

BOMA INTERROGATORY 1

INTERROGATORY

Ref: Application Letter

The IESO filed its Business Plan with the Ministry of Energy Northern Development and Mines (the "Ministry") on September 4, 2018. The Minister approved the twenty-two page Business Plan (the "Plan") on December 11, 2018, by way of a brief perfunctory letter. The IESO filed its revenue requirement with the OEB on January 29, 2019, nearly a month after the commencement of the fiscal year to which the revenue requirement pertains.

What efforts has the IESO made to have the Minister approve the Plan earlier in 2018, so as to allow the IESO to file its revenue requirement submission with the OEB sixty days prior to the commencement of the relevant year, per section 25(1) of the Electricity Act?

Given the various Ontario government's perfunctory approvals of the IESO's Plans in the last few years, why could not the IESO, with the Ministry's consent, file a draft Plan with the OEB shortly after it files the Plan with the Minister? Has the IESO discussed alternatives with the Minister or the Deputy Minister? If so, what is the Minister/Ministry's response been? If not, will the IESO undertake to have those discussions prior to the submission of its 2020-2022 Plan?

RESPONSE

a) The investigation of a multi-year revenue requirement submission includes exploring potential efficiencies within the requirements of the *Electricity Act, 1998*. Please see the response to OEB Staff Interrogatory 7, at Exhibit I, Tab 1.1, Schedule 1.07.

b) The IESO has not discussed alternatives with the Minister or Deputy Minister. Section 25(1) of the *Electricity Act, 1998* stipulates that the IESO must receive approval of its business plan before it files a revenue requirement submission with the OEB. The IESO has provided input to the OEB's Modernization Panel on May 7, 2018, outlining options to create more regulatory certainty, reduced administrative burden and greater cost-efficiency for the OEB, the IESO and Ontario's electricity customers in the approval of the IESO's revenue requirement and fees.

BOMA INTERROGATORY 2

INTERROGATORY

2. Ref: Plan, p1

(a) Please discuss the extent to which the Brattle Report proposed savings of more than \$3 billion, as a high level estimate of potential savings that might be realized by the implementation of the MRP is a guaranteed result of the initiatives. Please provide any other internal or third party studies which the IESO has conducted since the release of the Brattle Report, which support those high level estimates.

(b) Please provide your best estimate of the ratepayer energy savings in 2023, resulting from the implementation of the MRP (from your evidence, 2023 appears to be the first year after completion of the MRP). Does the IESO expect any ratepayer energy savings in either 2020, 2021, or 2022, resulting from the partial implementation of the MRP initiatives?

(c) Please provide the incremental ratepayer energy savings that IESO expects to result from the implementation of the MRP in the years subsequent to 2023.

RESPONSE

(a) Please see the response to OEB Staff Interrogatory 25 d), at Exhibit I, Tab 6.2, Schedule 1.25.

The 2017 Benefits Case estimated that MRP is expected to deliver an average of \$3.4 billion in efficiency savings over a 10-year period. The savings are based on the most likely outlook for demand and other key assumptions at the time the study was undertaken. The report noted that the net benefits could range from \$2,200 million to \$5,200 million depending on actual market conditions that cannot be predicted with certainty.

(b) The IESO will be calculating expected ratepayer savings over the first 10-years of MRP as part of the Business Case which will be completed by the end of Q3 2019. The IESO is planning to share the methodology, approach and analysis with stakeholders starting in May 2019.

There is not a partial implementation of MRP. As a result, the IESO does not expect any ratepayer savings in 2020, 2021 or 2022 as a result of MRP initiatives.

(c) Please see (b) above.

BOMA INTERROGATORY 3

INTERROGATORY

3. Ref: Plan, Executive Summary, p4

(a) On page 4, you state that the MRP:

"is designed to create more than \$3 billion in savings for customers over a five year period with the potential to reach as high as \$5.2 billion (over a ten year period)".

Please confirm that the five year period you are discussing is the period 2023 through 2027, or provide what five year period you are talking about.

(b) At p6 of the Plan, you state:

"advancing the MRP to deliver a competitive and efficient market which, over a ten year period, is expected to achieve an average of \$3.4 billion in savings".

Please explain what an average of \$3.4 billion in savings means. What is the \$3.4 billion the average of? Please clarify the phrase, which is used several times in the Plan.

RESPONSE

a) The quote provided in the interrogatory could not be found in the evidence. The quote appears to be a misquotation of what is stated on page 4 of the evidence, as shown below:

The IESO's market renewal program is designed to not only make today's electricity market more efficient, but to create more than \$3 billion in savings for customers over a 10-year period with the potential to reach as high as \$5.2 billion.

The 10-year period that is referred to is 2021-2030.

b) The \$3.4 billion is the estimated net present value (in 2021 dollars) of savings over a 10-year period that MRP is expected to achieve as estimated by the 2017 Benefits Case report. This estimate based on an average of the four demand scenarios in the Ontario Planning Outlook. The estimated savings are province-wide benefits and shared by customers and suppliers.¹

¹ For further information, please see "Estimating Potential Benefits to Ontario" (pages 37-40) and "Potential Benefits to Ontario" (pages 73-77) of the 2017 Benefits Case available on the IESO's website: <http://www.ieso.ca/Market-Renewal/Stakeholder-Engagements/Market-Renewal-Engagement>

BOMA INTERROGATORY 4

INTERROGATORY

4. Ref: Plan, p7

(a) The Plan states that one of the IESO's five areas of focus is to be a "sector leader". Please provide a description of the respective roles of the Ministry and the IESO in the development of energy policy, including the government's policy to reduce ratepayer energy savings through, in particular, the creation of an "innovation roadmap" and associated work plan. How does the IESO propose to coordinate its efforts with the Ministry and the Premier's Office?

(b) Does the IESO intend to do further analysis of the expected energy ratepayer savings, which will result from the implementation of those MRP initiatives for which high level designs are now complete, which will support the business case for the MRP, which the IESO proposes to publish in late 2019? If not, why not?

(c) Has the IESO made any quantitative assessment of the expected ratepayer energy savings that will result from the integration of existing and proposed energy storage assets into the Ontario energy system? If not, when does it propose to undertake such a study, which will provide a business plan for further energy storage initiatives?

RESPONSE

a) The Ministry of Energy, Northern Development and Mines (the Ministry) is responsible for setting the policy and legislative framework for Ontario's electricity system. The IESO provides updates on its activities to carry out the duties assigned to the IESO under the *Electricity Act, 1998* to the Ministry on an ongoing basis and provides advice and analysis to the Ministry, when requested.

The IESO's Innovation Roadmap sets out the IESO's approach to the change taking place in the sector, priority areas of focus and the projects underway to support them. As set out in the Roadmap, the IESO will focus its research and development (R&D) efforts on emerging issues that have the potential to significantly impact the IESO's ability to carry out its mandate. By engaging broadly throughout the R&D process, the IESO will work to objectively understand issues and alternatives – including stakeholder perspectives on different options – to facilitate an internal and external dialogue on the evolution of the broader energy sector as it relates to Ontario and the IESO's mandate. Through a

1 series of white papers, the IESO will inform the broader sector of the potential impact of
2 different scenarios and pathways for sector evolution.

3 b) Please see the response to OEB Staff Interrogatory 25 d), at Exhibit I, Tab 6.2,
4 Schedule 1.25.

5 c) While energy storage systems may yield financial savings for ratepayers in certain
6 contexts through the more efficient use of energy at key times, and by providing other
7 services to the electricity system they do not save energy as they incur losses while
8 converting, storing and returning energy to the electricity system. In the December 2018
9 report "Removing Obstacles for Storage Resources in Ontario" the IESO – having
10 worked with stakeholders through the Energy Storage Advisory Group (ESAG)
11 identified the market, policy and regulatory barriers to the fair competition of storage in
12 Ontario's electricity markets. As communicated to ESAG at the February 2019 meeting,
13 IESO is currently developing a work plan to address those barriers within the IESO's
14 scope of accountability. The IESO and OEB are working to coordinate their efforts in this
15 area. The Innovation Roadmap 2019-2021 Work Plan includes proposed capital projects
16 necessary to integrate storage. In instances where capital investment is considered by the
17 IESO to better integrate storage resources, the IESO will apply for those funds through
18 its regular business planning process, which includes the development of a business
19 case

BOMA INTERROGATORY 5

INTERROGATORY

5. Ref: Plan, p13

(a) Please explain why energy efficiency and demand response resources should not participate today (rather than "one day") in incremental capacity auctions.

(b) Please provide the current numbers (organizations and individuals, of the Energy Transformation Network of Ontario), their objectives, functions, and level of activity.

RESPONSE

a) Energy efficiency was excluded from the ICA design approximately two years ago because there was a separate funding framework (Conservation First Framework CFF) in place at the time to support energy efficiency investments. Recognizing that the ICA only compensates resources for capacity and that those resources are obligated to participate in the real time energy market, the IESO is considering a range of models that would accommodate the participation of energy efficiency as a competitive resource in Ontario. One option that will be considered is whether and how it could, in the future, participate in the ICA. The IESO is also undertaking a separate energy efficiency pilot auction in the near term that may help inform whether energy efficiency is ultimately included in the ICA.

b) Provided as Attachments 1 and 2 to this exhibit are the Energy Transformation Network of Ontario (ETNO) Member Bios and the ETNO Terms of Reference.

Energy Transformation Network of Ontario Member Bios

Michael Angemeer is the President and CEO of Veridian Corporation. Veridian serves customers through two subsidiaries, Veridian Connections who operate the electricity distribution system and Veridian Energy who provide business-to-business services to Ontario's energy and telecommunications marketplace. Mr. Angemeer is a leader in the energy industry with over 21 years of experience in electrical distribution and transmission operations. Prior to working at Veridian Corporation, he worked at Enersource Hydro Mississauga and Ontario Hydro. Mr. Angemeer has served on several boards including Chair of the Electricity Distributors Association. He currently sits as a member of the Board of Management for the Ontario Centre for Excellence in Energy and is a Board of Director for the Durham Strategic Energy Alliance. Mr. Angemeer has a Bachelor of Applied Science in Electrical Engineering with Management Science from the University of Waterloo and became a Professional Engineer in 1988.

Darlene Bradley, Vice-President, Planning, Hydro One Inc.: As Vice-President of Planning, Darlene creates value for Hydro One and its customers by creating a defensible investment plans and strategies for the ongoing safe, reliable and affordable operation of the transmission and distribution businesses. Prior to this, she was the Director of Technical Service. Hydro One delivers electricity to 1.3 million homes, businesses, industries and LDCs across the province of Ontario. Hydro One owns and operates a 30,000 km high-voltage transmission network and a 123,000 km low-voltage distribution system including 280 transmission stations and over 1000 distribution stations.

With 28 years of experience at Ontario Hydro and Hydro One, Darlene has gained extensive experience and provided leadership in a diverse range of Operational and Strategic roles. She is a Licensed Power Equipment Electrician and completed a Bachelor of Art in Science and Technology at York University. Darlene believes in keeping an eye to the future, practical solutions and the development of people and teams. She is a member of IESO's Stakeholder Advisory Committee, representing the sector of distributors and transmitters.

