drivers

I. Summary

A. BACKGROUND

Black & Veatch Canada Company ("Black & Veatch") is pleased to submit to Hydro One Networks Inc. ("Hydro One") this Report which describes our Review of Allocation of Common Corporate Costs (Transmission)- 2015 ("2015 Review").

In 2004, Black & Veatch was engaged by Hydro One to recommend a best practice methodology to distribute Common Corporate Costs to Hydro One and its subsidiaries and partnership (identified in Table 2). Common Corporate Costs are the costs to provide certain functions and services (identified in Table 3), including those performed by Inergi LP, to Hydro One and its subsidiaries and partnership. Black & Veatch recommended, Hydro One adopted, and the Ontario Energy Board ("OEB") accepted, a methodology to distribute those costs, as described in our *Report on Common Corporate Costs Methodology Review* dated May 20, 2005 ("2005 Common Costs Report").

The OEB-accepted methodology has been applied to Hydro One's Business Plans, and reviewed by Black & Veatch with subsequent reports issued, as follows:

Table 1 - History of Black & Veatch's Cost Allocation Reviews for Hydro One

BLACK & VEATCH REVIEW	BUSINESS PLAN	BLACK & VEATCH REPORT
2006 Review	BP 2007-2011	<i>Report on Implementation of Common Corporate Costs Methodology</i> dated May 31, 2006
2008 Review	BP 2009-2013	<i>Report on Implementation of Common Corporate Costs Methodology</i> dated September 10, 2008
2009 Review	BP 2010-2014	<i>Report on Shared Services Costs Methodology</i> dated June 29, 2009
2010 Review	Updated BP 2010-2014	<i>Report on Shared Services Costs Methodology – 2011</i> dated February 26, 2010
2012 Review	BP 2012-2016	<i>Review of Shared Services Cost Allocation (Transmission) – 2012</i> dated February 1, 2012
2013 Review	BP 2014-2019	<i>Review of Allocation of Common Corporate Costs (Distribution) – 2013</i> dated September 19, 2013
2014 Review	BP 2014-2019	<i>Review of Allocation of Common Corporate Costs (Transmission) – 2014</i> dated March 17, 2014

The OEB-accepted methodology to distribute the Common Corporate Costs has been applied by Hydro One to its Business Plan for 2017-2018 ("BP 2017-2018") data. This Report describes the "2015 Review" that Black & Veatch performed, at Hydro One's request, of Hydro One's application of the methodology to its BP 2017-2018 in connection with its 2017-2018 Transmission rates application, and presents Black & Veatch's conclusions.

B. HYDRO ONE ORGANIZATION

Hydro One Inc. operates through the wholly-owned subsidiaries and partnership listed in Table 2. The OEB regulates, separately, the business units identified as such in Table 2. Each regulated business is required to account separately for its assets, revenues and costs, for both regulatory and financial accounting purposes.

Table 2 – Hydro One Business Units

SUBSIDIARY	BUSINESS UNIT	REGULATED	DESCRIPTION
Hydro One Networks Inc.	Distribution	Yes	Owns and operates a distribution system which spans approximately 75% of Ontario and serves approximately 1.3 million customers.
	Transmission	Yes	Owns and operates substantially all of Ontario's electricity transmission system.
Hydro One Remote Communities Inc.	Remotes	Yes	Owns, operates, maintains and constructs generation and distribution assets used to supply of electricity to remote communities in northern Ontario.
Hydro One Telecom Inc.	Telecom	No	Sells high bandwidth telecommunication services to carriers, Internet service providers, and large public and private sector organizations.
Hydro One Inc.	Holding	Yes	Subsidiary of Hydro One Ltd. Acts as the holding company of Hydro One's rate regulated businesses.
Hydro One Ltd.	Holding	No	Public company that owns Hydro One Inc. for the transmission and distribution rate regulated businesses and Hydro One Telecom Inc. for non-regulated business activity. Hydro One Ltd. is owned by public shareholders as well as the Province of Ontario.
B2M Limited Partnership	B2M Transmission Line	Yes	Continuous transmission line between the Bruce Nuclear Power Development and Hydro One's Milton Switching station.

C. FUNCTIONS AND SERVICES IN COMMON CORPORATE COSTS

Hydro One provides the functions and services identified in Table 3, to the businesses identified in Table 2. Exhibit A further describes the functions and services provided. The BP 2017-2018 includes 2017 Common Corporate Costs totaling approximately \$325 million incurred to perform the relevant functions and services; and the annual total Common Corporate Costs are presented in Table 4.

Approximately 37% of the Common Corporate Costs are incurred under an outsourcing arrangement with Inergi LP ("Inergi"). Common Corporate Costs includes the cost included in BP 2017-2018 for sustainment activities outsourced to Inergi services pertaining to

infrastructure/data centre support services, application management services, disaster recovery services, end-user services, desk-side management services and service management.

