

1 OEB STAFF INTERROGATORY 1

2 1.0 Revenue Requirement, Operating Costs and Capital Spending

3 1.3 Is the IESO's Operating Costs budget of \$191.4 million for Fiscal Year 2017
4 appropriate?

5 1.3 Staff – 1

6 INTERROGATORY

7 Reference: Exhibit A-2-2, p. 11 & Exhibit C-2-1, attachment 2

8 Preamble:

9 At Exhibit A-2-2, p. 11 the IESO states:

10 *The 2017 proposed operating expenses are \$9.3 million above the 2016 budget expenses as*
11 *per the 2016-2018 Business Plan. The higher operating expenses are primarily due to the*
12 *impact of Market Renewal and higher pension and other post-employment expenses.*

13 At Exhibit C-2-1, attachment 2, the IESO states:

14 Planned operating expenses in 2017 have increased by approximately \$9.8 million
15 when compared with 2016 actual operating expenses. The increase is due to a
16 combination of the addition of the Market Renewal Program and annual
17 inflationary pressures.

18 Questions:

- 19 a) Please confirm how much the IESO fees are increasing - \$9.3 million or \$9.8 million? Please
20 explain the discrepancy.
- 21 b) Please explain what is meant by annual inflationary increases, as stated at Exhibit
22 C-2-1, attachment 2, particularly in light of the IESO's fee having declined in 2016. What is the
23 estimated % annual inflationary impact? What is it based on?
- 24 c) Exhibit C-2-1, attachment 2 provides different cost drivers for the increased operating
25 expenses than at Exhibit A-2-2, p. 11. Please fully explain and quantify the cost drivers.
- 26 d) Please explain 'corporate adjustments' in the Operating Programs Table at Exhibit
27 C-2-1, attachment 3.

1 RESPONSE

- 2 a) The discrepancy results from, in one case, comparing 2017 proposed budget to 2016 budget,
3 and in the second case, comparing 2017 proposed budget to 2016 actuals as described below.

4 At Exhibit A-2-2, p. 11 the IESO states:

5 *The 2017 proposed operating expenses are \$9.3 million above the 2016 budget expenses as*
6 *per the 2016-2018 Business Plan. The higher operating expenses are primarily due to the*
7 *impact of Market Renewal and higher pension and other post-employment expenses.*

8 This statement is comparing the 2017 proposed budget of \$191.4 million to the 2016 Budget
9 of \$182.1 million and the 2017 Budget is \$9.3 million higher than the 2016 Budget.

10 At Exhibit C-2-1, attachment 2, the IESO states:

11 *Planned operating expenses in 2017 have increased by approximately \$9.8 million when*
12 *compared with 2016 actual operating expenses. The increase is due to a combination of the*
13 *addition of the Market Renewal Program and annual inflationary pressures.*

14 This statement is comparing the 2017 proposed budget of \$191.4 million to the 2016 Actuals
15 of \$181.6 million and the 2017 Budget is \$9.8 million higher than the 2016 Actuals.

16

- 17 b) 'Annual inflationary pressures' refers to the IESO's collective agreements and contracts
18 related to general operational spending such as rent and utilities that usually increase on a
19 year-over-year basis. The estimated annual inflationary impact is 1% - 2% based on the
20 rates embedded in our various supplier and employee contracts.

21

- 22 c) The table on page 13 of Exhibit A-2-2 compares the 2017 Budget against the 2016 Budget
23 while the table in Exhibit C-2-1 Attachment 2 compares the 2017 Budget against the 2016
24 actual expenses. In both cases, the primary driver of increased costs in the Market Renewal
25 Program. Other cost drivers include anticipated higher pension and other post-employment
26 benefits. Please also see b) above.

27

28 For the cost drivers for the 2016 Actuals vs 2017 Budget, please refer to the response to SEC
29 Interrogatory 10 at Exhibit I, Tab 1.3, Schedule 7.10.

30

- 31 d) The Corporate Adjustments in C-2-1 Attachment 3 contain items that are not allocated to the
32 operating divisions and are tracked separately on a total organization basis such as
33 amortization, interest and the unrecovered PSAB transition items.

AMPCO INTERROGATORY 7

1.0 Revenue Requirement, Operating Costs and Capital Spending

Issue 1.3

Is the IESO's Operating Costs budget of \$191.4 million for Fiscal Year 2017 appropriate?

INTERROGATORY

Reference: B-3-1 Page 1

a) Please provide Table 1 for 2015.

RESPONSE

(\$ Millions)	2015		
	Actual	Budget	Variance
Revenues	196.9	185.1	11.8
Costs			
Operating Costs	165.4	164.9	0.5
Amortization	17.9	18.7	(0.8)
Interest	1.6	1.3	0.3
Total Costs	184.9	184.9	-
Operating Surplus/(Deficit)	12.0	0.2	11.8
Accumulated Operating Surplus (opening balance)	7.6	-	7.6
Rebates to Market Participants	(9.6)	-	(9.6)
Accumulated Operating Surplus (closing balance)	10.0	-	9.8

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1 **BOMA INTERROGATORY 14**

2 Issue 1.1

3 **INTERROGATORY**

4 Reference: Issues 1.1, 1.2, 1.3; Ibid; Appendix 2, p25; Key Risks/Mitigation Plans

5 Please provide the mitigation plans to address each of the nine key risks to the Business Plan,
 6 listed on p26.

7 **RESPONSE**

8 The mitigation plans to address the nine key risks are listed below:

Key Risk	Mitigation Plan
<p>The breadth and pace of change of Ontario's evolving energy environment challenges the IESO's ability to maintain grid reliability and efficiently integrate new entrants and technologies into the operation of the grid</p>	<ul style="list-style-type: none"> • Continuation of the Operations Readiness Initiative Program. <ul style="list-style-type: none"> ○ Interchange Enhancements ○ Operating Plan Redesign ○ Human Performance Improvement ○ OLLD Roll-out ○ SPS Automation ○ Process Improvements • Evolution of Demand Forecasting through continuous improvements of the model and the initiation of the Resolve Forecast Input Issues Project. • Evolution of Situational Awareness through Wide Area Monitoring, PMU Integration and LDC Monitoring. • Participating in selective NERC task forces such as ERSTF. • Continued vigilance and assessment, as necessary, around new and emerging interdependencies such as fuel security of the generation fleet. • Continued evolution of the Emerging Technologies group within M&SO • Ongoing evolution of adequacy / security methodologies to ensure they are still effective given the evolution of the grid.