Nicolle Butcher, Vice President Strategy & Acquisitions: Nicolle has over 20 years of energy experience in both the electricity and natural gas sectors. In her current position of Vice President, Strategy and Acquisitions, Nicolle is currently accountable for articulating OPG's long term strategy including a growth and innovation strategy and driving strategic business functions such as energy trading, acquisitions, commercial contracting and market affairs. As part of the innovation strategy, Nicolle is accountable for developing a roadmap for OPG to support understanding and adoption of changing technologies and business models and driving further electrification using Ontario's clean electricity resources.

Prior to taking on the strategy role, Nicolle held a wide range of roles including leading a corporate wide business transformation, development of the Portlands Energy Centre and establishing a lease for the Bruce Nuclear plant.

Nicolle currently sits on the Board of Directors of Portlands Energy Centre. Nicolle holds a Masters degree in Business Administration and is a Chartered Business Valuator. Nicolle earned a Certified Project Manager designation from Stanford University and has earned an ICD.D designation from the Institute of Corporate Directors.

Karen Clark is the Director of the Distribution and Agency Policy Branch in the Strategic Network and Agency Policy Division of the Ministry of Energy. Before joining the Ministry of Energy, Karen was a policy director at the Ministry of the Environment and Climate Change, leading branches engaged in Strategic and Corporate Policy and Air Policy and Climate Change. Karen's branch led the development of the Ontario Climate Change Strategy and the Climate Change Action Plan.

David Collie is President and CEO of the Electrical Safety Authority (ESA) and as such, is an advocate of ESA's longer-term strategic direction and the vision to create "an Ontario free of electrical fatalities and serious injury, damage or loss". Mr. Collie has been recognized by the Ontario Power Authority and the Electrical Utility Safety Association for his business and safety leadership in private and public sector management of electric, water and gas utilities. A prominent energy speaker, Mr. Collie was the past President and CEO of Burlington Hydro and has supported the development of Ontario's electricity network as: a founding member of Ontario's Smart Grid Forum; former chair of the Electricity Distributors Association; and a Stakeholder Advisory Committee participant for the Independent Electricity System Operator. Mr. Collie holds an MBA, CMA and Chartered Director designation. Awarded the distinction of the "Fellow of the Society" in 2004, Mr. Collie remains a faculty member at the Directors College of Canada, and sits on the Strategic and Risk Management Committee of the Society of Management Accountants of both Ontario and Canada.

Jonathan Dogterom leads the Cleantech Practice at MaRS Discovery District. The Cleantech Practice is focused on advising and assisting innovative Ontario based Cleantech companies in growing their business. Over the past year the Practice has started to build a broader MaRS Cleantech and Energy Cluster with local and international partnerships to help drive economic growth through innovation. Jon has an extensive background in early stage and high growth alternative energy companies. Prior to joining MaRS, Jon led Business Development for Hydrogenics Corporation, was also previously with the Pembina Institute, and co-founded Sustainable Energy Technologies Ltd.

Mark Fernandes, Chief Information and Technology Officer (CIO) Hydro Ottawa

Limited: As Chief Information and Technology Officer, Mark Fernandes provides vision and leadership for the development and implementation of technology initiatives that support the advancement of Hydro Ottawa's business strategy and priorities. In his role, Mark oversees Technology Planning and Governance, Cyber Security, Grid Technology, Enterprise Architecture, System Development and Integration and IT/OT Operations.

Prior to joining Hydro Ottawa, Mark worked in the business and consumer software industry for over 16 years managing IT Strategy, Operations, e-Commerce, Web Development, Cloud Infrastructure models, and mergers and acquisitions.

Peter Gregg, [President and Chief Executive Officer, IESO](#)

Brian Hewson was appointed Vice President, Consumer Protection & Industry performance in November 2016. In this position Brian is responsible for the OEB's interface with industry. The CP&IP Division is responsible for consumer protection, as well as the development and administration of the OEB's codes and rules, liaison with industry stakeholders, the inspection of regulated entities, the assessment of utility performance and the Board's licensing and reporting functions. This Division also carries out the OEB's compliance and enforcement activities.

Brian joined the OEB in 1991 and has deep knowledge and experience in consumer protection and regulatory compliance matters. He has led various taskforces in the development of technical codes and standards for the electricity market and electric utility operations. From 2004 - 2009 Brian was the Chief Compliance Officer for the OEB where he led the development of an integrated compliance program focused on protecting the interests of consumers, and ensuring that regulated companies understood and achieved their regulatory obligations. Brian has been responsible for leading many policy initiatives including development of the OEB's renewed regulatory framework for the energy sector.

David McFadden is counsel at Gowling WLG having served as a Member of the Board of Trustees and Executive Committee of the firm. Mr. McFadden serves as Chair of the Boards of Directors of Toronto Hydro Corp., 407 International Inc. and PCI Geomatics Inc. and as a member of the Board of Cricket Energy Holdings Inc. Mr. McFadden is a director of the Ontario Energy Association having served previously as Chair of the OEA's Board. He is a member of the Advisory Board of the MaRS Advanced Energy Centre and of the Council for Clean and

Reliable Energy. Mr. McFadden previously served as a member of the Ontario Government's Electricity Distribution Sector Review Panel, the Electricity Conservation and Supply Task Force and the Electricity Transition Committee. He is a former Chair of the Board of the Ontario Centres of Excellence. Mr. McFadden holds a Bachelor of Arts from the University of Toronto, a law degree from Osgoode Hall Law School and an Honorary Doctorate of Laws from York University.

William Milroy, Vice President, Engineering and Operations, London Hydro

Jatin Nathwani is a Professor and Ontario Research Chair in Public Policy and Sustainable Energy Management, Faculty of Engineering and the Faculty of Environmental Studies at the University of Waterloo. Dr. Nathwani has extensive experience in the energy sector and most recently contributed to the development of the Ontario Power Authority's Integrated Power System Plan. His involvement in this initiative focused on the environmental and sustainability issues relevant to the planning process. In support of government policies and creating a true conservation culture within Ontario, Dr. Nathwani spearheaded the first major Hydro One conservation and demand management initiative. Dr. Nathwani has authored or co-authored three books, and over 70 reports and technical publications related to energy and risk management.

Alexandre Prieur is the Smart Grid Project Leader at CanmetENERGY, an energy and science research laboratory of the federal Department of Natural Resources Canada (NRCan). Prior to joining NRCan in 2009, he worked for 10 years in the private sector, in the telecommunication industry. Alexandre is now leading projects on grid integration of renewable and Smart Grid. In addition, he was actively involved in the production of The Canadian Smart Grid Standards Roadmap, a product of two years of extensive work by the Task Force on Smart Grid Technology and Standards, co-chaired by NRCan and Electrofederation Canada.

Neetika Sathe is Vice President, Corporate Development and Smart Grid Technologies at PowerStream Inc. Her role in the organization is to identify, analyze and develop leading-edge innovative technologies and business opportunities. Prior to joining PowerStream, Neetika was the Chief Marketing Manager for Nissan LEAF and Cross-Overs in Canada, responsible for sales and profitability for her portfolio, including the launch of the Nissan LEAF in Canada. Neetika has established thought leadership in areas of smart grid, microgrid, energy storage, clean energy, electric mobility and next generation utilities. She is also passionate about change management, innovation and mentoring young talent. She serves on the board of several

industry associations such as SmartGrid Canada and Electric Mobility Canada. Neetika has a Masters degree in Physics from Panjab University, followed by an MBA from McMaster University.

Katherine Sparkes is the Director of the newly created Innovation, Research and Development team within the IESO where she is responsible for developing and driving initiatives and investments in support of grid modernization and IESO's broader mandate. Her team works with partners across the energy sector and beyond to develop and undertake projects to understand new and advanced technologies, services, practices and policies that will help meet Ontario's current and future electricity needs. Katherine previously held various leadership roles in Conservation within IESO, including the development and implementation of award-winning Conservation & Demand Management (CDM) programs working with utility, business and other partners. Katherine has also taught in the Master of Laws in Energy & Infrastructure Program at Osgoode Hall Law School. Katherine has a Bachelor of Environmental Studies from the University of Waterloo and a Master of Planning from Queen's University.

Raymond Tracey, CEO, Essex Power

Joe Van Schaick, Electric Power Market Manager at Toromont Cat, is a recognized leader in the Ontario energy market for landfill, bio, syngas and CHP projects. He has been in the Caterpillar dealer network for 34 years starting his career in eastern Canada before joining Toromont Cat in 1994. Joe is often sought out for his knowledge and experience developing power system projects in the gas, bio-gas and mining sectors. He has extensive experience with power generation systems operating on diesel fuels, natural gas, biogas, syngas and a variety of low energy gaseous fuels. Joe brings a strong technical background and a keen business acumen for the development of these types of projects. Joe is the local president of the IDGTE (Institution of Diesel and Gas Turbine Engineers). Joe has also sat on a number of other industry advisory boards such as the Biogas Association and has been a member of several Caterpillar dealer advisory groups.

Terry Young, [Vice-President, Policy, Engagement and Innovation, IESO](#)

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Energy Transformation Network of Ontario (ETNO)

Terms of Reference

Version 5.0 – Approved, May 15, 2018

Introduction and history

The Ontario Energy Transformation Network includes member organizations from Ontario's utility sector, industry associations, non-profit organizations, public agencies and universities working together to propose a vision for a smart grid in Ontario and examine the many components that comprise it. It is supported by the Corporate Partners Committee, which represents more than 45 private sector organizations active in the smart grid space – including, electric vehicle interests, energy retailers, energy management companies, systems integrators and equipment manufacturers.

In early 2009, the Ontario Smart Grid Forum (the Forum) issued its report *Enabling Tomorrow's Electricity System*. The report provides recommendations to advance the development of Ontario's smart grid, including calling on the provincial government to provide a framework to promote the smart grid project. A short time later, the Ontario government introduced Bill 150, the *Green Energy and Green Economy Act, 2009* (the GEGEA) to facilitate renewable generation, conservation and the development of Ontario's smart grid. The Smart Grid Forum subsequently provided advice to the Ministry of Energy's efforts to establish a set of detailed principles to guide the regulatory approach to the implementation of the smart grid in a manner consistent with the 'smart grid' definition set out in the GEGEA. In November 2010, this culminated in the Minister's directive to the Ontario Energy Board enshrining those objectives.

Since early 2009, much has happened with respect to smart grid development in the province – particularly in the areas of policy development, publicly-funded research, and implementation achievements by both public utilities and the private sector. Many of the crucial developments during the time period spanning from 2009 to 2015 were detailed in the in a series of five public reports released by the Forum as follows:

1. *Enabling Tomorrow's Electricity System, 2009*
2. *Modernizing Ontario's Electricity System: Next Steps, 2011*
3. *Access to Consumer Data: A Vignette, 2012*
4. *Ontario Smart Grid Progress Assessment: A Vignette, 2013*
5. *Smart Grid-related innovation: the emerging debate, 2015*

A new name and a renewed mandate:

In the summer and fall of 2017, the Forum began to consider a renewed mandate for the in light of a maturation of the smart grid-related discourse, both within Ontario and many other jurisdictions around the world. As part of this examination of the Forum's ongoing mandate, the group held an important visioning exercise (facilitated by the MaRS Advanced Energy Centre). It was agreed that the issues the Forum has been examining in recent years was now

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more pressing than ever. Distributed Energy Resources (DERs), advanced distribution management platforms and new structural models for organizing the distribution sector are all challenging foundational notions of market boundaries, industry roles and responsibilities. Advanced transportation technology, environmental policy and other technological changes outside of the electricity sector are also having an increasing impact on the electricity system.