Table 3 - Functions and Services in Common Corporate Costs

Hydro One Inc. Corporate Office ■ President/CEO Office ■ Chair ■ CFO's Office ■ Treasurer's Office ■ Board of Directors ■ Corporate Secretariat ■ General Counsel – VP ■ Pension Cost ■ Donations ■ Ombudsman Office ■ Investor Relations	Shared Services ■ Real Estate ■ Value Growth CFO's Office ■ Treasury ■ Corporate Controller ■ Taxation ■ Regulatory Affairs ■ Business Planning & Decision Support
Operations ■ Distribution Asset Management (Note 1) ■ Planning and Optimization (Note 1) ■ Reliability, Strategies, and Compliance (Note 1) ■ System Planning (Note 1) ■ Network Connections and Development (Note 1) ■ Network Operations (Note 1) ■ Transmission Asset Management (Note 1) ■ VP Planning (Note 1) ■ EVP Office – Operations (Note 1) ■ Outsourcing Services ■ Strategic Services	Customer and Corporate Relations ■ Customer Care Services (Note 1) ■ Customer Strategy and Conservation (Note 1) ■ Customer Program Delivery (Note 1) ■ Key Account Management (Note 1) ■ VP Customer Service (Note 1) ■ Meter to Bill (Note 1) ■ Corporate Affairs ■ First Nations and Métis Relations ■ Bad Debt and Goodwill ■ SVP Customer and Corporate Relations
Information Services ■ Corporate Projects ■ Information Technology ■ Security Operations	Inergi LP (outsourced services) ■ Finance ■ Human Resources - Pay Services ■ Accounts Payable
People and Culture	General Counsel & Secretariat
Audit	VP Chief Risk Officer
<i>Note 1- Department participated in 2015 Time Study; see Section V.</i>	

D. BLACK & VEATCH'S ASSIGNMENT

For the 2015 Review, our assignment was to:

- Evaluate whether the existing Common Corporate Cost Allocation Methodology continues to be appropriate for Hydro One, and identify changes that are necessary or desirable.

- b. Review Hydro One's application of the OEB-accepted Common Corporate Cost Allocation Methodology to the BP 2017-2018, in connection with its 2017-2018 Transmission rates application.

The organization presented in Table 3 reflects the creation of new departments, realignment of departments among groups, and realignment of functions among departments, that Hydro One believes will allow it to serve its customers most effectively and efficiently, based on the current business and regulatory environment.

The Common Corporate Costs Model for BP 2017-2018 reflects these organizational changes. Black & Veatch reviewed the cost driver for each activity to determine its continued applicability, and where necessary, the development of the cost driver was updated to reflect the organizational changes.

Concurrently with this 2015 Review, Black & Veatch reviewed and issued reports on Hydro One's Overhead Capitalization Rate methodology, Common Assets allocation and Allocation of Common Corporate Costs to the Bruce-to-Milton (B2M) Limited Partnership.

E. OVERVIEW OF METHODOLOGY

The Black & Veatch methodology for allocating the costs of Hydro One's Common Corporate Costs was designed to address the following considerations:

- Compliance with OEB precedent including Docket RP-2002-0133 (*In The Matter Of The Ontario Energy Board Act, 1998*)
- Compliance with relevant provisions of the Affiliate Relationships Code for Electricity Distributors and Transmitters ("Code")
- Cost incurrence- Are the costs needed to perform services required by the business units?
- Cost allocation- Are costs appropriately allocated among business units, based on the application of cost drivers /allocation factors supported by principles of causality?
- Cost/benefit- Do benefits received equal or exceed the cost?

An overview of the Black & Veatch cost allocation methodology is described below:

- Identify the functions and services included in Common Corporate Costs.
- Identify activities that are performed to provide those functions and services.
- Based on time and/or cost studies, distribute the annual departmental costs in the BP 2017-2018 among the activities performed by that department in providing the functions and services.
- Distribute the cost of each activity among the business units based on direct assignment when possible, and based on cost drivers when direct assignment is not possible.

- The guiding principle used by the Black & Veatch methodology to assign cost drivers is cost causation.

A cost driver is a formula for sharing the cost of an activity among those who cause the cost to be incurred. Cost drivers are discussed in Section D. The different types of cost drivers are described in Exhibit B.

F. SCOPE OF WORK

Consistent with Black & Veatch's standard practice for consulting assignments, we relied on the genuineness and completeness of all documents presented to us by Hydro One, and we accepted factual statements made to us by Hydro One (e.g., headcount, budgeted amounts) subject only to their overall reasonableness and factual accuracy, but without our independent confirmation. All dollar amounts in this Report are stated in Canadian dollars.

G. CONCLUSIONS AND RESULTS

Black & Veatch believes that Hydro One's current cost allocation methodology continues to be appropriate for Hydro One because it achieves the purposes for which it was designed (to distribute costs in a manner that is consistent with OEB precedent and regulatory practice) and promotes transparency and efficiency.