Key Risk	Mitigation Plan
<p>Grid requirements for regulation, voltage control and flexibility lead to challenges in maintaining grid reliability and achieving efficient market operations</p>	<ul style="list-style-type: none"> • Improved operability of the power system in three key areas: <ul style="list-style-type: none"> ○ Regulation ○ Voltage Control ○ Flexibility • M&SO will complete the Regulation RFP and select additional amounts of Regulation Service. • M&SO will work with Power System Planning to identify and direct implementation of additional voltage control solutions. • M&SO continue to evolve and improve the visibility of current control actions and work with the Markets group to determine and implement future flexibility mechanisms. • Specific targets will be established in 2017 for each of these items.
<p>A significant cyber security event occurs that disrupts the operation of the IESO</p>	<ul style="list-style-type: none"> • Implementing the Identity Access Management (IAM) Project starting in Q3 2016 for completion in 2018 – Q3 2018 • Implementation of the road map will be completed in 2017 • As a result of the assessment by Mandiant the Security program remediation Service (SPRS) Project will implement the following subprojects for completion by the end of 2017: <ul style="list-style-type: none"> ○ Security event monitoring ○ Incident management ○ Security organization enhancement ○ Metric and reporting ○ Vulnerability management ○ Security risk management program
<p>Current workforce capacity and allocation does not support the IESO's ability to effectively execute its mission, strategy and expanding responsibilities</p>	<ul style="list-style-type: none"> • Develop resource plans to most effectively utilize current resources and manage requirements to support incremental initiatives • Review of existing processes and products to determine critical deliverables allowing redeployment of staff • Focus available resources on those elements of the new strategy, vision, and mission that are most critical to the success of the company • Reduce support area staffing • Monitor and manage work / resource prioritization to ensure available resources are focused on timely completion of high priority products and initiatives

Key Risk	Mitigation Plan
	<ul style="list-style-type: none"> • Maintain a portfolio of potential candidates for key positions through developmental and rotational programs for all staff levels • Pursue key skill and on-the-job training for existing staff to ensure adequate diversity of skill-sets and experience within the existing resource pool • Use external resources and temporary staff where cost effective to provide incremental value
<p>Market rule and reliability standard violations significantly impact markets and reliability</p>	<ul style="list-style-type: none"> • Identify market rules and reliability standards where breaches would have most significant impact and take appropriate MACD enforcement actions in response to discovery of (or reported) alleged violations using existing powers and rules. • Create and maintain flexible access to diverse skill set to most efficiently address workload peaks and the wide variety of technical subject matter of enforcement work. • Conduct audits to better detect violations and assess risk areas to guide enforcement activities. • Finalize and provide through the corporate Interpret Market Rule Process, interpretations and interpretation bulletins for market rules to supplement enforcement actions.
<p>The volume, complexity, and length of publically visible, financially material contracts that are under IESO's management exposes the organization to contract compliance risks and litigation leading to the erosion of public confidence</p>	<ul style="list-style-type: none"> • Adequately resource teams responsible for the management of contracts and contract disbursements ensuring there is no failure to perform any material covenant or obligation, nor any inaccurate or untimely financial settlement • Establish a dedicated position for contract compliance monitoring that will centralize contract audit activities for all contract streams. • Work with IESO's Internal Audit to prioritize contract risk areas and develop compliance monitoring procedures to address those risks • Establish organized group training sessions and ensure individual participation in courses, seminars, conferences, and other activities to enhance the group's knowledge of leading contract risk compliance practices. • Execute a project that will develop the infrastructure needed by Commercial Services to adhere to the IESO's contract settlement obligations and provide data for its contract settlements

Key Risk	Mitigation Plan
	<ul style="list-style-type: none"> • Explore potential remedies to address settlement risks with Distribution Connected resources such as establishing a Master Service Agreement with the LDCs
<p>Insufficient support from key stakeholders impedes the IESO's ability to effectively pursue key initiatives</p>	<p><u>Stakeholder & Public Affairs</u></p> <ul style="list-style-type: none"> • Continued emphasis on stakeholder engagement and adherence to Engagement Policies and Principles • Action Plans to be developed in response to the Stakeholder Satisfaction Survey <p><u>PLIRRA</u></p> <ul style="list-style-type: none"> • Participate in and communicate with communities and stakeholders through webinars, one-on-one meetings, consultations, conferences, meetings and assemblies to demonstrate the benefits of key initiatives, maintain continuous engagement and establish key points of contact • Maintain and continue to pro-actively and meaningfully engage with Indigenous communities through appropriate processes and mechanisms • Engage and obtain input from LDCs in the region, the local transmitter, municipalities, community representatives, Indigenous communities, stakeholders and the Local Advisory Committee during the development of the Integrated Resource Regional Plans • Engage and obtain input from government and key stakeholders in the development of the Provincial Plan <p><u>Conservation</u></p> <ul style="list-style-type: none"> • Develop Multi-site Consumer Pay-for-Performance Program and Whole Home Pilot program. • Implement new processes to improve communications and engagement activities with stakeholders • Complete mid-term review of Conservation First Framework and Industrial Accelerator Program as required by Ministerial direction including open stakeholder engagement process allowing the opportunity for stakeholders to provide feedback on successes and challenges associated with the framework as well as possible solutions <p><u>Market Renewal Program Team</u></p>