As a result the Forum has agreed to expanded engagement with stakeholders that are shaping the smart grid landscape from across the broader energy sector as well as the continue input from the Corporate Partners Committee. To reflect this renewed and refocused mandate the Forum also agreed to a new name, **the “Energy Transformation Network of Ontario” (ETNO)**.

1. Objective

The primary objective of the ETNO is to: *Advance and leverage the transformation of the Ontario’s energy sector by focusing on the high-level policy and regulatory aspects of emerging, smart-grid-related issues over a long-term horizon.* This will include a particular focus on topics including, but not necessarily confined to:

1. Act as a Platform for Dialogue amongst Key Stakeholders around Grid Integration
2. Provide Policy & Regulatory Recommendations
3. Develop design concepts and approaches to DER integration in Ontario
4. Capacity-Building, and particularly, assisting the interaction of utilities with other service providers, required to enable a high-DER future
5. Information gathering to assist the above activities

In carrying out its activities to meet this objective the ETNO will:

- Provide advice to government, regulators, agencies, and industry in general to advance the effective implementation of a smart grid in Ontario – including policy inputs for how DERs should be promoted or accommodated, while avoiding market distortions.
- Maintain a collective understanding of relevant developments in other jurisdictions
- Work to influence global developments in the interests of Ontario, such as necessary standards
- Identify barriers to investment and the means to address them
- Promote and support economic development by Ontario industry organizations and corporations and the export of smart grid expertise and knowledge
- Ensure that participation on ETNO appropriately reflects the diverse aspects of the Ontario energy demand/supply chain
- On a periodic basis, report to industry on progress towards achieving the Forum’s objective and provide a brief update between reports
- Identify a common way to manage system-level measures of DERs
- Propose roles, responsibilities, information flows within the energy system
- Create a roadmap for regulatory efficiency in a high-DER future"

1A. Formulation of ETNO Recommendations:

Over the past several years, ETNO has provided recommendations to policymakers on a variety of topics, through both public reports and direct input to various organizations. As a general rule, ETNO seeks to reach a consensus viewpoint on recommendations amongst its members and by weighing the advice of the Corporate Partners Committee. Even when consensus has been reached, ETNO has noted in its various reports where differences of opinion may arise or otherwise need to be considered when formulating policy.

Deliberating on policy options and reaching a consensus view is primary function of ETNO. However, ETNO members recognize that over the course of the group's deliberations, different viewpoints on various topics that arise may be incongruent with the views, positions, or mandate of the organizations that they are representing. Under no circumstances shall a member organization be forced to endorse an ETNO recommendation they do not agree with. In situations where a consensus viewpoint on a recommendation proposal is not possible, ETNO may choose such measures that may include:

- Noting the nature of the impasse without recommendation in the resulting report or recommendation;
- Refocusing the recommendation on the appropriate means by which the issue might ultimately be resolved by policymakers;
- Formulating a neutral position where the issue is raised and more than one potential policy option is presented; or
- Allow for one or more dissenting opinions to be reflected in the report or recommendation.

2. Scope

ETNO will:

- Focus on Ontario, but recognize developments occurring elsewhere and any necessary or opportune linkages
- Focus on electricity, but recognize convergence with other forms of energy, information technology, transportation and environmental considerations
- Not be an advocacy group for any one particular technology solution or vendor product
- Foster healthy competition and innovation in the provision of smart grid technologies
- Recognize and respect the interests of organizations participating in the Forum

3. Sponsor/Audience

ETNO is an industry initiative and the industry is the primary audience. However, this effort is also important to many other stakeholders, including the Ontario government, the Ontario Energy Board, the IESO, Ontario's research and development centres and manufacturing sector and retail customers.

ETNO'S member organization shall host and facilitate Forum meetings. The IESO and/or the Forum Chair's member organization may provide a "Smart Grid Corner" on its web site, offering public Forum materials as well as links to other efforts that are working toward the development of the smart grid.

4. Structure and Membership

ETNO will be composed of industry leaders and will represent a broad industry view. Participation will be voluntary. Forum members will be at the executive level – CEOs or direct reports to the CEO. ETNO may include one or more member representatives from each of the following categories of utilities, public sector institutions, and non-profit organizations:

- Energy Distributors;
- Energy Transmitters;
- Energy consumers;
- Organizations established under the provisions of the *Electricity Act*;;
- Academic institutions; and
- Other public sector and non-profit associations or institutions that may be identified by ETNO from time to time, including, but not necessarily confined to, representation from other energy-related sectors, and the Information and Communications Technology sectors.

ETNO may also include observer members from:

- Various branches of the Ontario government, including but not necessarily confined to the Ontario Ministry of Energy;
- Various branches of the Canadian Government, including but not necessarily confined to Natural Resources Canada;
- Generators;
- The Ontario Energy Board; and
- The Corporate Partners Committee, represented by the Chair and Vice-Chair of that Committee.

Subject to the above composition requirements, the admittance or removal of any member to or from ETNO's membership is further contingent upon a majority decision of ETNO members. ETNO may also invite various groups and organizations to attend Forum meetings from time-

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to-time as observers, without necessarily offering outright membership to those parties. ETNO will give particular attention to groups and organizations offering insights from key industry segments including:

- Business model disrupters
- Technology Providers
- Various customer classes ranging from residential to commercial/industrial
- Standards bodies
- Developers
- Property Managers
- Agricultural and Farming sector

The Chair of ETNO shall be an ex officio position held by the Chief Executive Officer of the IESO. The Chair shall be supported by a Vice Chair who is a member of ETNO and will serve for a term of two years, or as otherwise determined by ETNO members. The Vice Chair shall preside over meetings in the Chair's absence and carry out any other duties, as delegated by the Chair, that fall within the scope of these *Terms of Reference*.

Should ETNO need to incur costs beyond those associated with meeting facilitation, such costs shall be discussed and agreed to in advance and allocated among members as determined by ETNO.

One or more working groups may be established to facilitate the objectives of ETNO and to carry out directions as set out by ETNO. Working groups may be established as standing bodies, or ad hoc groupings assigned from time-to-time to a specific task assigned by ETNO. In all cases the Terms of Reference for those groups shall be approved by ETNO. Members of any working group established by ETNO shall be drawn from ETNO's member organizations and other organizations designated by ETNO.

Topics and issues will likely surface that will require input from subject matter experts and non-traditional industry players (such as the transportation industry). Working groups may be formed at the discretion of the ETNO to deal with these specific topics and issues.

ETNO is supported by a Corporate Partners Committee that acts in an advisory capacity for topic areas selected by mutual agreement with ETNO. The operations of the Corporate Partners Committee are governed by a separate *Terms of Reference* maintained by that Committee and approved by ETNO. ETNO will annually review ETNO's *Terms of Reference*.

5. Meeting Locations and Schedule

ETNO will meet as required to meet its objectives.

Generally, meetings will be held at a location designated by the Chair's organization.

6. Attendance:

ETNO members are expected to attend all meetings of ETNO. On occasion it may be necessary to delegate an alternate representative to attend in their stead. In such circumstances, alternate representatives shall be from ETNO's Working Group – or otherwise be a sufficiently senior representative of that member's organization as to meet the spirit of the membership composition described in section 4.

If an ETNO member fails to attend three consecutive meetings or three meetings within a calendar year, they shall seek to meet with the Chair to discuss their future participation in ETNO and/or the participation of their organization. ETNO as a whole shall review the ongoing participation of any member organization that fails to comply with this requirement.

BOMA INTERROGATORY 6

INTERROGATORY

6. Ref: Plan, p15

Please advise how many of the average headcount of 125 for the MRP for 2019 will be full-time employees of the IESO, full-time contracted employees, part-time employees, and the budget for each. Is the \$11.7 million in expenses on p16 of the Plan the cost of the 125 head count, or is any of the compensation of the 125 persons capitalized and included in the proposed \$38 million 2019 MRP capital budget? If so, what amount of the compensation costs is capitalized, covering how much of the head count?

RESPONSE

Please see the response to OEB Staff Interrogatory 27 a), at Exhibit I, Tab 6.2, Schedule 1.27. For capitalisation costs, and headcount, please refer to table below:

MRP Headcount	Operating (\$M)	Capital (\$M)	Total (\$M)	Headcount
Regular	\$3.8	\$11.4	\$15.2	92
Temporary	\$1.4	\$4.1	\$5.5	33
Total	\$5.2	\$15.5	\$20.7	125

BOMA INTERROGATORY 7

INTERROGATORY

7. Ref: Plan, p17

(a) Please explain the extent to which additional resources needed to fund the IESO's planning, corporate, information technology services, and cybersecurity initiatives are allocated to Market Rules enforcement, market education, and energy efficiency programs. Please indicate the required resources that are allocated to these three programs. Please provide the IESO's authority to use those three programs as funding sources for its capital and OM&A budgets.

(b) Please justify this rather extraordinary budgeting method which appears to understate the actual resources devoted to the IESO initiative in the computation of the IESO's revenue requirement. The understatement appears to affect the credibility and integrity of the projected revenue requirement dollars, both capital and operating budgets.

RESPONSE

(a) Please see the response to OEB Staff Interrogatory 10, at Exhibit I, Tab 1.3, Schedule 1.10.

The IESO Adjustment Account is used to receive and disburse payments related to penalties, damages, fines, and payment adjustments arising from resolved settlement disputes, to fund Market Education activities and to reimburse the IESO for any associated costs for expenses. The IESO does not seek fee recovery for expenses reimbursed via the Adjustment Account.

(b) The IESO's budgeting methodology is aligned with typical Financial Planning and Analysis practices in the public sector. For further information on the IESO's budget allocations and budgeting process, please see the responses to Energy Probe Interrogatory 11 and SEC Interrogatory 1, at Exhibit I, Tab 2.1, Schedule 4.11 and at Exhibit I, Tab 1.1, Schedule 10.01, respectively.

BOMA INTERROGATORY 8

INTERROGATORY

8. Ref: Plan, p19

(a) Please provide the accounting principles that justify the entirety of the detailed design stage of the MRP being capitalized.

Please provide the external legal costs incurred by the MRP in 2018 versus forecast, and the forecast external legal costs for 2019.

Please provide the current percentage completion of the MRP business case and your estimate of in which month of 2019 it will be complete and published.

(b) Please explain further the comment that "resourcing for the program (MRP) continues to be a challenge". Please discuss how the IESO is striving to meet that challenge. Please provide details.

RESPONSE

(a) The IESO follows Public Sector Accounting Standards and considers the provisions in the Office of the Provincial Controller Division's Tangible Capital Assets Guideline for further interpretations. Generally, IESO projects have three phases: Initiation, Implementation and Closure. Capitalization begins in the Implementation project phase which includes detailed design.

The detailed design phase consists of work activities that are both capital and operating expenses in nature. The majority of the work completed during this phase will be on detailed designs and planning material in advance of the implementation phase which will be capitalized. Operating work activities during the detailed design phase include Market Rules and contract amendments, training and work required to complete the business case.

External legal costs incurred by the MRP are in the table below:

2018 Actual	2018 Forecasted	2019 Budget
\$1.2 million	\$1.4 million	\$1.7 million

It is not possible to provide a meaningful percentage of completion at this time; work on the business case started in Q1 2019 and stakeholders will be engaged in Q2 2019. The business case is estimated to be completed in Q3 2019.