Based on our review, Black & Veatch concludes that the results of Hydro One's application of the Black & Veatch Common Corporate Cost Allocation Methodology to its BP 2017-2018 data reflects a cost causation-based distribution of the Common Corporate Costs and conforms to the OEB-accepted methodology. The annual results for years 2017-2018 are shown in Table 4.

Black & Veatch also notes that Hydro One management believes that the existing methodology is appropriate for the company, the cost allocation process receives strong support from Hydro One management and is well integrated into the budgeting process and the Common Corporate Costs Model is updated periodically to reflect current information.

Table 4 presents the results of Hydro One's distribution of the Common Corporate Costs in BP 2017-2018, annually for 2017-2018, among its Distribution, Transmission and Other businesses.

Table 4 - Distribution of Annual Common Corporate Costs

Business	2017	2018
(\$ Millions)	\$	\$
Transmission	\$ 163	\$ 162
Distribution	\$ 150	\$ 150
Other	\$ 12	\$ 12
Total	\$ 325	\$ 324
(% of Total)	%	%
Transmission	50%	50%
Distribution	46%	46%
Other	4%	4%
Total	100%	100%

II. Statement of Approach

This section presents the approaches used by Black & Veatch to evaluate whether the existing Common Corporate Cost Allocation Methodology continues to be appropriate for Hydro One, and to review Hydro One's application of the methodology to the BP 2017-2018 costs of providing the functions and services included in Common Corporate Costs.

A. EVALUATE COST ALLOCATION METHODOLOGY

The Common Corporate Cost Allocation Methodology was first applied to Hydro One's Business Plan 2006-10. Hydro One requested that Black & Veatch evaluate whether the methodology is still appropriate, and what changes, if any, could be considered. Black & Veatch's approach is discussed in detail in Section III.

B. REVIEW APPLICATION OF COST ALLOCATION METHODOLOGY

In preparing the 2015 Review, Black & Veatch performed the following tasks:

- Task 1. Reviewed Hydro One's current organizational structure and identified departments that perform the functions and services included in Common Corporate Costs.
- Task 2. Identified the activities performed by each department in order to provide the functions and services identified in Task 1.
- Task 3. Determined the Common Corporate Costs in BP 2017-2018 to perform the functions and services in Task 1.
- Task 4. Identified the business units that use the functions and services included in Common Corporate Costs.
- Task 5. Distributed Common Corporate Costs (time for labour resources and cost for non-labour and Inergi resources) reflected in BP 2017-2018 for departments identified in Task 1, among the activities identified in Task 2.
- Task 6. Directly assigned activity costs to business units where a direct relationship exists.
- Task 7. For activities where less than all of the BP 2017-2018 costs were directly assigned to business units in Task 6, assigned a cost driver that reflects cost causation.
- Task 8. Populated the cost drivers.
- Task 9. Reviewed the 2015 Time Study.
- Task 10. Computed total Common Corporate Costs allocated to each business unit.
- Task 11. Performed analytical review of results.
- Task 12. Reviewed the Common Corporate Costs used to perform the computations.

C. PRINCIPLES OF COST ALLOCATION

There are two methods to allocate or distribute shared costs among a utility's business units – Direct Assignment and Allocation. *Direct Assignment* is used when it can be reasonably determined that all or a portion of an activity is performed for a particular business unit. Direct Assignment is completed through the use of time studies or time surveys; where participants either fill out a daily time sheet or provide an indication of how their time is spent throughout the year. Approximately 75% of Common Corporate Cost in the BP 2017-2018 was assigned directly to one or more of Hydro One's business units.

Allocation is used when more than one business unit uses an activity, but the portions of the activity that each uses cannot be directly established through a time study or time survey. In this case, a cost driver must be assigned to distribute the costs of the activity. A cost driver is a formula for sharing the cost of an activity among those entities that cause the cost to be incurred. The principles used by Black & Veatch to assign cost drivers are discussed in Section II.D below.

D. COST DRIVERS

As stated above, a cost driver is a formula for sharing the cost of an activity among those entities that cause the cost to be incurred. The guiding principle that Black & Veatch uses in assigning cost drivers is cost causation. Cost causation means that there is a causal relationship between the cost driver and the costs incurred in performing the activity. In some cases, cost causation cannot be easily implemented or established, in which case selecting cost drivers based on benefits received is a fair alternative treatment.

Other factors considered in assigning cost drivers include:

- Practicality – The cost driver should be understandable, obtainable at reasonable cost, and objectively verifiable in the initial year as well as in subsequent years.
- Stability – Cost driver values should be reasonably stable from year to year. When estimates are used, the cost driver should be able to be estimated with reasonable accuracy, and estimates should be unbiased.
- Materiality – When choosing between cost drivers, small differences can often be ignored in favor of Practicality and Stability (see above).