Key Risk	Mitigation Plan
	<ul style="list-style-type: none"> • Internal and external stakeholder information sessions on the development of a Market Renewal Program including benefits case
<p>Failure of critical Control Room tools challenges our ability to effectively manage grid reliability and market operations</p>	<ul style="list-style-type: none"> • Working with IT, define specific service levels for key IT services, interact with Control Room Support on a weekly basis to manage any concerns that are escalating and meet monthly with IT Management to review performance, problem management and significant IT system incidents to determine specific actions and remediation plans required. • Operation and IT&S jointly working on an initiative related to the Key Business Service that is necessary to effectively operate the grid and the market. The initiative will: <ul style="list-style-type: none"> ○ Identify the Key Business Services ○ Identify the solutions necessary to support the services, ○ Specify the Service Level Requirements, ○ Establish measures for collecting information ○ Develop a roadmap to address gaps between the Service Level Requirement and the level of service being provided
<p>Lower than desired employee engagement impedes the efficient and effective execution of initiatives and priorities</p>	<p>To address areas raised in the employee engagement survey that are most in need of improvement, each business unit developed action plans to support the organization-wide action plan. Specific areas of focus include:</p> <ul style="list-style-type: none"> • implement a robust and fully integrated performance management process including individual employee development plans and talent reviews • Enhance visibility to the IESO’s Executive Leadership Team through the creation and implementation of an Internal Communication Plan • Commitment from management at all levels to recognize people contributing to the IESO’s strategy, vision, mission and values • Increase cross-functional awareness

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1 BOMA INTERROGATORY 37

2 Issue 1.3

3 INTERROGATORY

4 Reference: Exhibit B, Tab 3, Schedule 1, p2

5 (a) Please explain what is meant by embedded demand. Please show the calculations which
6 underpin the statements made on p2. Please provide a breakdown of revenues from
7 domestic, deemed export demand, and embedded demand.

8 (b) Please explain the variation in operating costs relative to budget and amortization relative to
9 budget. In both cases, what items were it responsible for?

10 RESPONSE

11 (a) Embedded demand is another phrase for embedded generation as embedded generation is
12 consumed within the territory of the LDC it is generated in.

13 A breakdown of the 2016 revenue by domestic, including embedded generation, and export
14 is as follows:

2016 Revenue (\$ million)	Domestic incl. Embedded Generation	Export
	171.89	17.55

15
16 (b) The lower than budget variance in the 2016 actual vs budget operating costs of (\$3.2) million
17 is due primarily to reduced professional and consulting expenses related to procurement
18 and contract management programs. The higher than budget variance in the 2016 actual vs
19 budget amortization of \$2.1 million is primarily due to the earlier timing in asset additions.

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1 BOMA INTERROGATORY 38

2 Issues 1.3

3 INTERROGATORY

4 Reference: *Ibid*

5 (a) Please provide:

6 (i) the number of full-time positions available from the government directive to terminate
7 certain renewable energy procurements;

8 (ii) the number of positions currently vacant;

9 (iii) when will these vacant positions be filled through the Market Renewal Project or
10 otherwise;

11 (iv) what has been the average number of FTEs vacant in the IESO in each of the last three
12 years.

13 (b) What is the proposed compensation (salary and benefits) budget for 2017, 2018?

14 RESPONSE

15 (a) In response:

16 (i) As a result of the conclusion of renewable procurement initiatives such as the Large
17 Renewable Procurement II (LRPII) program, four positions have been redeployed of which
18 three were a result of LRPII.

19 (ii) There is currently one vacancy.

20 (iii) This role is anticipated to be filled later this year or early next.

21 (iv) Vacancies, as represented by an annual average number of FTEs, in each of the last three
22 years (2014, 2015 and 2016) were 5, 15 and 23, respectively.

23 (b) Please refer to page 13 of Exhibit A-2-2.

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1 ENERGY PROBE INTERROGATORY 2

2 Issue 1.3

3 INTERROGATORY

4 References: EB-2015-0275 Exhibit A-2-2, Business Plan Pages 12-13; EB-2015-0275 Exhibit I Tab
5 1.0 Schedule 5.03 ENERGY PROBE 3

6 Preamble: In IESO Business Plan 2016 the IESO stated:

7 *In 2017 and 2018, the IESO is planning to deliver further reductions in operating*
8 *expenditures and resources as a result of various projects initiated in 2016. Operating*
9 *expenditures compared to 2016 are decreased by two percent by the end of the planning*
10 *cycle.*

- 11 a) Please reproduce the Table provided in the second reference (IR Response EP 3) and
12 provide columns showing the revised actuals and projection for core operating expenses
13 and Total Expenses 2015-2018 and add a column with the projection for 2019.
- 14 b) Discuss for each component cost changes relative to prior year.
- 15 c) Compute the percentage change relative to the 2 percent cited in last year's evidence.
- 16 d) Specifically address the drivers for changes in core program compensation and benefits and
17 relate this to the changes in FTEs.

18 RESPONSE

- 19 a) Please see below for the Table provided in the second reference (IR Response EP 3, EB-2015-
20 0275) as well as columns showing the actuals for 2015 – 2016 and the budget for 2017-19 as
21 was provided in the IESO's 2017-2019 Business Plan for core operating expenses and total
22 IESO expenses and the percentage change from prior year. The 2016 actuals when compared
23 to the 2015 actuals show savings of 2%. There is an increase in operating costs from 2017-19
24 primarily due to the Market Renewal Program as shown in the 2017-2019 Business Plan.