(b) Please see the response to OEB Staff Interrogatory 12, at Exhibit I, Tab 1.3, Schedule 1.12.

1 **BOMA INTERROGATORY 9**

2 **INTERROGATORY**

3 9. Ref: Plan, pp18 and 24

4 Please reconcile the different numbers for the 2019 MRP capital budget between those
5 shown on the diagram on p18 (\$38 million) and the table on capital spending on p24 (\$4
6 million).

7 **RESPONSE**

8 Please –see the response to AMPCO Interrogatory 18, at Exhibit I, Tab 1.4, Schedule 13.18.

1 **BOMA INTERROGATORY 10**

2 **INTERROGATORY**

3 10. Ref: Minister's Letter Approving Plan

4 Please provide a copy of the Memorandum of Understanding between the IESO and the
5 Ministry.

6 **RESPONSE**

7 The Memorandum of Understanding between the IESO and the Ministry is provided as
8 Attachment 1 to this response.

MEMORANDUM OF UNDERSTANDING

BETWEEN

HER MAJESTY THE QUEEN IN RIGHT OF THE PROVINCE OF

ONTARIO

AS REPRESENTED BY THE MINISTER OF ENERGY

AND

INDEPENDENT ELECTRICITY SYSTEM OPERATOR

2016



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1 PURPOSE OF THIS MEMORANDUM

1.1 The purposes of this Memorandum are,

- (a) to set out the accountability relationships between the Parties;
- (b) to clarify the operational roles and responsibilities of the Minister and Deputy Minister of the Ministry of Energy, and the Chair, the Board of Directors and the Chief Executive Officer of the IESO, and record their mutual understanding in respect of these matters; and
- (c) to set out the expectations for the governance, operational, administrative, communications, financial, auditing and reporting arrangements between the Ministry and the IESO.

1.2 This Memorandum does not affect the powers, duties or obligations of the IESO or those of individuals or entities that have powers, duties or obligations in respect of the IESO, as set out in applicable legislation, or as otherwise established by law. In the event of a conflict or inconsistency between the provisions of this Memorandum and any applicable legislation, regulations, licences, orders, codes or other instruments governing the IESO, the latter shall prevail to the extent of the conflict or inconsistency.

2 DEFINITIONS AND INTERPRETATION

2.1 In this Memorandum:

"2013 Ontario Long-Term Energy Plan" means the energy plan issued on December 9, 2013 by the Ministry of Energy;

"Act" means the *Electricity Act, 1998*, as may be amended from time to time;

"Board of Directors" means the board of directors of the IESO;

"CEO" means the Chief Executive Officer of the IESO;

"Chair" means the Chair of the IESO;

"Conservation First" means:

- (i) the policy framework identified in the 2013 Ontario Long-Term Energy Plan to put conservation as the first resource before building new generation and transmission facilities, and to make conservation the preferred choice wherever cost-effective, and

- (ii) any additions, deletions, revisions or other changes to that policy framework in any subsequent Long-Term Energy Plan;

"Deputy Minister" means the Deputy Minister of the Ministry;

"Government" means Her Majesty the Queen in right of the Province of Ontario, as represented by the Minister;

"IESO" means the Independent Electricity System Operator continued under subsection 5(1) of the *Electricity Act, 1998*, as amended;

"Implementation Directive" means a directive issued by the Minister to the IESO pursuant to subsection 25.30(1) of the Act, as such directive may be amended pursuant to subsections 25.30(3) and (4) of the Act;

"Implementation Plan" means an implementation plan submitted by the IESO pursuant to section 25.31 of the Act, as such implementation plan may be amended pursuant to that section;

"Long-Term Energy Plan" means the 2013 Ontario Long-Term Energy Plan or a long-term energy plan issued under subsection 25.29(1) of the Act;

"MBC" means the Management Board of Cabinet;

"Memorandum" means this memorandum of understanding between the Parties, as it may be amended from time to time by mutual written agreement of the Parties;

"Minister" means the Minister of Energy;

"Minister's Directive" means a directive issued by the Minister to the IESO pursuant to subsection 25.30(1) and 25.32(5) with the approval of the LGIC.

"Minister's Direction" means a direction issued by the Minister to the IESO pursuant to any of subsections 25.32 (7) or (8) of the Act, or a direction contemplated under subsection 25.32 (9) or (10);

"Ministry" means the Ministry of Energy;

"Parties" means the Government and the IESO, and "Party" means either one of them;

"TB" means the Treasury Board of Cabinet;

"Technical Report" means a report developed by the IESO pursuant to section 25.29(3) of the Act.

2.2 Any reference to the Act or any other Legislation, regulations (or section therein)

shall be deemed to be a reference to the current Act or legislation, regulations (or section therein), as may be amended from time to time.

- 2.3 The Parties agree and acknowledge that amended, supplemented or successive versions of the directives listed in Appendix 2 continue to apply to the IESO. Where a TB/MBC directive applies, all associated policies, procedures and guidelines (as amended, supplemented or replaced from time to time) also apply.

3 AGENCY AND CORPORATE STATUS

- 3.1 Pursuant to section 8 of the Act, the IESO is not an agent of Her Majesty for any purpose, despite the *Crown Agency Act*.
- 3.2 Pursuant to subsection 5(1) of the Act, the IESO is a corporation without share capital.
- 3.3 Pursuant to subsection 6(2) of the Act, the business and affairs of the IESO shall be carried on without the purpose of gain and any profits must be used by the IESO for the purpose of carrying out its objects.

4 GUIDING PRINCIPLES

- 4.1 The Minister recognizes that the IESO is a statutory corporation with a legislative mandate to perform specific functions in the electricity sector, as provided for under the Act, and that the IESO and the Chair exercise powers and perform duties in accordance with the Act and other applicable legislative requirements, including applicable directives and directions issued by the Minister.
- 4.2 The Chair acknowledges that accountability is a fundamental principle to be observed in the governance, management, administration and operations of the IESO.
- 4.3 The Chair shall ensure that the IESO conducts itself according to the management principles of the Ontario government. These principles include: ethical behaviour; prudence; efficient and lawful use of public resources; fairness; high-quality service to the public and openness and transparency to the extent permissible by law.
- 4.4 The Parties agree that, where and when appropriate, the maximum exchange of information at the earliest possible time is of mutual benefit to them and promotes accountability.

5 MANDATE AND GOVERNANCE FRAMEWORK

5.1 Mandate

- 5.1.1 The Government, as represented by the Minister, is responsible for the legislative, regulatory and public policy framework in which the IESO operates, while respecting the IESO's statutory role as an independent market operator in the Province. The objects of the IESO include, in addition to any other objects pursuant to the Act, directing the operation and maintaining the reliability of the IESO-controlled grid, and operating the IESO-administered markets, to promote the purposes of the Act.
- 5.1.2 The mandate of the IESO is embodied in Part II of the Act and in the Regulations made under the Act, as well as in its licence issued by the Ontario Energy Board, and may be informed by any applicable provisions of the *Ontario Energy Board, Act, 1998*, the Regulations or Codes made thereunder or any applicable Ontario Energy Board orders.
- 5.1.3 The Minister may issue directives and directions as authorized under the Act. Such directives and directions shall be made public.
- 5.1.4 The IESO shall support the Government in successfully implementing Conservation First by putting conservation first in its planning, approval and procurement processes, promoting a co-ordinated approach to conservation and encouraging collaboration of conservation efforts among electricity and natural gas utilities, all in accordance with the Conservation First policy framework in effect from time to time.
- 5.1.5 The IESO in carrying out its duties and responsibilities, including planning in respect of the electricity system for the short, medium and long term, shall carry out such procedural aspects of the Crown's constitutional duty to consult and accommodate Indigenous communities as are delegated to it by the Ministry.
- 5.1.6 The IESO also exercises its duties and responsibilities under a number of other statutes. Without limiting the generality of the foregoing, a non-exhaustive list of statutes of particular application to the IESO is set out in Appendix 1.

5.2 Governance Framework

- 5.2.1 The Board of Directors shall manage and supervise the management of the business and affairs of the IESO, including the appointment of the CEO (save and except the first CEO who was appointed by the Minister in accordance with the Act), and shall be responsible for the formation and operation of key committees essential to its governance structure.

5.2.2 The Board of Directors shall make by-laws regulating the business and affairs of the IESO.

5.2.3 The Board of Directors shall maintain a Governance and Structure By-law dealing with matters of corporate governance and structure in accordance with Part II, section 22(2) of the Act, including,

- (a) The appointment of the CEO of the IESO;
- (b) The circumstances in which a director ceases to hold office;
- (c) The remuneration and benefits of the chair and the other members of the Board of Directors;
- (d) Conflict of interest;
- (e) The delegation of the IESO's powers and duties;
- (f) The establishment, composition and functions of panels;
- (g) Such other matters as are prescribed by regulation or as are appropriate to the governance and structure of the IESO.

5.2.4 A by-law made under Part II section 22(2) of the Act must be approved in writing by the Minister. A by-law that amends or repeals the Governance and Structure By-law shall be filed with the Minister by the Board of Directors and the Minister shall have 60 days to disallow such a by-law by way of written notice to the Board of Directors.

6 ACCOUNTABILITY RELATIONSHIPS

6.1 Minister

6.1.1 The Minister is accountable to the Legislative Assembly for the IESO's fulfillment of its statutory mandate and its compliance with applicable legislation and adherence to applicable Minister's directives and directions.

6.1.2 The Minister is accountable to Cabinet for:

- (a) the IESO's performance;
- (b) the IESO's compliance with applicable legislation and TB/MBC directives;
- (c) the IESO's adherence to applicable Minister's directives and directions; and
- (d) implementation of the Long-Term Energy Plan, including the IESO's adherence to applicable Implementation Directives.

- 6.1.3 The Minister shall submit the IESO's annual report to the Lieutenant Governor in Council then table the report in the Legislative Assembly or, if the Assembly is not in session, deposit the report with the Clerk of the Assembly.

6.2 Chair and Board of Directors

- 6.2.1 The Chair, on behalf of the Board of Directors, is accountable to the Minister for the supervision and governance of the IESO and, specifically, for setting goals, objectives and strategic direction for the IESO that are within its mandate, and for carrying out the roles and responsibilities assigned to the Board of Directors under the Act, regulations made under the Act, other legislation, TB/MBC directives and this Memorandum.
- 6.2.2 The Chair is accountable to the Minister for ensuring timely communications with the Minister regarding any issues that affect, or could reasonably be expected to affect, the Minister's responsibilities for the IESO or the operations of the IESO.
- 6.2.3 The Chair is accountable to the Minister for ensuring timely input and assistance from the IESO to the Minister in relation to the development of the Long-Term Energy Plan, as requested by the Minister from time to time.
- 6.2.4 The Chair is accountable to the Minister for ensuring that the IESO fully implements and complies with each Implementation Plan approved by the Minister under subsection 25.31(5) of the Act, and that any proposed deviations from the Implementation Plan are first submitted by the IESO to, and approved by, the Minister under section 25.31(4), (5) and (6) of the Act before being implemented.