E. TYPES OF COST DRIVERS

Cost drivers can be classified as External or Internal. *External* drivers are based on data that are external to the cost allocation process, such as physical units or financial amounts.

Internal drivers are based on values computed as an integral part of the cost allocation process. For example, the cost of a supervisor's salary might be allocated in the same proportion as the salaries of the people being supervised, and the cost of general departmental expenses might be allocated in the same proportion as the specifically assigned departmental activities. Exhibit B further describes the different types of cost drivers.

III. Evaluate Cost Allocation Methodology

The Common Corporate Cost Allocation Methodology was first applied to Hydro One's BP 2006-10. Black & Veatch has also reviewed the application of the methodology to subsequent business plans, as listed in Section I.A. The purpose of this portion of the 2015 Review was to evaluate if the methodology is still appropriate, including reviewing changes that were recommended in the past.

Based on our discussions with Hydro One personnel and review of the Common Corporate Costs Model, Black & Veatch determined that the cost allocation methodology continues to be appropriate for Hydro One because:

- It meets best practices since it distributes costs based on cost causation, including the use of direct assignment when possible, and then through the use of cost drivers.
- It has been accepted by the OEB.
- It has the support of Hydro One management, and is understood and accepted by the Hydro One business units.
- It allows the business units to determine precisely what amounts they are charged by department and by activity within the department; this transparency provides a basis for understanding the nature of the charges and value of the services received.
- It is well-integrated with Hydro One's annual Business Planning process and produces reasonably stable results over time.
- It accommodates changes in Hydro One's organization, and the Common Corporate Costs Model can be adapted easily to reflect those changes.

Black & Veatch believes that the current cost allocation methodology continues to be appropriate for Hydro One, because it achieves the purposes for which it was designed (to distribute costs in a manner that is consistent with OEB precedent and regulatory practice), and promotes transparency and efficiency.

IV. Review Application of Methodology to BP 2017-2018

In this Section we will discuss each of the Tasks performed in the Scope of Work, as stated in Section B. This includes the purpose of the Task, the steps performed, the source of the information, and the results.

Task 1. Reviewed Hydro One's current organizational structure and identified departments that perform the functions and services included in Common Corporate Costs.

The purpose of this Review was to evaluate the allocation of the Common Corporate Costs among the businesses that use the functions and services.

The organization of Hydro One Inc. is described in Section I.B. The functions and services support the Distribution business and the Transmission business, and the other businesses listed in Table 2. The departments that perform the functions and services in Common Corporate Costs are listed in Table 3. Exhibit A further describes the functions and services. This information was provided by Hydro One in discussions and documents.

Task 2. Identified the activities performed by each department in order to provide the functions and services identified in Task 1.

The purpose of this task was to identify the activities that are performed in order to provide each of the functions and services.

Functions and services (identified in Task 1) are performed for the benefit of the business units. Activities (discussed in this Task 2) are the tasks performed in order to provide the functions and services. Activities are measured in the amount of resources used.

To distribute the resources required to provide the functions and services included in Common Corporate Costs among the business units on the basis of cost causation, the activities performed were identified and described by Hydro One to Black and Veatch.

Task 3. Determined the Common Corporate Costs in BP 2017-2018 to perform the functions and services in Task 1.

In this task, we obtained the BP 2017-2018 costs for the departments that provide the functions and services included in Common Corporate Costs. Hydro One provided to Black & Veatch the labour and non-labour portions of the BP 2017-2018 for each of these departments, as well as descriptions of major non-labour cost items.

Task 4. Identified the business units that use the functions and services included in Common Corporate Costs.

The business units that use the functions and services included in Common Corporate Costs are listed in Table 2. The information was provided by Hydro One and confirmed by the service recipients.

Task 5. Distributed Common Corporate Costs (time for labour resources and cost for non-labour and Inergi resources) reflected in BP 2017-2018 for departments identified in Task 1, among the activities identified in Task 2.

The purpose of this task was to distribute the resources (time for labour and costs for non-labour and Inergi) required for each of the functions and services identified in Task 1, among the activities identified in Task 2. In subsequent tasks, the cost of each activity was either directly assigned to one or more business units or allocated using cost drivers.

Labour costs

To distribute budgeted labour costs, Hydro One department managers determined the portion of annual time spent by the personnel under their supervision on each of the activities identified in Task 2. Some managers based their estimates on concurrent time records that they maintain, some conducted interviews with their personnel, and some used their informed judgment. Some of the holding company's labour cost was allocated consistent with previous rate filings. The information provided by the managers was reviewed by Hydro One and Black & Veatch and was found to be reasonable and consistent with prior distributions of resources.

Non-labour costs

Budgeted non-labour costs items were examined and distributed based on direct assignment or allocation; this amount includes non-labour costs of departments in the 2015 Time Study. This included OEB invoices, communications programs, insurance costs and claims, human resources programs, labour relations programs, actuarial consultants and audit fee. The balance of non-labour costs includes items such as training and development, non-specific expenses and general expenses.