Budget (\$ Millions)	2015	2016	2017	2018	2019
	Actuals	Actuals	Budget	Budget	Budget
Core Operating Expenses					
Compensation & Benefits	108.9	109.5	109.2	110.7	113.8
Professional & Consulting Fees	21.6	16.8	17.8	17.7	17.7
Operating & Administration	34.9	34.3	35.4	35.6	35.9
Amortization	17.9	19.6	18.4	19.6	19.0
Interest	1.6	1.3	(1.4)	(1.5)	(3.0)
Total	184.9	181.6	179.4	182.1	183.4
Market Renewal			12.0	14.0	6.0
Total Expenses	184.9	181.6	191.4	196.1	189.4
% Change		-2%	5%	2%	-3%

- 1
- 2 b) Please see section (d) below for the changes in compensation and benefits.
- 3 Other increases in 2017 operating expenses include the impact of foreign exchange rates and
- 4 higher OEB fees, offset by interest income.
- 5
- 6 c) Please refer to the response to part (a) above.
- 7
- 8 d) Compensation and Benefits – Expense increases in each year include annual compensation
- 9 escalations according to current collective agreements and expected estimates of annual
- 10 pension and post-retirement expenses. The IESO has made changes, including revisions to
- 11 management pension and compensation, as well as the negotiated contracts with its unions,
- 12 in order to manage the overall costs in the longer term. For the number of FTEs in each year,
- 13 please refer to the response to Energy Probe Interrogatory 4 part (a) at Exhibit I, Tab 1.4,
- 14 Schedule 5.04.

1 ENERGY PROBE INTERROGATORY 3

2 INTERROGATORY

3 References: Exhibit A-2-2, page 13

4 Preamble: The cost of IESO's Total Core Operations grows from \$182.1 million in 2016 to \$183.4
5 million in 2018, which includes an increase in operating and administration costs. In its 2016
6 fees application (EB-2015-0275), the two agencies noted that the merger would create sustained
7 "efficiencies".

8 a) Can IESO breakdown any productivity savings that have resulted as a result of the merger,
9 given that the cost of its core operations are increasing 2016-2019?

10 b) Can IESO provide any detail on whether there is any sustained decrease in operating costs as
11 a result of the government suspending the LRP II procurement?

12 RESPONSE

13 a) Below are estimates of merger savings that resulted in the IESO's commitment of net \$5.3
14 million merger synergies. The synergy savings realized in 2015 through the merger are
15 sustained over the 2017-2019 planning period as they are embedded in the lower budget
16 base for each year.

Description of Synergy Savings , \$ millions	2015
Compensation & Benefits	3.19
Single Board of Directors	0.60
Office Space Reduction	1.32
Rationalization of systems and services	0.21
	5.32

17 b) As a result of the government's suspension of the LRP II, the IESO planned to realize \$0.5M
18 in professional and consulting savings related to this program in the 2017 budget. These
19 savings assist in offsetting some of the budget pressures faced by the organization, in
20 delivering on its various priorities. Please also refer to the response to OEB Staff
21 Interrogatory 2 part (g) at Exhibit I, Tab 1.4, Schedule 1.02.

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1 ENERGY PROBE INTERROGATORY 23

2 Issue 1.3

3 INTERROGATORY

4 References: Exhibit A-2-2, page 17

5 Preamble: IESO is currently undertaking a mid-term review of conservation activities.

6 a) Can IESO provide any drafts or documents related to the mid-term review?

7 RESPONSE

8 a) Navigant Consulting is conducting the Conservation Framework Mid-Term Review study
9 on behalf of the IESO. Ipsos will be supporting by conducting the market research work
10 planned for the Mid-Term Review. The Conservation Framework Mid-Term Review is also
11 supported by Mid-Term Review Advisory Group.

12 The following topics are being explored through current state summaries of the Mid-term
13 Review: customer and market engagement and satisfaction, definition of conservation and
14 demand management (CDM), collaboration, governance and operations, planning
15 integration, climate change, budgets, targets and cost-effectiveness as well as non-energy
16 impacts.

17 The full list of external members who are participating in the Mid-Term Review Advisory
18 Group is shown below and can be found on the IESO's active stakeholder engagement
19 website for the Conservation First Mid-Term Review¹:

Conservation Framework: Mid-Term Review Advisory Group Membership	
Consumers (5)	
Housing Services Corp.	Parry, Myfanwy
LaFarge	Nuvoloni, Walter
Loblaw	Schembri, Mark

¹ <http://www.ieso.ca/sector-participants/engagement-initiatives/engagements/conservation-framework-mid-term-review>

University Health Network	Rubinstein, Ed
CBRE Limited	Abraha, Amha
Local Distribution Companies (5)	
Customer First Inc.	Barker, Chris
Entegrus Powerlines Inc.	Rodd, Margaret
Hydro One	Katsuras, George
PowerStream Inc.	Bond, Raegan
Toronto Hydro-Electric System	Marchant, Michael
Electricity Service Providers/Consultants (2)	
CLEAResult Canada Inc.	Kalyanraman, Guru
Nest Labs	Calin, Iuliana
IESO	
Chair	Katherine Sparkes

1
2 The Terms of Reference for the Mid-term Review Advisory Group are provided below:

3 **Conservation Framework: Mid-term Review Advisory Group**

4 **Overview and Context**

5 The IESO’s Conservation Framework: Mid-Term Review engagement initiative will
6 work with stakeholders and communities to conduct a combined mid-term review of the
7 2015 to 2020 Conservation First Framework (CFF) and Industrial Accelerator Program
8 (IAP) – referred to here as the conservation framework. A third party consultant,
9 through a competitive procurement process, will support the IESO with completion of
10 the mid-term review. The review will focus on targets, budgets, progress, lessons
11 learned (on cost recovery, performance incentive mechanisms and CDM contribution to
12 regional planning), and alignment with Ontario’s Climate Change Action Plan (CCAP),
13 for CFF and IAP. The results of the review will inform potential approaches to achieving

1 objectives of the conservation framework for the remainder of the term to 2020 and
2 beyond.