7 ETHICAL CONDUCT

- 7.1 Pursuant to subsection 14(1) of the Act, the Board of Directors may establish policies, rules, guidelines and codes, including codes of conduct, applicable to the directors, officers, employees and agents of the IESO and to members of panels established by the IESO, and shall ensure that such persons are informed of the policies, rules, guidelines and codes to which they are subject.
- 7.2 In order to demonstrate the IESO's commitment to the highest standard of ethical conduct and governance, the IESO shall establish conflict of interest rules for,
- (a) current employees of the IESO and members of the Board of Directors; and
 - (b) former senior employees and members of the Board of Directors.
- 7.3 The conflict of interest rules shall address post-service restrictions on the activities of former senior employees and members of the Board of Directors.

7.4 The conflict of interest rules shall form part of the IESO's codes of conduct.

8 ROLES AND RESPONSIBILITIES

8.1 Minister

Without limiting the responsibilities, duties, obligations or functions of the Minister, as set out in the Act, other applicable legislation and TB/MBC directives, the Minister is responsible for,

- (a) developing the Government's overall energy policy priorities and broad policy direction;
- (b) informing the Chair of the Government's overall energy policy priorities and broad policy direction that may impact the IESO;
- (c) reporting and responding to Cabinet and the Legislative Assembly with respect to the affairs of the IESO;
- (d) reviewing the business plan of the IESO and approving it or referring it back to the IESO for further consideration;
- (e) reviewing the IESO's Implementation Plan and approving it or referring it back to the IESO for further consideration and resubmission to the Minister.
- (f) consulting, as appropriate, with the Chair on significant new initiatives affecting Ontario's electricity sector and/or the IESO; and
- (g) appointing or re-appointing, in a timely manner and after consulting with the Chair, as appropriate, the directors of the IESO, pursuant to the process established by the Public Appointments Secretariat.

8.2 Chair

Without limiting the responsibilities, duties, obligations or functions of the Chair, as set out in the Act, other applicable legislation and TB/MBC directives, the Chair is responsible for,

- (a) providing strategic policy advice to the Minister, in writing and otherwise, and seeking strategic policy direction for the IESO from the Minister;
- (b) advising the Minister in a timely manner of any initiatives, issues or events related to the IESO that affect or could reasonably be expected to affect the Minister in the exercise of his or her duties;
- (c) reporting to the Minister on the progress of current public policy initiatives

undertaken pursuant to a Minister's directive or direction;

- (d) meeting with the Minister regularly, or as requested by either Party, to clarify or enhance the Parties' mutual understanding of interrelated strategic matters.

8.3 Board of Directors

Without limiting the responsibilities, duties, obligations or functions of the Board of Directors, as set out in the Act, other applicable legislation and TB/MBC directives, the Board of Directors is responsible for,

- (a) supervising the activities of the IESO, including the IESO's budgeting and allocation of resources;
- (b) determining the strategic direction of the IESO;
- (c) appointing the chair of the Board of Directors from among the directors;
- (d) appointing the second and subsequent CEOs of the IESO;
- (e) ensuring the IESO's funds are used with integrity, fairness and effective controllership; and
- (f) taking such steps as it considers advisable and appropriate to ensure an effective separation of functions and activities of the IESO relating to its market operations and its procurement and contract management activities, pursuant to subsection 5(4) of the Act.

8.4 Deputy Minister

Without limiting the responsibilities, duties, obligations or functions of the Deputy Minister as set out in the Act, other applicable legislation and TB/MBC directives, the Deputy Minister is responsible for,

- (a) discharging ministerial responsibilities with respect to the IESO that have been delegated to the Deputy Minister.
- (b) monitoring the activities of the IESO on behalf of the Minister to ensure that its mandate is being fulfilled and that it is acting in accordance with applicable TB/MBC directives;
- (c) ensuring that the IESO receives, where and when appropriate, such information and guidance as is required or requested in order to meet its responsibilities under the Act, other applicable legislation, TB/MBC directives and this Memorandum; and
- (d) meeting with the CEO on a regular and as needed basis on strategic matters of mutual importance to the Parties.

8.5 Chief Executive Officer

Without limiting the responsibilities, duties, obligations or functions of the CEO, as set out in the Act, other applicable legislation and TB/MBC directives, the CEO is responsible for,

- (a) managing the operations of the IESO in accordance with the mandate of the IESO;
- (b) providing leadership and management to IESO employees, including financial resources management;
- (c) advising the Ministry and the Chair about issues or events related to the IESO that may affect the Minister, Deputy Minister or Chair in the exercise of their responsibilities;
- (d) acting as the head of the IESO for purposes of the *Freedom of Information and Protection of Privacy Act* (FIPPA), subject to the delegation of any of the head's powers or duties under the Act;
- (e) fulfilling the roles, duties and obligations of a director on the Board of Directors;
- (f) ensuring adequate resources and supervision are dedicated to support and implement the Government's Conservation First policy initiative. The CEO shall identify an executive lead to provide the necessary leadership and support within the organization to liaise regularly with the Assistant Deputy Minister responsible for conservation at the Ministry to discuss progress in supporting and implementing that initiative; and
- (g) attesting, reporting and responding to the Ministry on the IESO's status of compliance with this Memorandum.

9 REPORTING AND OTHER SPECIFIC REQUIREMENTS

9.1 Business Plan

- 9.1.1 The IESO is required, at least 120 days before the beginning of each fiscal year, pursuant to section 24 of the Act, to submit its proposed business plan for that fiscal year to the Minister for approval.
- 9.1.2 Senior IESO employees and senior Ministry staff shall, during the drafting of the business plan, discuss the contents of the plan in respect of the alignment of the IESO's key initiatives with current Government policies.
- 9.1.3 The business plan shall, among other things, include and demonstrate steps that will be taken to support the policy of Conservation First in the IESO's planning, approval and procurement processes.
- 9.1.4 After the IESO submits the business plan to the Minister for approval, Ministry staff may request, and the IESO will make best efforts to provide, additional information and analysis from the IESO, as necessary for the purposes of their review of the business plan.
- 9.1.5 The business plan shall include, but shall not be limited to, the following elements:
 - (a) a mandate;
 - (b) strategic directions and objectives;
 - (c) an overview of current activities;
 - (d) future programs and activities and implementation plans;
 - (e) a financial budget, including capital projects, and impact on fees;
 - (f) a staffing plan that includes an assessment of the impact on the business plan;
 - (g) performance measures and targets over the period covered by the business plan; and

(h) risk identification, assessment and mitigation strategies to meet the objectives of the business plan.

9.1.6 Once approved, the IESO shall publish and maintain its business plan on its website as soon as practicable.

9.2 Annual Report

9.2.1 Within 90 days after the end of each fiscal year, the IESO shall deliver to the Minister a report on the affairs of the IESO for that fiscal year.

9.2.2 The report shall include audited annual financial statements. The statements shall be in a format that complies with the Government's stated accounting policies issued by the Office of the Provincial Controller.

9.2.3 Before the report is submitted to the Minister, the IESO shall provide to senior Ministry staff a draft of the report for their review in respect of the alignment of key initiatives with current Government of Ontario policies.

9.2.4 Ministry staff may request, and the IESO will make best efforts to provide, additional information and analysis from the IESO as necessary for the purposes of their review.

9.2.5 The Minister shall submit the annual report to the Lieutenant Governor in Council and shall then table the report in the Legislative Assembly.

9.3 Technical Report

9.3.1 Upon request from the Minister, the IESO shall deliver a technical report on the adequacy and reliability of electricity resources with respect to anticipated electricity supply, capacity, storage, reliability and demand and any other related matters the Minister may specify.

9.3.2 Before the report is submitted to the Minister, the IESO shall provide to senior Ministry staff a draft of the report for their review.

9.3.3 Ministry staff may request, and the IESO will make best efforts to provide, additional information and analysis from the IESO as necessary for the purposes of their review.

9.3.4 The Minister shall post the report on a publicly-accessible Government of Ontario website or publish the report in another manner.

9.4 Implementation Plan

9.4.1 Following the issuance of an Implementation Directive, the IESO shall, within the time specified in the directive, submit to the Minister an implementation plan containing an outline of the steps the IESO intends to take to meet the

requirements set out in the directive in order to implement the LTEP.

- 9.4.2 Senior IESO employees and senior Ministry staff shall, during the drafting of the Implementation Plan, discuss the contents of the plan in respect of its alignment with the Implementation Directive and current Government policies.
- 9.4.3 Upon the request of Ministry staff from time to time, the IESO will make best efforts to provide additional information and analysis related to the contents of the proposed Implementation Plan, as necessary for the purposes of Ministry staff review of that Implementation Plan.
- 9.4.4 Once approved, the IESO shall, if requested by the Ministry, publish and maintain the Implementation Plan on its website as soon as practicable
- 9.4.5 Once approved under subsection 25.31(5) of the Act, the IESO shall fully implement and comply with the Implementation Plan in accordance with its terms. Any proposed deviations from the Implementation Plan shall first be submitted by the IESO to, and approved by, the Minister under section 25.31(4), (5) and (6) of the Act before being implemented.

9.5 Financial and Other Reports

- 9.5.1 The IESO shall provide to the Minister in a timely manner the IESO's financial statements and any other relevant information needed by the Ministry in relation to consolidation of the IESO's financial statements into the budget of the Province of Ontario's Public Accounts.
- 9.5.2 The IESO shall submit to the Minister of Finance salary information according to the *Public Sector Salary Disclosure Act, 1996*.
- 9.5.3 The IESO shall provide to the Ministry information and updates on its capital projects and market development initiatives as the Minister or the Ministry may, from time to time, require.
- 9.5.4 The IESO shall provide to the Minister or Deputy Minister in a timely manner a copy of any response to the recommendations made in a report issued by the Market Surveillance Panel. On an annual basis and within 90 days after the report is released by the Market Surveillance Panel, the IESO shall provide to the Minister or Deputy Minister a summary of any actions undertaken in response to recommendations made by the Market Surveillance Panel and a plan to address any outstanding recommendations. Where no action has been taken on the recommendations made by the Market Surveillance Panel, a rationale is to be provided by the IESO.
- 9.5.5 The IESO shall provide to the Minister or the Deputy Minister an annual attestation report detailing the IESO's status of compliance with the

requirements set out in this Memorandum. The report shall be provided to the Deputy Minister in writing within 60 days after the end of each fiscal period.

- 9.5.6 The IESO shall provide an annual report within 90 days after the end of the fiscal year, or on a more frequent basis if requested by the Ministry, to the Minister on the results in meeting the Government's Conservation First policy as identified in the IESO's business plan for that fiscal year.
- 9.5.7 The IESO shall provide to the Minister or Deputy Minister such reports and information as the Minister or Deputy Minister may, from time to time, request.
- 9.5.8 Where the reports or information requested under section 9.5.7 is considered confidential, the Ministry shall use such reports or information solely for the purpose of supporting the Ministry's responsibilities in agency oversight, planning and policy development. The Ministry shall keep such information confidential, and shall not disclose it to third parties without the consent of the IESO.
- 9.5.9 A summary of some of the key requirements for IESO governance reporting to the Minister or Ministry are listed in Appendix 3.

9.6 Stakeholder Input

- 9.6.1 The IESO shall establish one or more processes by which consumers, distributors, generators, transmitters and other persons who have an interest in the electricity industry may provide advice and recommendations for consideration by the IESO.
- 9.6.2 The IESO shall establish a Stakeholder Advisory Committee to provide policy level input to the Board of Directors and senior executives of the IESO. The Stakeholder Advisory Committee shall meet regularly and shall be composed of persons who represent a range of perspectives from interested stakeholders.
- 9.6.3 The IESO shall make best efforts to provide to the Ministry, at least three days in advance of release, all materials that are to be provided to the Stakeholder Advisory Committee and made available to the public.