Inergi costs

The Common Corporate Costs representing functions and services provided by Inergi were distributed among the activities, based on information provided by Hydro One, assignments and allocations by Hydro One and Black & Veatch, and the application of judgment by Hydro One and Black & Veatch. The approach for each of the functions and services provided by Inergi is described below. Exhibit A describes these services in greater detail.

- **Finance** – Costs were assigned among activities based on estimated portion of total amount paid to Inergi to perform the function. Activities were allocated among the business units based on chosen cost drivers that relate to each activity (e.g., Fixed Asset Accounting activity was allocated on Gross Utility Plant).
- **Human Resources** – Costs were assigned among activities based on estimated effort by Inergi. All activities were allocated among the business units based on headcount.

Task 6. Directly assigned activity costs to business units

The purpose of this task was to assign, among the business units listed in Task 4, the resources (time for labour resources and costs for non-labour and Inergi resources) for each activity listed in Task 2. This task was performed concurrently with Task 5 – Distributed Common Corporate Costs (time for labour resources and cost for non-labour and Inergi resources) reflected in BP 2017-2018 for departments identified in Task 1, among the activities identified in Task 2.

For the activities listed in Task 2, Hydro One's departmental managers distributed the resource costs among one or more business units, based on the business units that caused the costs to be incurred. When possible, all or a portion of costs were assigned to a specific business unit.

Task 7. Any portion of an activity that was not assigned to a specific business unit due to its generalized nature was allocated among business units using cost drivers, as described in Task 7. Assigned cost drivers

As discussed above, the costs of activities were directly assigned to business units when possible. The purpose of this task was to select cost drivers for the portion of costs which were not directly assigned in Task 6.

The principles that Black & Veatch used to assign cost drivers are discussed in Section II.D- Cost Drivers. Black & Veatch selected cost drivers based on applying the principles discussed above, its experience in performing cost allocation studies, consultations with Hydro One as to the nature of each activity, and industry practices and regulatory requirements.

Section II.E Types of Cost Drivers describes the types of cost drivers.

Table 5 summarizes the direct assignments and types of costs drivers used to distribute the Common Corporate Costs among the business units. Amounts include the Inergi charges.

Table 5 - Direct Assignments and Cost Drivers for Common Corporate Costs

TYPE	2017	2018
(% of Total)	%	%
Direct Assignment	62.07%	61.18%
Physical	9.78%	9.87%
Financial	22.59%	23.04%
Internal	5.56%	5.91%
Total	100.00%	100.00%

Task 8. Populated cost drivers

The purpose of this task was to determine the values of each cost driver that are attributable to each business unit in order to distribute the costs of each activity among the business units. The supporting information was provided by Hydro One.

Task 9. Reviewed 2015 Time Study

This Task is discussed in Section V.

Task 10. Computed total common corporate costs for each business unit

The purpose of this task was to distribute the total cost of each activity among the business units. The amount distributed was the sum of the amounts directly assigned in Task 6, and allocations based on the cost drivers identified in Task 7.

For allocations based on the cost drivers, the amount allocated to each business unit was computed by multiplying the activity cost to be allocated by the cost driver value for the business unit.

Task 11. Performed analytical review

The purpose of this task was to compare the results of the distribution of the BP 2017-2018 Common Corporate Costs among the business units to the results in the previous 2014 Review, and to understand the differences.

The proportions of the total cost distributed to each business unit have been reasonably similar over time and differences are explained by additions and removal of departments from the Common Corporate Costs (i.e., the 2015 Review included Bad Debt and Goodwill which is 100% Distribution, for the first time), changes in allocations of time, changes in allocator values and changes in departmental functions and activities.

Task 12. Reviewed Common Corporate Costs Model

The purpose of this task was to review the Common Corporate Costs Model that Hydro One has developed for allocating the Common Corporate Costs, to determine if it properly reflects and models the OEB-approved cost allocation methodology for those costs included in the BP 2017-2018.

Black & Veatch first reviewed Common Corporate Costs Model in connection with our 2008 Review, and has reviewed the model for each of the subsequent reviews performed, including this 2015 Review. The model is updated periodically to reflect organizational changes; Business Plan costs; additions to and deletions of departmental activities; time and cost distributions among activities; assignments of allocators; and cost driver values.

The Common Corporate Costs distributes departmental costs among activities (Task 6) and then distributes the cost of each activity based on direct assignments or cost drivers (Task 10).

Based on Black & Veatch's review, the Common Corporate Costs properly implements the OEB-accepted methodology for distributing the costs of corporate functions and services in the BP 2017-2018, and continues to produce a cause-based allocation of costs.

V. 2015 Time Study

Hydro One employees representing approximately \$115 million of annual labour costs participated in a time study for the four-week period ending June 12, 2015 ("2015 Time Study").