3 **Terms of Reference**

4 This Conservation Framework: Mid-Term Review Advisory Group will provide advice
5 to the IESO for the completion of the mid-term review. The Mid-term Review Advisory
6 Group will complement input provided through a public engagement process by
7 providing a dedicated, consistent group of interested parties to provide input to the
8 review.

9 **Objectives and Scope**

10 The Conservation Framework: Mid-Term Review Advisory Group (the “Advisory
11 Group”) will provide comments and advice to inform the IESO in the completion of the
12 mid-term review. Comments and advice will be collected at Advisory Group meetings
13 and in writing on specific items and topics.

14 Specifically, the Advisory Group will review and provide comment on the study plan,
15 study topics, and draft report(s) for the mid-term review study.

16 Written feedback provided by Advisory Group members will be compiled on the IESO
17 Conservation Framework: Mid-Term Review engagement webpage. The IESO will
18 respond to this feedback to advise how the views of stakeholders and other interested
19 parties have been considered and incorporated. The final content of the mid-term review
20 report will be determined by the IESO.

21 In the context of the engagement, the Advisory Group’s activities will be integrated with
22 the broader engagement; as the study plan and key topics for the final report are
23 discussed and advanced in the Advisory Group setting, they will then be brought
24 forward for discussion with all stakeholders through the broader engagement initiative.

25 **Composition of the Advisory Group**

26 Members are expected to be able to commit time and resources to support the group, in
27 order to provide feedback, attend scheduled meetings, and review
28 information/materials (some of which may be communicated between meetings).
29 Delegates are not encouraged. A tentative meeting schedule for 2017 is provided in
30 Appendix A.

31 The IESO will seek a balance of different types of stakeholders on the Advisory Group to
32 ensure feedback from different points of view.

1 Direct meeting participation will be limited to members. Membership in the Advisory
2 Group will be limited to 12 to 14 participants, selected based upon their experience and
3 background. Membership will be balanced to provide representation from different
4 regions of Ontario and different interested groups.

5 The meeting will be open to registered observers who have been invited and/or selected
6 by the IESO and limited to one individual per organization. Delegates are not
7 encouraged. Observers will be invited to provide comment or ask questions at the
8 discretion of the Advisory Group's Chair.

9 The Advisory Group will consist of the following representation within the group:

- 10 • five consumers (representing a mix of sectors, and distribution/transmission
11 connected customers)
- 12 • five LDCs (where possible representing different size utilities and different
13 regions and progress towards CFF targets)
- 14 • two consultants, service providers/delivery agents and/or manufacturers that are
15 engaged in CDM
- 16 • IESO (Chair plus staff support)

17
18 The Advisory Group may also include observers from:

- 19 • natural gas utilities
- 20 • industry/customer associations
- 21 • Environmental Commissioner's Office
- 22 • Ontario Energy Board
- 23 • Ministry of Energy

24 **Organization and Administration of Meetings**

- 26 a) IESO staff will chair the meetings. The Chair may act as the facilitator for the
27 meeting, or a separate independent facilitator may be used. The Chair or
28 facilitator will be responsible for the role of a time keeper.
- 29 b) The Chair will provide all meeting agendas and support material at least two
30 business days in advance of the meeting dates to the Mid-term Review Advisory
31 Group members.
- 32 c) All meeting materials including meeting notes will be recorded and posted on
33 the IESO Conservation Framework Mid-Term Review engagement webpage.

- 1 d) Attendance may be in person, via teleconference or webcast. In person
- 2 attendance is strongly preferred and encouraged.
- 3 e) Monthly meetings are planned for the period of Q1 2017-Q1 2018 (a mix of in-
- 4 person at the IESO offices, 120 Adelaide St. W and teleconference meetings are
- 5 anticipated depending on the number of agenda items). Additional, ad-hoc
- 6 teleconference discussions may be added on an as needed basis as the Mid-term
- 7 review study is executed.
- 8 f) The IESO will coordinate attendance through on-line meeting invitations. These
- 9 invitations are intended for members and registered observers only and are not
- 10 to be forwarded to any other parties without the consent of the Advisory Group
- 11 Chair.

12 The Foreword to the Achievable Potential Study is provided below (Note this is a
 13 separate study that serves as an input into the Mid-term Review Study.)

14 **Foreword to the 2016 Achievable Potential Study**

15 **What is the Achievable Potential Study, why has it been undertaken and what will it**
 16 **be used for?**

17 Over the past decade, Ontario has established itself as a leading jurisdiction in energy
 18 efficiency. This leadership has been accomplished through the integration of
 19 conservation and demand management (CDM) into long term energy planning, the
 20 achievement of some of North America’s most ambitious energy efficiency targets,
 21 investment in energy efficiency innovation, cost effective program delivery, and
 22 rigorous evaluation, measurement and verification (EMV) of program results. On March
 23 31, 2014, the Government of Ontario renewed its commitment to CDM with a direction
 24 from the Minister of Energy that mandated the IESO to work with Ontario’s local
 25 distribution companies (LDCs) to deliver 7 terawatt-hours (TWh) of electricity savings
 26 by the end of 2020 (the Conservation First Framework or “CFF”). This direction also
 27 requires the IESO to conduct an achievable potential study (APS) for electricity
 28 efficiency in Ontario every three years, with the first study to be completed in 2016. The
 29 purpose of this study – as stated in the direction – is to inform electricity efficiency
 30 planning and programs. The APS results also factor into the Energy Conservation
 31 Agreement (ECA) that governs the relationship between the IESO and LDCs for the
 32 delivery of conservation programs within the CFF. The APS factors into the ECA in two
 33 key areas: 1) the potential mid-term financial incentive available to LDCs is based on
 34 LDC achievement of the lesser of 50 per cent of their CFF target (a portion of the total 7
 35 TWh provincial target) or 50 per cent of the achievable potential in their service area per

1 the APS; and 2) the APS is one of several inputs to the mid-term review of the CFF to be
2 completed by June 1, 2018 (discussed below).