9.7 Labour Negotiations

- 9.7.1 In advance of commencing discussions for the renewal of its collective agreements with its unions, the IESO shall seek advice from the Ministry on Provincial policy direction and relevant fiscal considerations affecting labour negotiations in the broader public and/or energy sectors.
- 9.7.2 The IESO shall provide regular updates to the Ministry on the status of the collective bargaining negotiations, as appropriate, and prior to finalising any collective agreement. When requested by the Ministry, the IESO shall provide

reports and analyses relating to proposed increases, offsets and any impacts on its budget and delivery of its services.

- 9.7.3 When a collective agreement has been negotiated and ratified, the IESO shall inform the Ministry of the results and details of the collective agreement in a timely manner.

10 PERFORMANCE EXPECTATIONS

10.1 Performance Standards

- 10.1.1 The IESO shall establish performance standards and a system for measuring its performance against those standards.
- 10.1.2 The system for measuring performance standards shall include, but shall not be limited to, the following:
- (a) measuring the IESO's achievements that align with the strategic objectives identified in its annual business plan;
 - (b) measuring the IESO's progress with respect to implementing the Government's policy directions; and
 - (c) measuring the IESO's achievement of ongoing efficiencies in operations with cost benefits to ratepayers.
- 10.1.3 The IESO shall develop a risk management strategy to ensure that it is able to meet its mandate and the strategic objectives identified in its annual business plan and that it is able to comply with applicable TB/MBC directives.

10.2 Financial and Regulatory Responsibilities

- 10.2.1 The IESO shall operate on a financially sustainable basis and operate its assets efficiently and cost-effectively, and deliver optimal value to Ontario's rate payers, respecting the requirements of its mandate as an independent market operator.
- 10.2.2 The IESO shall, pursuant to subsection 25(1) of the Act, annually submit to the Ontario Energy Board the IESO's proposed expenditure, revenue requirements and fees it proposes to charge for the year for the Ontario Energy Board's review and, as appropriate, approval, but shall not do so until after the Minister approves the IESO's proposed business plan for that fiscal year.
- 10.2.3 The IESO may establish and charge fees to recover costs pursuant to subsection 25.1 of the Act.

10.2.4 The IESO shall adhere to any applicable legislation which affects or constrains the manner by which the IESO must establish executive and other compensation levels. Without limiting the foregoing, the IESO shall, in setting executive compensation levels, select comparator groups based on an equal mix of public and private sector organizations, and compare its executive compensation levels at or below the 50th percentile to the comparator groups.

10.2.5 Notwithstanding section 10.2.4, but subject to applicable legislation, the IESO's compensation policies shall reflect, as appropriate, current Government policies, as communicated to the IESO or to electricity sector entities generally, as well as any relevant fiscal considerations for or relating to public sector compensation.

10.2.6 The IESO shall make financial decisions in a prudent and accountable manner and, in doing so, shall have regard to the value for and the impact of its decisions on ratepayers.

10.3 Operational Responsibilities

10.3.1 In accordance with its statutory mandate, the IESO shall operate the IESO-administered markets in a safe and efficient manner consistent with reliability.

10.3.2 The IESO shall also carry out its responsibilities in regards to short, medium and long-term system planning, conservation procurement and program coordination and procurement of energy supply and capacity within the policy framework of the Government, and in a manner that appropriately mitigates the corporation's financial and operational risks.

10.3.3 In negotiating a contract described in subsection 25.32 of the Act, the IESO shall operate in a manner that fulfills its statutory mandate, emphasizing, as appropriate, the best interests of ratepayers.

10.3.4 In accordance with its statutory mandate, the IESO shall direct the operation and maintain the reliability of the IESO-controlled grid, and carry out its responsibilities in regards to the development and enforcement of criteria and standards relating to reliability.

10.3.5 The IESO and the Ministry shall establish and maintain a supportive relationship with each other by ensuring that an appropriate and timely exchange of information occurs between the IESO staff and the Ministry policy staff on technical and specific policy matters. This includes, but is not limited to, the provision by the IESO of data, information, technical details and advice on the following matters:

(a) Transmission-related requirements;

(b) System planning and planning assumptions;

(c) Load data and amounts and costs of generation and load data under

legacy OPA and IESO contracts;

(d) Areas where more work from the Ministry or IESO may be needed; and

(e) Such other specific matters as the Ministry may request now and then, for purposes of statistical analysis or policy development by the Ministry.

10.3.6 The IESO shall fulfill its operational responsibilities in a manner that appropriately mitigates the corporation's financial and operational risks.

10.3.7 The IESO shall ensure that it responds to Minister's directives and directions in an appropriate and timely manner.

10.4 Separation of Functions

10.4.1 The IESO shall not conduct the operations of the IESO-administered markets in any manner that unjustly advantages or disadvantages any market participant or any class of market participants or is inconsistent with the Act.

10.4.2 The Board of Directors shall ensure that appropriate procedures are established and maintained so that confidential information that is in the possession or control of any officers or employees of the IESO, or any agent or third party working on its behalf, is not inappropriately communicated. However, where possible and appropriate, the IESO will seek to attain optimisation and synergies for the benefit of rate-payers and to support and facilitate enhanced efficiency in the operation of the grid.

10.5 Reporting on Post-merger Activities

10.5.1 The IESO shall provide reports, as may be requested by the Ministry, outlining the progress on transitional matters relating to the merger of the legacy OPA and the IESO.

10.6 Funding Program Administration

10.6.1 In this section, "Funding Program" means any program or initiative administered directly or indirectly by the IESO under which payments are made to third party recipients without:

- (a) receiving goods or services in return, as would occur in a purchase or sales transaction;
- (b) expecting to be repaid in the future, as would be expected in a loan; or
- (c) expecting a financial return, as would be expected in an investment.

10.6.2 Without limiting the generality of the foregoing, "Funding Program" includes any one or more of the following programs or initiatives:

- (a) the Energy Partnerships Program;

- (b) the Education and Capacity Building Program;
- (c) the Aboriginal Community Energy Plan Program;
- (d) the Aboriginal Renewable Energy Network;
- (e) the Conservation Fund;
- (f) the Innovation Fund and Collaboration Fund under the Conservation First Framework; and
- (g) any other program(s) or initiative(s) offered by the IESO from time to time that supplement or replace the foregoing in whole or in part.

10.6.3 The IESO shall integrate a risk-based approach into its management of the Funding Programs. In so doing, the IESO shall adopt the Transfer Payment Accountability Directive principles and process set out in Appendix 4.

10.6.4 The IESO shall implement appropriate governance structures and accountability processes to provide effective oversight, administration and management of such Funding Programs and the performance of third parties engaged in connection with the administration or management of such Funding Programs.

10.6.5 The IESO shall ensure that any such third parties comply with sections 10.6.1 and 10.6.2 (substituting the third parties in place of the "IESO" in such sections and in Appendix 4) as applicable to the performance of their obligations to the IESO in relation to such Funding Programs.

10.6.6 Ministry staff may request, and the IESO will make best efforts to provide, such cost-benefit information and analysis as may be necessary to support Ministry decision-making concerning future Funding Programs to be delivered through the IESO or a third party.

11 COMMUNICATIONS

- 11.1 The Chair and the Minister recognize that the timely exchange of information and effective consultation between the Parties, as and when appropriate, are essential to discharging their respective responsibilities.
- 11.2 Where an event or issue could have an imminent or significant impact on system reliability, the environment, safety or community well-being, the Parties shall inform each other immediately.
- 11.3 The IESO and the Ministry shall, as and when appropriate, consult with each other, on key communications issues that may affect the Ministry or the IESO. \
- 11.4 Where material has been provided to the Ministry for review in advance of its public release, the Ministry shall make best efforts to review this material within at least three days following receipt.
- 11.5 The IESO and the Ministry shall create a written protocol on communications wherein the IESO and the Ministry shall keep each other informed on issues, media responses and news releases that may have direct implications for the IESO, the Minister or the Government of Ontario. The IESO shall be prepared to provide all necessary background information on the issue to the Ministry.
- 11.6 Without limiting the generality of the foregoing, the IESO shall provide the Ministry with reasonable advance notice before publicly releasing statements about significant new developments concerning IESO's business or program activities, or initiatives.
- 11.7 In support of Conservation First, the IESO shall ensure its communication strategies include promotion and awareness of conservation to increase public understanding of energy consumption and the benefits of conservation among the general public.
- 11.8 The IESO shall provide to the Deputy Minister timely information and reports, as appropriate, regarding major governance and policy initiatives that may affect the Ministry or ratepayers. The Minister's and Deputy Minister's staff should be briefed appropriately on IESO initiatives to ensure they align with Ministry policy objectives.
- 11.9 The IESO and the Ministry shall share with each other on a timely basis, as and when appropriate, information related to contentious or highly sensitive matters, anticipated major developments or issues that may affect the IESO or the interests of the Government, and shall take appropriate measures to protect the confidentiality of such information.
- 11.10 In all other respects, the IESO shall communicate with Government ministries, agencies and the public in a manner that is clear, open and reliable, and as is appropriate for a statutory corporation operating in the public interest.

- 11.11 The IESO shall provide information in accordance with this Memorandum to the Government in a manner that is consistent with ensuring fairness in its procurement processes and with its contractual obligations.

11. FRENCH LANGUAGE SERVICES

- 11.12 The IESO shall, in accordance with section 9 of the Act, where reasonable, make information that is intended for the general public available in French, including information with respect to programs, services and communications.
- 11.13 For greater clarity, the limitations and exceptions for the provision of information to be made available in French set out in subsections 9(4) to 9(5) of the Act are applicable to the IESO.

12 AUDITING ARRANGEMENTS

- 12.1 The IESO shall appoint one or more auditors licensed under the *Public Accounting Act, 2004* to audit annually the accounts and transactions of the IESO, pursuant to section 25.2 of the Act.
- 12.2 Despite section 13.1 of this Memorandum, and in accordance with subsection 25.2(2) of the Act, the Auditor General may audit the accounts and transactions of the IESO.
- 12.3 The IESO shall provide to the Minister and the Minister of Finance in a timely manner a copy of every audit report produced by the Auditor General as well as the IESO's response to any such report. The IESO shall advise the Minister and Minister of Finance annually on any outstanding audit recommendations contained in any such audit reports.
- 12.4 Where the IESO is requested or required to provide any selected audit report and its response to such report to the Minister or the Minister of Finance, the IESO shall do so within a reasonable period.

13 ADMINISTRATIVE ARRANGEMENTS

13.1 Applicable Administrative Directives

- 13.1.1 The IESO is subject to certain TB/MBC directives, including the directives listed in Appendix 2 of this Memorandum, which may be amended or updated or replaced from time-to-time. The IESO is also subject to the Transfer Payment Accountability Directive principles and process set out in Appendix 4.

- 13.1.2 In the event of a conflict between the directives listed in Appendix 2 of this

Memorandum (or the Transfer Payment Accountability Directive principles and process set out in Appendix 4) and the provisions of the Act or the regulations made under the Act, the latter shall prevail.

13.1.3 TB/MBC may, from time to time, add or amend directives, operational policies and guidelines that apply to the IESO and the IESO shall comply with all TB/MBC directives, operational policies and guidelines to which it is subject.