The departments that participated in the 2015 Time Study are identified in Table 3 (designated by Note 1 next to the department name). The responsibilities of these departments are included in Exhibit A.

The personnel in these departments are able to determine with reasonable accuracy, on a current basis, the time they spend on Distribution Operations and Maintenance, Distribution Capital Projects, Transmission Operations and Maintenance and Transmission Capital Projects because the programs and projects on which they work are clearly defined.

A properly performed time study measures cost causation and is widely accepted as a basis for assigning costs. Hydro One personnel administered the 2015 Time Study using the same design and communication material designed by Black & Veatch and utilized in the time study that occurred in 2013. Black & Veatch's responsibilities included reviewing time study results and the consolidation of the results, and confirming the completeness of the time study and its consistency with the study design. The methodology was the same as used in prior time studies conducted by Black & Veatch for Hydro One.

It was not practical to perform a full-year study, but we believe the results for a four-week period are representative of the full-year. To support this judgment, Black & Veatch reviewed the previous Hydro One time studies, which were completed at different times during the year, and found that the results were reasonably similar to the 2015 Time Study results.

Black & Veatch found that the 2015 Time Study was appropriately designed and completed, the results were correctly compiled, and the methodology was the same as for prior Hydro One time studies performed in connection with Black & Veatch's previous cost allocation reviews. Therefore, Black & Veatch concluded that the 2015 Time Study results were a proper basis for assigning the costs of the departments included in the study between Hydro One's Distribution and Transmission business units.

Exhibit A: Functions and Services in Common Corporate Costs

FUNCTIONS AND SERVICES	DESCRIPTION
Hydro One Inc. Corporate Office (HOI)	
President / CEO Office	Leadership of the staff of the Corporation to ensure that their culture and behaviours lead to achievement of its strategic objectives. Develop and update strategy and establishes performance targets to assess progress towards the goals and objectives defined by the strategy.
Chair	Strategic direction, implementation and results for Hydro One Inc. and for each subsidiary.
CFO's Office	Provide Hydro One and subsidiaries with strategic review and approval for all financial and investment decisions. Review policies and procedures, treasury operations and tax planning, financial control and reporting.
Treasurer's Office	Debt and equity issuance, capital structure management and oversight of Finance- Treasury function.
Board of Directors	Strategic direction, implementation and results for Hydro One Inc. and for each subsidiary.
Corporate Secretariat	Provide direction and analysis in areas of: Board and Committee(s); Office of Chair and Board members; Code of Business Conduct; Community Citizenship; Freedom of Information and Privacy, Corporate Archives, Corporate Records, Corporate Secretariat.
General Counsel- VP	Oversee and support Law, Regulatory and Corporate Secretariat General Counsel functions.
Pension Cost	Pension fund contributions.
Donations	Includes donations to support injury prevention, corporate donations (e.g. Salvation Army), energy education, United Way and local community causes. Costs are directly assigned to Shareholder only.
Ombudsman Office	The Ombudsman Office commenced activity following the Initial Public Offering, in order to address complaints escalated from the Customer Service . Prior to that, the Province of Ontario's Ombudsman had authority to investigate issues related to Hydro One customers.
Investor Relations	Investor Relations commenced activity following the Initial Public Offering, in order to communicate with Shareholders and potential investors and address their concerns.
Shared Services	
Real Estate	Manage and acquire rights of way and easements; manage property taxes; manage SLU revenue programs; manage Employee Relocation Program.
Value Growth	Seeks ways to leverage Hydro One's core competencies to increase overall value and drive down average cost to serve. Costs are directly assigned to Shareholder only.

FUNCTIONS AND SERVICES	DESCRIPTION
CFO's Office	
Treasury	Risk management including insurance purchasing; insurance claims settlement; financial risk management; cash & banking operations; debt management-prospectus, debt issuance, borrowing, maintain relationship with shareholders; funds management; investor relations-shareholders, creditors, equity analysts & rating agencies; support business activities; project management.
Corporate Controller	Corporate Accounting & Reporting; Revenue Management; Financial Modeling & Analysis; Accounting Policy; Internal Control; IFRS / US GAAP; Inergi Finance; Bill 198; Corporate Compliance.
Taxation	Meet internal and external tax compliance requirements and reduce overall corporate tax liability through tax planning for current and new businesses, acquisitions and dispositions, special projects, tax compliance (including income tax, HST, and DRC returns for all entities), tax accounting, lobbying for legislative tax changes and government tax audits.
Regulatory Affairs	Coordinate applications with OEB; compliance with OEB orders; design and implement regulatory policy; manage relationship with OEB. Tasks include: cost allocation and rate design for regulated Tx and Dx, especially rate structures and rates for Tx and Dx tariffs; implement approved rates; support transmitters' representative on IESO Technical Panel; manage MV Star to support settlement. Includes: Direct billed OEB costs for Tx and Dx; Direct billed NEB costs for Tx; Costs of Rate Hearings before the OEB for Tx and Dx.
Business Planning and Decision Support	Financial modeling & analysis; corporate planning & reporting; regulatory finance; decision support to the lines of business
Operations	
Distribution Asset Management	Create prioritized, defensible distribution system investment strategies and plans to meet Hydro One's Corporate Strategic Objectives including promoting innovation and automation of our grids consistent with maximum customer value. This includes the Distribution Technology roadmap and smart meter deployment including communications infrastructure.
Planning and Optimization	Coordinate the investment planning and investment approvals processes for projects and programs issued to the lines of business from the Planning Business Unit. The investment plan is developed and maintained through the use of various tools, reports and LoB interaction.
Reliability, Strategies, and Compliance	Promote and facilitate Hydro One's engagement and participation in the development of reliability standards and related IESO Market Rules; Develop, communicate and assist with the implementation of policies,