3 The APS study consists of two underlying components: a behind-the-meter generation
4 study, and an energy efficiency study that includes an assessment of both short-term
5 (Conservation First Framework 2015-2020) and long-term (2015-2035) energy savings
6 potential. These components are set out in the three documents that accompany this
7 foreword.

8 **Development of the Study**

9 A number of key parties were involved in the APS. The IESO, as the agency responsible
10 for the province's electricity and conservation planning, led the development of the APS.
11 As front-line partners in the delivery of conservation programming, Ontario's local
12 distribution companies (LDCs) have a key stake in the outcomes of the study. As such,
13 an LDC Working Group was created, comprising 12 LDC representatives that provided
14 valuable input into the scope, methodology, and execution of the study. The LDC
15 Working Group also included observers from the Ministry of Energy, the Ontario
16 Energy Board, the Electricity Distributors Association, Union Gas, Enbridge Gas, and the
17 Environmental Commissioner's Office. The LDC Working Group, together with the
18 IESO, participated in the selection – via competitive procurement – of two independent
19 third-party consultants tasked to undertake the energy efficiency and behind-the-meter
20 components of the study. The IESO also sought advice from an independent, third party
21 panel of experts made up of three professionals from outside of Ontario with significant
22 experience with similar studies in other jurisdictions. The IESO carefully considered
23 input from the LDC Working Group and worked to reach agreement with members on
24 study method and assumptions wherever possible. LDC Working Group input on
25 matters such as measure savings assumptions and applicability, program design
26 elements, and customer adoption rates impacted the final APS results. Where there were
27 differing perspectives regarding methodology and assumptions, the IESO looked to the
28 advice of the independent expert panel and third-party consultants for guidance. This
29 inclusive and collaborative process brought greater transparency to the design,
30 methodology, and assumptions that were used for this study.

31 The 2016 APS was developed from the bottom-up for each LDC, using data provided in
32 large part by LDCs themselves - allowing for results with a greater level of local
33 resolution than has been available in previous studies of achievable potential in Ontario.
34 While Ontario's electricity market is unique, best practices outside of Ontario used to
35 model electricity savings were considered and incorporated, accomplishing a balance of

1 meeting industry-wide standards while accommodating distinct features and data
2 found in Ontario.

3 **Summary of APS Results**

4 The study has estimated that, within the Conservation First Framework (CFF) timeframe
5 (2015 – 2020) and budget (\$1.8 billion plus approximately \$0.4 billion from the 2011-2014
6 legacy framework that funded the 2015 transition year), there is approximately 7.4 TWh
7 of achievable electricity savings in Ontario. While the results indicate that the province-
8 wide CFF target of 7 TWh is achievable, the study reveals that some LDCs may face
9 challenges achieving their individual targets within existing budgets and other LDCs
10 have the potential to surpass their individual targets. The potential LDC-level challenges
11 revealed by the APS may be addressed in part by the flexibility built into the CFF
12 framework. Many LDCs have already exercised this flexibility through actions such as
13 collaboration with other LDCs and the development of innovative new local programs
14 and pilot programs. The APS results can provide LDCs with additional insights to
15 achieve the goals of the CFF.

16 **APS: An Input to the Conservation First Framework Mid-term Review**

17 The APS will be one of several inputs into the mid-term review of the Conservation First
18 Framework which the IESO is required by direction of the Minister of Energy to
19 complete by June 1, 2018. The mid-term review will focus on the overall 7 TWh target
20 and the allocation of budgets and targets amongst LDCs, lessons learned regarding LDC
21 funding models, customer needs and satisfaction, and conservation integration with
22 regional planning. In addition to the APS results, the review will consider inputs such as
23 stakeholder consultation, lessons learned through EMV, and an analysis of CFF 2015 to
24 2017 results and expenditures. IESO will publish a stakeholder engagement plan for the
25 mid-term review in the coming months to provide all interested stakeholders with
26 information about how they can provide input into the review. The APS can also serve
27 as a valuable resource for the design and delivery of energy efficiency programs by
28 LDCs and others, as well as a key input to regional and long-term energy planning.

29 **Acknowledgements**

30 The IESO would like to thank all those who contributed to this report and in particular
31 the members of the Achievable Potential Study Working Group for their time and
32 interest in the study.

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1 OSEA INTERROGATORY 1

2
3 1.0 Revenue Requirement, Operating Costs and Capital Spending

4 Issue 1.3

5 Is the IESO's Operating Costs budget of \$191.4 million for Fiscal Year 2017 appropriate?

6 INTERROGATORY

7 Reference: Exhibit A, Tab 2, Schedule 2, Page 17 of 31

8 *Based on preliminary unverified results, as of Q3 2016, LDCs have collectively achieved*
9 *23 percent of the 2020 provincial Conservation First Framework target, or 1.63 TWh of*
10 *the 7 TWh target. Additionally, the Industrial Accelerator Program has achieved 0.171*
11 *TWh of the 1.7 TWh target, or 10 percent of the 2020 target. This number is expected to*
12 *increase as more projects are verified and implemented.*

- 13 a) Please identify preliminary findings and recommendations from the Conservation First
14 Framework mid-term review that address how IESO will be able to meet the 2020 targets
15 given the current progress to-date.
- 16 b) Please provide a copy of any reports prepared for the Achievable Potential Study.
- 17 c) How many TWhs are installed but not verified?
- 18 d) How many TWhs are in the process of being implemented?
- 19 e) How does IESO plan to meet the remaining TWh targets?