13.1.4 The Deputy Minister shall promptly inform the CEO of any new, updated or amended TB/MBC directives, policies and guidelines to which the IESO is subject.

13.1.5 The CEO shall ensure that any relevant by-laws, administrative policies and internal processes of the IESO comply with applicable TB/MBC directives.

13.2 Freedom of Information and Protection of Privacy

13.2.1 The CEO of the IESO is the head of the IESO for the purposes of FIPPA and the IESO is an institution for the purposes of FIPPA.

13.2.2 The IESO shall respond to access requests and privacy investigations and shall fulfill all requirements under FIPPA in a timely manner.

13.2.3 The CEO is responsible for ensuring that corporate policies, guidelines and training programs are in place to ensure process efficiency in responding to requests under FIPPA.

13.3 Records Management

13.3.1 The CEO is responsible for ensuring that there is a system in place for the creation, collection, maintenance and disposal of records in accordance with corporate policies, guidelines and best practices.

13.3.2 The CEO is responsible for ensuring that information and records are managed strategically, cost-effectively and transparently to support public accountability.

14 TERM OF THIS MEMORANDUM

- 14.1 This Memorandum is effective as of the later of the dates on which the Parties have signed this Memorandum, as set out in section 16 below (the "Effective Date"). This Memorandum shall remain in effect for a period of five years from the Effective Date.
- 14.2 As of the Effective Date, this Memorandum replaces the Memorandum of Understanding between the Parties that took effect on April 8, 2015.
- 14.3 This Memorandum may be amended from time to time by mutual agreement of the Parties if in writing and signed by both Parties.
- 14.4 This Memorandum shall be reviewed upon the request of either Party.
- 14.5 If a new Minister or Chair takes office before this Memorandum expires, that individual must affirm this Memorandum in writing within six months after taking office.
- 14.6 The IESO shall publish this Memorandum on its website as soon as practicable after this Memorandum has been signed by both Parties.

15 SIGNATURES

HER MAJESTY THE QUEEN IN RIGHT
OF THE PROVINCE OF ONTARIO,
AS REPRESENTED BY THE MINISTER
OF ENERGY

By: 
Honourable Glenn Thibeault
Minister of Energy

May 15, 2017
Date

INDEPENDENT ELECTRICITY
SYSTEM OPERATOR

By: 
Tim O'Neill
Chair
Independent Electricity System Operator

May 9, 2017
Date

APPENDIX 1: STATUTES OF PARTICULAR APPLICATION

Auditor General Act

Accessibility for Ontarians with Disabilities Act, 2005

Broader Public Sector Accountability Act, 2010

Broader Public Sector Executive Compensation Act, 2014

Corporations Act (to be replaced by the Not-for-Profit Corporations Act, 2010)

Electricity Act, 1998

Environmental Bill of Rights, 1993

Freedom of Information and Protection of Privacy Act

Not-for-Profit Corporations Act, 2010 (once proclaimed into force)

Ontario Clean Energy Benefit Act, 2010

Ontario Energy Board Act, 1998

Ombudsman Act

Public Sector Expenses Review Act, 2009

Public Sector Salary Disclosure Act, 1996

APPENDIX 2: APPLICABLE TB/MBC DIRECTIVES

Accounting Advice Directive

Broader Public Sector Compensation Information Directive

Perquisites Directive

Travel, Meal and Hospitality Expenses Directive

Procurement Directive (applicable to IESO in part as an "Other Included Entity")

Note: Amended, revised or successive versions of the directives listed above continue to apply to the IESO. Where a directive applies, all associated policies, procedures and guidelines also apply.

APPENDIX 3: SUMMARY OF SOME KEY GOVERNANCE REPORTING

REPORT/ DOCUMENT	DUE DATE	NOTES
Public Sector Salary Disclosure (PSSD)	Annually, around February to March	PSSD related information and analysis due to the Ministry, PSSD reporting due to Ministry of Finance
Annual Attestation report on the status of compliance with this Memorandum	Annually, 60 days after the end of the fiscal year (by March 1)	For review by the Ministry
Annual Report, including audited financial statements	Annually, 90 days after the end of fiscal year (by March 31)	For acceptance by the Minister and tabling in the Assembly
Report on Market Surveillance Panel recommendations	Annually, within 90 days after the release of the report	For review by Ministry
Progress on Conservation First	Annually, 90 days after the end of the fiscal year (by March 31), and as requested	For review by Ministry
Audited financial statements and related information	Annually, around May – August	Submit to the Ministry for consolidation in the Public Accounts
Business Plan	Annually, 120 days before the beginning of the new fiscal year (by September 1)	For approval by the Minister
Financial information for Estimates Committee	Annually, around October – December	Submit to the Ministry for review and inclusion in the Ministry's submission
Governance and Structure by-law and amendments	After the by-law is made by the Board of Directors	For approval by the Minister in writing
Post-merger transitional matters	As requested by Ministry	For review by Ministry
Technical Report on adequacy and reliability of electricity resources	As requested by Minister	For review and posting on government's website
Other Reports and information requests	At the request of the Minister, Deputy Minister or designated staff	As requested by the Ministry for the purpose of agency oversight, planning and policy development

APPENDIX 4: TRANSFER PAYMENT ACCOUNTABILITY DIRECTIVE PRINCIPLES AND PROCESSES APPLICABLE TO THE IESO'S ADMINISTRATION OF FUNDING PROGRAMS

A key to the IESO's management of the Funding Programs is the overlay of a risk-based approach. Risk management practices provide the opportunity to establish the optimum level of oversight, control and discipline enabling the IESO to manage risk in changing environments and help provide the proper level of assessment that program objectives are being met.

The IESO shall integrate a risk-based approach into managing Funding Programs. This will include the following process:

1. Defining Expectations

- Considering the Funding Program environment, confirm and, if necessary, clarify:
 - program objectives
 - performance measures and targets
- Identify risks to meeting the program objectives
- Measure, assess and prioritize risks
- Plan and take action, e.g., risk management strategies

2. Agreements

- Enter into agreements with Funding Program recipients before payments are made
- Clearly document expectations in these agreements including program objectives, performance measures and risk management provisions

3. Monitoring and Reporting

- Monitor, report and assess expenditures and results (including risk reviews and value-for-money considerations), while managing risk, based on mandatory requirements and expectations in the agreement

4. Corrective Action

- Take action, based on mandatory requirements and the risk assessment results
- Results/actions will inform upcoming plans/expectations and, where applicable, can be addressed in the next agreement for continuous improvement

BOMA INTERROGATORY 11

INTERROGATORY

11. Ref: Tab 1, Sch 1, p2

(a) Please report on the status of the IESO's investigation of a multiyear revenue requirement proposal, to assist complying with section 25(1) of the Electricity Act.

(b) Please provide the proposed IESO 2019 expenditures for the wind-up of the Green Ontario Fund.

(c) Please provide the legal status of the MACD Enforcement activities and account. Is the MACD Enforcement a crown agency, a part of the IESO, a part of the Ontario government, or some other entity? How is it funded?

(d) The IESO substantially underspent its 2018 capital budget for both core operations and the MRP. Please discuss the reasons for the underspend in both core operations and the MRP, and whether the IESO is likely to underspend its proposed capital budgets for core operations and the MRP in 2019. What contingency amounts are included in the 2019 budgets?

RESPONSE

(a) Please see the response to OEB Staff Interrogatory 7, at Exhibit I, Tab 1.1, Schedule 1.07.

(b) All of the work that the IESO is doing for the Green Ontario Fund does not impact the IESO's revenue requirement and is funded separately through a Transfer Payment Agreement with the province. The IESO will be reimbursed for all of its termination and wind-up costs under the agreement.

(c) Please see the response to OEB Staff Interrogatory 10, at Exhibit I, Tab 1.3, Schedule 1.10.

(d) The MRP will be spending capital dollars throughout 2019 and expects to spend the MRP capital budget. Please refer to AMPCO Interrogatory 31 a), at Exhibit I, Tab 6.2, Schedule 12.31 for contingency amounts.

BOMA INTERROGATORY 12

INTERROGATORY

12. Ref: Tab 1, Sch 1, p7

Please discuss alternatives to the proposed increase in operating reserve, such as increasing the loan from the Province. Please explain in more detail, the rationale for the proposed increase from \$6 million to \$10 million.

RESPONSE

Please see the response to OEB Staff Interrogatory 18 b), at Exhibit I, Tab 4.1, Schedule 1.18.

BOMA INTERROGATORY 13

INTERROGATORY

13. Ref: Tab 2, Schedule 1, p3

Please explain the relationship between "operating reserve" and "operating deficit".

RESPONSE

Operating reserve represents funds retained by the IESO to address cost or revenue variances from approved budgets that are not always within the control of management nor reasonably foreseeable. Operating deficit refers to a negative balance in the operating reserve that arises when IESO's total expenditures are greater than total revenues at the end of a fiscal year.

BOMA INTERROGATORY 14

INTERROGATORY

14. Ref: Tab 2, Schedule 1, p5

Please define "temporary head count" versus "head count". Please discuss how they relate to FTEs and their contract status, average duration of employment, and their typical functions.

RESPONSE

The specific reference noted, could not be located. However, based on the terms identified in the interrogatory, a "temporary" headcount is understood to be staff that are not hired on a full time regular basis and have an end date to their employment term. The term "headcount" is understood to be regular or temporary staff employed by the IESO at a point in time. Whereas, an FTE is the annualized equivalent of a staff role over the course of a year.

The duration of employment for temporary staff can vary as can their duties as temporary staff could be employed for different mandates in various departments across the organization.

BOMA INTERROGATORY 15

INTERROGATORY

15. *Ref: Tab 3, Schedule 1, Attachment 4*

The number of budgeted FTEs has increased substantially in 2019 over 2018; 842 FTEs in 2019 versus 715 actual FTEs in 2018, and 731 budgeted FTEs in 2018. Please provide a detailed explanation for the increase which shows what the 127 additional employees will do. Please provide a detailed breakdown.

RESPONSE

The core operations increase in headcount, comparing the 2018 Latest Estimate to the 2019 Budget from "Exhibit B, Tab 3, Schedule 1, Attachment 4", is 128 positions. The main driver is 63 positions that were added in the Market Renewal Program to support the detailed design phase of the program, with 12 more positions for legal and market rules advisory to support the program. Further, an increase of 44 positions from 2018 actual staffing levels is due mainly to ongoing vacancies in the Planning, Acquisition & Operations and Policy, Engagement & Innovation groups, which are planned to be filled in 2019. Lastly, the Information Technology Services group added 9 positions to support the organization's Cyber Security and Enterprise Architecture efforts in 2019.

BOMA INTERROGATORY 16

INTERROGATORY

16. *Ref: Tab 3, Schedule 1, Appendix 2-JC*

Please provide details on the corporate adjustment line in the IESO budget for 2019 (\$15.3 million versus 2018 actual \$20.4 million and 2018 budget \$16.3 million). Please provide the details of each component of the corporate adjustment for each of 2019 and 2018.

RESPONSE

Please see the response to OEB Staff Interrogatory 3, at Exhibit I, Tab 1.1, Schedule 1.03.

BOMA INTERROGATORY 17

INTERROGATORY

17. *Ref: General*

Please provide the IESO operating and capital expenditures that are not funded through its revenue requirement. Please itemize each expense or capital project. In each case, please provide the source of the funding for the operating or capital item.