FUNCTIONS AND SERVICES	DESCRIPTION
	directives, procedures, and processes to ensure an enduring compliance posture with reliability standards.
System Planning	Develop and commit prioritized, defensible transmission development plans, consistent with corporate strategy, to meet government policy, OPA plans, customer needs, regulatory requirements and industry standards. Conduct Regional Infrastructure Planning to meet OEB requirements and to develop regional plans to meet regional supply needs.
Network Connections and Development	Facilitate the connection of new load and generation customers to Hydro One's transmission network, supporting customers' objectives while respecting Hydro One's strategic objectives and resource requirements.
Network Operations	Operates the largest electricity delivery system in Ontario and one of the largest in North America for the needs of the Province of Ontario. Hydro One has a highly skilled and experienced workforce using first-class operating systems located in a state-of-the-art Control Centre. Hydro One is a team working together and safely to ensure Ontario has a safe, reliable supply of electricity.
Transmission Asset Management	Provide asset strategies, investment plans and work definition for the sustainment of the transmission grid to enable safe, reliable, efficient and cost effective delivery in a customer-focused commercial culture that increases enterprise value for our shareholder that provides increased value to our customers.
VP- Planning	Oversees Distribution Asset Management, Transmission Asset Management, Planning and Optimization, Network Connections and Development, System Planning, and Reliability, Strategies, and Compliance.
EVP Office- Operations	Oversight of Operations group.
Outsourcing Services	Manage overall business relationship between Hydro One and Inergi LP.
Strategic Services	Supports the executive team by advancing key strategic initiatives and interfacing with Lines of Business to assist in the implementation of these initiatives, coordinating the development of processes to ensure alignment within the Company and a focus on our key priorities, and providing support to the President and CEO and the Leadership Team.
Information Services	
Corporate Projects	Deliver the projects necessary to maintain and enhance the core services Hydro One provides to its customers across the province. Project delivery is completed by leveraging both internal and external expertise to design and construct using standard and repeatable methods that lead to safe, reliable and cost effective operations of those assets.
Information Technology	Information technology security; Enterprise IT architecture; Service

FUNCTIONS AND SERVICES	DESCRIPTION
	delivery; Technology services; Governance of IT architecture, Business analysis and information management, Project management; Inergi & Telecom services management. Applications; Compliance security; Data services; Information services; IT operations; System architecture.
Security Operations	Incident reporting and security awareness; Threat intelligence gathering; Physical security and asset threat and risk assessments; Investigations; Theft of electricity consultation and detection; Workplace violence prevention and response; Contract security procurement assistance; Overall security and asset protection advice; Security infrastructure Capital and OM&A investment planning and project management.
Customer & Corporate Relations	
Customer Care Services	Service the approximately 1.1 million distribution customers. Improve customer satisfaction through strategic system and process enhancements, effective services contracting, proactive communications and quality programs. Service programs include meter reading, billing, settlements, customer contact handling and collections. Project work includes regulatory compliance initiatives and service enhancements.
Customer Strategy and Conservation	Design and deliver energy conservation and demand management incentive based programs; Leverage Smart Grid investments to provide customer enablement of new technologies for energy management; Co-ordinate Greener Choices program; Provide input to Corporate Strategic Plan and develop recommendations on emerging strategic opportunities.
Customer Program Delivery	Supports Customer Service and Corporate Relations with five year business plans and the associated three year Dx Rate Filings with the OEB. Includes the Credit & Collections team is focused on reducing arrears and bad debt for both active and final-billed accounts, while working with customers on a variety of payment options to increase customer choice and provide more payment flexibility. Also included is the new Conservation and Demand Management team that delivers province-wide programs in order to meet multi-year targets aimed at reducing energy peaks and the overall consumption on the electricity grid.
Key Account Management	Manage relationships with Hydro One's large customers including over 90 Transmission-connected Industrials, 79 LDCs and 33 Transmission-connected Generators, representing almost 70% of Hydro One's revenues. Includes Operating Support; Account Executives; Contract Management; and Customer Programs.
VP Customer Service	Oversees Customer Service group, which has overall accountability for relationship, affordability and value proposition for products and services provided to customers. Includes bill management, major accounts and value-added services (e.g. conservation). Customer Service also responsible for Advanced Distribution System Project and Smart Meters.