20 RESPONSE

- 21 a) Please refer to the response to Energy Probe Interrogatory 23 at Exhibit I, Tab 1.3, Schedule
22 5.23.
- 23 b) Please refer to the response to Energy Probe Interrogatory 23 at Exhibit I, Tab 1.3, Schedule
24 5.23.
- 25 c) Verified savings from 2015 and 2016 total 3,252 GWh and 430 MW. Total preliminary
26 program savings results in 2017 to the end of Q2 indicate 135 gigawatt-hours (GWh) and 13
27 megawatts (MW) of net reported incremental 2020 annual energy and peak demand savings
28 were achieved from LDC delivered and Non-LDC delivered programs.

Filed: September 12, 2017

EB-2017-0150

Exhibit I

Tab 1.3

Schedule 11.01 OSEA 1

Page 2 of 2

- 29 d) Projections for target achievement are contained within each LDCs CDM Plan. The current
30 approved version of these CDM Plans can be found on the IESO website in the following
31 location:
32 <http://www.ieso.ca/en/sector-participants/conservation-delivery-and-tools/cdm-plans>
- 33 e) Please refer to the response to BOMA Interrogatory 4 sub section c) at Exhibit I, Tab 1.1,
34 Schedule 2.04.

1

SEC INTERROGATORY 8

2 1.0 Revenue Requirement, Operating Costs and Capital Spending

3 Issue 1.3

4 Is the IESO's Operating Costs budget of \$191.4 million for Fiscal Year 2017 appropriate?

5 **INTERROGATORY**

6 [B-1-1, p.10] Please provide a copy of any shared services agreement or other document that
7 outlined the policies or relationships between the IESO and the Ontario Climate Change
8 Solutions Deployment Corporation ("OCCSD").

9 **RESPONSE**

10 Please refer to the response to Energy Probe Interrogatory 11 at Exhibit I, Tab 1.4, Schedule 5.11.

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1 SEC INTERROGATORY 9

2 1.0 Revenue Requirement, Operating Costs and Capital Spending

3 Issue 1.3

4 Is the IESO's Operating Costs budget of \$191.4 million for Fiscal Year 2017 appropriate?

5 INTERROGATORY

6 [B-1-1, p.10] Has the IESO included in its 2017 budget, any offsetting revenue for work it is
7 doing to support the OCCSD? If so, please provide details. If not, please explain how ratepayers
8 will be held harmless by the work the IESO does on behalf of the OCCSD.

9 RESPONSE

10 Please refer to the response to OEB Staff Interrogatory 3 at Exhibit I, Tab 1.4, Schedule 1.03.

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1 SEC INTERROGATORY 10

2 1.0 Revenue Requirement, Operating Costs and Capital Spending

3 Issue 1.3

4 Is the IESO's Operating Costs budget of \$191.4 million for Fiscal Year 2017 appropriate?

5 INTERROGATORY

6 [C-2-1, Attach 2] Please revise the Appendix 2-JB table to show the cost drivers on a year-over-
7 year incremental basis as opposed to a breakdown of total operations costs.

8 RESPONSE

9 Please see below for the revised Appendix 2-JB table

(in thousands)	2016 Actual	2017 Budget	Variance
Compensation & Benefits	109,483	117,459	7,976
Professional & Consulting Fees	16,844	20,963	4,119
Operating & Administration	34,336	35,954	1,618
Amortization	19,577	18,350	(1,227)
Interest	1,341	(1,362)	(2,703)
Total Operating	181,581	191,364	9,783

10
11 The higher operating expenses in the 2017 Budget are primarily due to the impact of Market
12 Renewal. Market Renewal will result in fundamental changes to Ontario's electricity market
13 that will require efforts from business units across the IESO. The project will require
14 incremental temporary resources to support the design of various Market Renewal initiatives,
15 to create new business processes and IT systems, to conduct ongoing stakeholder engagement,
16 and to address impacts on other IESO functions such as contract management and legal.

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SEC INTERROGATORY 11

1.0 Revenue Requirement, Operating Costs and Capital Spending

Issue 1.3

Is the IESO's Operating Costs budget of \$191.4 million for Fiscal Year 2017 appropriate?

INTERROGATORY

[C-2-1, Attach 3] With respect to Appendix 2-JC:

- a) Please provide additional columns for: i) 2016 budgeted amounts, and ii) year-to-date actuals.
- b) Please provide an explanation of all material variances between 2016 budget and actuals for each category.

RESPONSE

a) Please see below the table in Appendix 2-JC updated with the 2016 budget and the 2017 year-to-date June actuals as of June 30, 2017.

Operating (in thousands)	2016 Budget	2016 Actual	2016 Variance	2017 Budget	2017 YTD June Actuals
CEO	6,804	7,304	500	7,258	3,806
Market and System Operations	34,135	31,969	(2,166)	33,016	15,389
Market and Resource Development	20,382	18,239	(2,143)	20,022	7,220
Conservation and Corporate Relations	16,600	16,554	(46)	17,591	7,702
Information and Technology Services	44,073	46,341	2,268	45,783	23,440
Planning, Legal, Indigenous Relations & Regulatory Affairs	15,238	14,506	(732)	16,187	7,368
Corporate Services	16,171	16,773	602	16,399	7,889
Market Assessments and Compliance Division	3,662	2,980	(682)	3,835	1,499
Market Renewal	-	-	-	12,000	2,193
Corporate Adjustments	25,066	26,916	1,850	19,274	13,255
Total Operating & Administration Expenses	182,131	181,581	(550)	191,364	89,761

b) Full year operating expenses for 2016 were \$0.6 million below budget. Key drivers included lower than planned consulting support and legal expenses mainly in Market and Resource Development; savings from vacancies; labour recovery related to connection assessments and higher than planned capitalized labour costs. These savings were offset by higher than planned foreign exchange rate impacts and amortization expenses due to the timing of capital additions and increased capital assets being placed into service. Savings are also offset by higher pension and other post-employment costs, mainly due to a lower discount rate, which increases future liabilities, and reduced asset valuations during 2016, which resulted in a higher funding requirement.