FUNCTIONS AND SERVICES	DESCRIPTION
Meter To Bill	Focused on providing clear, accurate, and timely bills to customers. This includes validation of meter reading data, bill calculations, exception handling, retailer transactions, bill creation, bill insertion, and bill issuance.
Corporate Affairs	Support all external and internal communications initiatives. Interact with most other Hydro One departments; special focus on Customer Service. Support major projects including: development of partnership activities; coordinate with external energy agencies (e.g. OPA, IESO), Ministries in Ontario Public Service and internal Hydro One resources. Participate in pre-public consultations with municipalities and First Nations. Support customer strategy, rate strategy, distribution generation strategy; develop working relationships with customers, regulators, shareholder, lenders; labour relations; corporate culture. Includes SVP Customer & Corporate Relations - Oversees the entire Customer Service organization as well as the old Corporate Relations group, including Corporate Affairs, First Nations and Metis Relations and Key Account Management.
First Nations and Métis Relations	Provide First Nations and Métis consultation advice and support; Advise re First Nations and Métis HR strategies; Provide strategic advice to Remotes with respect to First Nations and Métis issues.
Bad Debt and Goodwill	Bad Debt related to Distribution service. Allocated 100% to Distribution.
SVP Customer and Corporate Relations	Oversees VP Customer Service, Key Account Management, Corporate Affairs and First Nations and Métis Relations.
Inergi LP (outsourced services)	
Finance and Accounting Services	Accounts Payable; Accounts Receivable (non-energy); Fixed asset and project cost accounting; general accounting and planning, budgeting and reporting
Human Resources- Pay services	Payroll and related services
Accounts Payable	Invoice processing and payment
People and Culture	
People and Culture	Primarily employee-related services, including administer compensation & benefits programs; decision support for business units; talent management (hiring, succession, development, coaching; high potential employee assessments); recruitment and diversity (diversity programs, grad program, student/co-op, line of business resourcing); data administration; consulting support to LOBs and corporate functions; VP Human Resources.
	Provide full-scale service pertaining to bargaining, Ontario Labour Relations Board hearings, grievance and arbitration hearings, advice and guidance, plus training to all levels of Hydro One management. Involves

FUNCTIONS AND SERVICES	DESCRIPTION
	interaction with 21 unions and 24 collective agreements.
Audit	
Audit	Provides assurance that internal controls continue to operate effectively, identification and recommendations for areas where controls can break down or need improvement to meet corporate objectives. This includes the VP Chief Risk Officer.
General Counsel & Secretariat	
General Counsel & Secretariat	Provides legal advice to all business units, acting as an internal “law firm” for the Corporation on most aspects of law affecting it, and is also well acquainted with day- to-day requirements of the Corporation.
Telecom Services	
Telecom Services	Provides telecommunications infrastructure across the Province, including both voice and data. Links staff and business applications at Trinity, Richview TS, Markham and London Call Centers, Mill Creek data centre, 125 field offices (400 total sites including stations) and customers via Call Centres and Web sites.
VP Chief Risk Officer	
VP Chief Risk Officer	The VP Chief Risk Office group creates an enterprise-wide comprehensive and uniform approach to anticipate, identify, prioritize, measure, treat and report on key business risks impacting our organization. It puts in place the policies, common processes, competencies, accountabilities, reporting and enabling technology to execute that approach successfully.

Exhibit B: Types of Cost Drivers

TYPE	DESCRIPTION	EXAMPLES
External Cost Drivers		
Physical	Physical units; usually objectively determinate but often require estimates	Headcount (of employees), number of workstations, invoices to vendors
Financial	Financial information from accounting or management reports, budgets or projections	Capital expenditures, Net utility plant, Program Project Costs, Total capital, Total revenue
Blended	Weighted combinations of other drivers, used when one or more drives are applicable and none is clearly preferable; weights determined by judgment	Non-energy Rev_Assets Blend = 50% weight for Non-Energy Revenue and 50% weight for Assets
Driver xBusiness Unit	Any driver may be modified by excluding one or more business units to which the activity does not apply	Cost driver for Business Process Improvements is Operating Maintenance Capital, but Telecom and Remotes business units do not use the shared service, therefore activity cost driver is called Oper Maint Cap xTxR (i.e., Gross Utility Plant excluding Telecom and Remotes)
Internal Cost Drivers		
All Internal Cost Drivers	Use the result of previous allocations as the basis for further allocations	Cost of general departmental expenses might be allocated in the same proportion as the specifically assigned departmental activities