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- 1 • The Demand Response Working Group is attended by industrial consumers and
2 municipalities and aggregators who work on behalf of all types of consumers,
- 3 • The Data Strategy Advisory Council [membership](#) has representation from several
4 consumers,
- 5 • The [Stakeholder Advisory Committee](#) and [Technical Panel](#) memberships both
6 contain representation from several types of consumers,
- 7 • Consumers are engaged through Regional Planning and Community Engagement
8 [initiatives](#) , and
- 9 • The IESO also provides a weekly bulletin email to all stakeholders including
10 consumers who want to register to connect with the IESO on its engagement
11 initiatives and meetings.

1 SOCIETY INTERROGATORY 1

2 1.3 Is the IESO's Operating Costs budget of \$191.4 million for Fiscal Year 2017 appropriate?

3 1.3 Society#1

4 INTERROGATORY

5 Reference: Exhibit A-2-2, Page 13, 1st table.

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Budget (\$ Millions)	2016	2017	2018	2019
Core Operating Expenses				
Compensation & Benefits	110.3	109.2	110.7	113.8
Professional & Consulting Fees	20.1	17.8	17.7	17.7
Operating & Administration	33.5	35.4	35.6	35.9
Amortization	17.5	18.4	19.6	19.0
Net Interest	0.7	(1.4)	(1.5)	(3.0)
Total Core Operations	182.1	179.4	182.1	183.4
Total Market Renewal Expenses	0.0	12.0	14.0	6.0
Total Expenses	182.1	191.4	196.1	189.4

19 a) Please explain in detail why the Net Interest expense in 2017 in this table is a credit.

20 b) Please explain in detail why the Net Interest expense credit increases further in 2018 and
21 2019.

22 RESPONSE

23 a) The Net Interest expense in 2017 in the table is a credit because the budgeted interest income
24 on investments exceeds the budgeted interest expense and this expense item reflects their
25 combined impact.

26 b) The Net Interest expense credit increases further in 2018 and 2019 in anticipation of higher
27 interest income levels.

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1 VECC INTERROGATORY 4

2 EXHIBIT A

3 Issue 1.0 (1.3)

4 INTERROGATORY

5 Exhibit A-2-2, Page 6 of 31 & 22

6 a) Please provide the annual increase in the cyber security program since 2015.

7 b) This program was expected to be completed Q1 2017. Has this been achieved?

8 RESPONSE

9 a) Investment into the cybersecurity program has been consistent since 2015.

10 b) Please refer to the response to BOMA interrogatory 1 part (h) at Exhibit I, Tab 1.0, Schedule
11 2.01.

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1 VECC INTERROGATORY 8

2 EXHIBIT A

3 Issue 1.0 (1.3)

4 INTERROGATORY

5 Exhibit A-2-2, Page 9 & 23

- 6 a) What is the 2017 budget of the SME?
- 7 b) What costs are shared between the SME and IESO?
- 8 c) What is the method for allocating shared SME/IESO costs?
- 9 d) What incremental costs are being incurred by IESO for the SME data enhancement project?

10 RESPONSE

- 11 a) The budget of the SME is outside of the scope of the IESO's 2017 Revenue Requirement
12 Submission. As stated on page 9 of Exhibit A-2-2, the work of the SME is reflected in a
13 separate fee application. On August 31, 2017 the SME filed an application for a new Smart
14 Meter Charge, EB-2017-0290, and this included the Smart Metering Entities' budget for the
15 period January 1, 2018 to December 31, 2022.
- 16 b) The IESO provides support services related to finance, legal, HR and IT; hardware and
17 software costs; and a portion of the OEBs annual fees. The costs of these items are allocated
18 to the SME.
- 19 c) IESO support services are allocated to the SME based on hours worked; SME hardware and
20 software is catalogued and the associated costs are transferred; and the OEBs annual fees are
21 allocated based as a percentage of operating budget.
- 22 d) No incremental costs are being incurred by the IESO for the SME data enhancement project.

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1 VECC INTERROGATORY 9

2 EXHIBIT A

3 Issue 1.0 (1.3)

4 INTERROGATORY

5 Exhibit A-2-2, Page 11 of 31

6 a) Please breakdown the \$9.3 million increase in 2017 proposed operating expenses into the
7 three cost driver areas identified (MRP and pensions and post-employment benefits).

8 RESPONSE

9 b) The three cost drivers that contributed to the \$9.3 million increase in 2017 proposed
10 operating expenses are as follows:

(\$ Millions)	2016 Budget	2017 Budget	Variance
Compensation & Benefits	110.3	109.2	(1.1)
Professional & Consulting Fees	20.1	17.8	(2.3)
Operating & Administration	33.5	35.4	1.9
Amortization	17.5	18.4	0.9
Interest	0.7	(1.4)	(2.1)
Total Core Operations	182.1	179.4	(2.7)
Total Market Renewal Expenses	-	12.0	12.0
Total Expenses	182.1	191.4	9.3

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AMPCO INTERROGATORY 7

1.0 Revenue Requirement, Operating Costs and Capital Spending

Issue 1.3

Is the IESO's Operating Costs budget of \$191.4 million for Fiscal Year 2017 appropriate?

INTERROGATORY

Reference: B-3-1 Page 1

a) Please provide Table 1 for 2015.

RESPONSE

(\$ Millions)	2015		
	Actual	Budget	Variance
Revenues	196.9	185.1	11.8
Costs			
Operating Costs	165.4	164.9	0.5
Amortization	17.9	18.7	(0.8)
Interest	1.6	1.3	0.3
Total Costs	184.9	184.9	-
Operating Surplus/(Deficit)	12.0	0.2	11.8
Accumulated Operating Surplus (opening balance)	7.6	-	7.6
Rebates to Market Participants	(9.6)	-	(9.6)
Accumulated Operating Surplus (closing balance)	10.0	-	9.8

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