RESPONSE

The IESO reports expenses related to activities not funded through its revenue requirements in the notes to its statutory financial statements.

The relevant table for 2018 and 2017 is provided below. Within the table, Core Operations refers to IESO's expenses funded through its revenue requirement.

The IESO does not have capital expenditures outside of its revenue requirement or approved business plan.

11. SEGMENT EXPENSES

Expenses by object for 2018 are comprised of the following:

(in thousands of Canadian dollars)	2018 Core Operations	2018 Other Government Programs	2018 Smart Metering Entity	2018 Market Sanctions & Payment Adjustments	2018 Total
	\$	\$	\$	\$	\$
Compensation and benefits	123,880	1,799	2,840	4,388	132,907
Professional and consulting	20,004	285,067	15,742	1,198	322,011
Operating and administration	36,418	1,424	5,283	797	43,922
Amortization	19,616	-	4,519	-	24,135
Interest	1,978	914	49	-	2,941
Foreign exchange gain	(386)	-	-	-	(386)
Less: Recoveries	(4,357)	-	-	-	(4,357)
Total Expenses	197,153	289,204	28,433	6,383	521,173

Expenses by object for 2017 are comprised of the following:

(in thousands of Canadian dollars)	2017 Core Operations	2017 Other Government Programs	2017 Smart Metering Entity	2017 Market Sanctions & Payment Adjustments	2017 Total
	\$	\$	\$	\$	\$
Compensation and benefits	116,923	212	2,803	2,151	122,089
Professional and consulting	19,516	2,445	14,209	407	36,577
Operating and administration	34,890	39	4,641	703	40,273
Amortization	18,204	-	2,825	-	21,029
Interest	1,887	-	238	-	2,125
Foreign exchange gain	(86)	-	-	-	(86)
Less: Recoveries	(3,776)	-	-	-	(3,776)
Total Expenses	187,558	2,696	24,716	3,261	218,231

BOMA INTERROGATORY 18

INTERROGATORY

18. Ref: IESO Scorecard Evidence

(a) Please provide an estimate based on performance to date as to whether the IESO is likely to meet its 2015-2020 cumulative target for energy efficiency and conservation savings.

(b) How much of the total proposed savings have been, or will be, meter-measured?

RESPONSE

a) Effective March 21, 2019 by ministerial directive a new Interim Framework was established taking the place of the Conservation First Framework and Industrial Accelerator program which was discontinued. The interim framework for provincially delivered energy-efficiency programs began April 1, 2019.

Implementation of the directives entails that the IESO centrally deliver energy-efficiency programs on a province wide basis to electricity consumers connected to the IESO controlled grid and to those connected to a distribution system. The IESO will target CDM programs to commercial, institutional and industrial consumers, low-income residential consumers and on reserve First Nation communities, including communities that are or are soon to be connected to the IESO's controlled grid until December 31, 2020.

The IESO is currently developing a CDM plan for the interim framework to be submitted to the Ministry by end of April and posted publically thereafter. Performance targets for 2019-2020 will be developed and reported against following the submission of the CDM plan.

As of December 31, 2018, 6.2 TWh has been achieved through CFF and IAP, representing 71% of the 8.7 TWh target.

b) The Interim Framework CDM programs will be evaluated in accordance with the IESO's Evaluation Measurement & Verification Protocols and Requirements for all programs. The EM&V Protocols provides guidance for a robust evaluation, listing guidelines and general instructions. They identify the practice required to evaluate, measure and verify energy savings and demand reductions associated with CDM activities in Ontario. All evaluations reports can be found on the IESO EM&V website which outlines the evaluation approach used to verify the program savings.

1 **ENERGY PROBE INTERROGATORY 1**

2 **General**

3 **INTERROGATORY**

4 **EP-1**

5 **Reference:** No Reference

6 Please provide updated 2019 organization charts for IESO (to director level).

7 **RESPONSE**

8 Please see the response to OEB Staff Interrogatory 9, at Exhibit I, Tab 1.3, Schedule 1.09.

CME INTERROGATORY 1

INTERROGATORY

CME # 1

Ref: Exhibit A, Tab 2, Schedule 2, page 19 of 27

At Exhibit A, Tab 2, Schedule 2, page 19, the IESO states: "Resourcing for the (market renewal) program continues to be a challenge and as resulted in later completion of high-level design for the capacity work stream."

(a) Does the IESO expect resourcing to continue to be a challenge?

(b) If the answer to a) is yes, what steps will the IESO be taking that are either new, different or additional in order to ameliorate the resourcing difficulty, given that activity is expected to ramp up significantly on the MRP project in 2019?

(c) If the answer to a) above is no, why not?

RESPONSE

(a) Please see the response to OEB Staff Interrogatory 12 d), at Exhibit I, Tab 1.3, Schedule 1.12.

(b) Please see the response to OEB Staff Interrogatory 12.

(c) Not Applicable.

CME INTERROGATORY 2

INTERROGATORY

CME # 2

Ref: Exhibit B, Tab 1, Schedule 1, page 7 of 8

At Exhibit B, Tab 1, Schedule 1, page 7, the IESO states: "In response to potential volatility in spending driven by changes in the volume of activities and the external environment, the IESO is seeking approval to retain an operating reserve of \$10 million in 2019."

"As the IESO looks forward to the remainder of 2019, the IESO believes that \$10 million will be a reasonable and adequate reserve against the uncertainties referred to below."

(a) The IESO lists a number of risks on page 8 of Exhibit B, Tab 1, Schedule 1, including cybersecurity event; current workforce capabilities, and stakeholder support. Please describe which risk(s) have materialized or materially increased in 2019 over 2018 that would justify an increase in the operating reserve from \$6 million to \$10 million.

(b) In circumstances where the IESO's operating reserve was insufficient to cover the cost of risks that materialized, what would happen? Please describe in detail.

(c) If not for the impact of the accounting change put forward by the IESO in this application, has the IESO ever had to use the operating reserve to cover its costs in the previous 10 years?

RESPONSE

(a) The increase in the operating reserve from \$6 million to \$10 million is as a result of increased capital requirements and project complexities that relate to each of the risks mentioned as well as significant efforts pertaining to market renewal, transmission capacity auction and settlements replacement.

(b) In circumstances where the IESO's operating reserve is insufficient to cover the cost of risks that materialized, the FVDA account will be in a deficit balance and the IESO will seek to recover the reserve shortfall in the next revenue requirement

- 1 submission. This circumstance would result in rate volatility for the IESO; or,
2 additional pressure on operating costs to deliver its mandate.
- 3 (c) If not for the impact of the accounting change put forward by the IESO in this
4 application; since 2015, the IESO did not use the operating reserve to cover its costs.

CME INTERROGATORY 3

INTERROGATORY

CME # 3

Ref: Exhibit B, Tab 2, Schedule 1, page 3 of 3

At Exhibit B, Tab 2, Schedule 1, page 3, the IESO states: "In order to improve forecast accuracy, the IESO introduced an enhanced project prioritization process in late 2018, to identify and prioritize the projects that support the IESO's strategic outcomes, while balancing the need to maintain our critical IT systems."

- (a) Please describe the old project prioritization process.
- (a) What has changed in the new project prioritization process?
- (b) Has the new process led to any projects being scheduled that were not before, or removing projects that were once scheduled that are no longer considered as much of a priority? If so, please describe which projects, and the reasons for their reprioritization.

RESPONSE

- a) In the previous prioritization process, the project portfolio was evaluated on a quarterly basis by a cross-functional prioritization team. As part of this prioritization, initiatives were classified as Low, Medium or High priority based on a set of established criteria and added to the portfolio with the agreement of the cross-functional team.

The enhanced process builds on a number of these elements.

- a) b) The key changes in the prioritization process are:
 - A closer alignment with the annual business planning cycle. The prioritization process and activities now form part of the Enterprise Planning Framework and ties directly to our strategic plans;
 - Enhanced prioritization criteria to support the assessment of projects against our corporate strategy, mitigation of key enterprise risks, cost/benefit and project deliverability.
 - Improved resource planning. The IESO has developed a resource management tool to support the allocation of resources to specific projects and compare this to IESO's capacity to support capital initiatives.

- The development of an integrated portfolio schedule which indicates when new projects will be initiated throughout the year.
 - The portfolio is reviewed at least quarterly and can be adjusted as needed based on evolving needs or priorities.
- b) c) To accommodate the Transitional Capacity Auction which was not initially identified for 2019 the IESO performed an impact assessment on the current portfolio that considered capital cost implications, resource needs and relative project priorities. As a result, we deferred the start of three projects to accommodate this project in 2019 including the IT Service Management Project which will now start later in 2019.

CME INTERROGATORY 4

INTERROGATORY

CME # 4

Ref: Exhibit C, Tab 1, Schedule 1, page 1 of 2

At Exhibit C, Tab 1, Schedule 1, page 1, the IESO states: "The IESO is proposing to replace the current measure with a more focused measure: meeting or exceeding stakeholder expectations of their engagement with the IESO. For 2019, the target will be to maintain the 2018 score, i.e. at least 80% of stakeholders indicate that their experience with IESO's engagement meets or exceeds their expectations."

(a) Please explain why the IESO feels it is appropriate to change metrics, and eliminate a number of discrete measures that make up the existing "basket" of metrics.

(b) Why was 80% chosen as the target?

(c) How does holding the IESO's results steady at 80% reflect the concept of continuous improvement?

(d) In future years, does the IESO plan to set targets that are higher than 80%?

RESPONSE

a) Please see the response to OEB Staff Interrogatory 19 a), at Exhibit I, Tab 5.1, Schedule 1.19.

b) The target of 80% was chosen as that was the IESO's result in 2018 and it represents a baseline from which to measure ourselves.

c) The IESO will continue to strive for improvement based on the feedback received. Exceeding the target would be welcomed.

d) As the new metric is being implemented in 2019 for the first time, it would be premature to determine whether a target higher than 80% will be contemplated in future years.

CME INTERROGATORY 5

INTERROGATORY

CME # 5

Ref: Exhibit C, Tab 1, Schedule 1, page 2 of 2

At Exhibit C, Tab 1, Schedule 1, page 2, the IESO states: "In 2019, the IESO will target 80% of the highest impact market events are triaged within 14 days of observation, ensuring highest impact market events are addressed in a timely manner."

(a) Does the IESO currently measure how many high impact market events are triaged within 14 days?

(b) If the answer to a) above is yes, what is the IESO's current rate of triage within 14 days?

(c) If the above answer to a) is no, how did the IESO decide on 80% as the target?

RESPONSE

(a) This is a new performance measurement for the IESO (MACD). The IESO (MACD) started tracking the new performance measure in Q1 2019.

(b) Since the IESO (MACD) began tracking performance measurement at the beginning of Q1 2019, the current triage rate is 50%. The MACD is monitoring this performance measurement and adapting strategy and resource allocation to bridge the gap between actual and target.

(c) Not applicable.

1 **CME INTERROGATORY 6**

2 **INTERROGATORY**

3 **CME #6**

4 **Ref: Exhibit C, Tab 2, Schedule 1, page 11 of 15**

5 At Exhibit C, Tab 2, Schedule 1, page 11, the IESO states: "The current program budget is
6 estimated at \$247 million, with further budget refinement expected with the completion of the
7 business case in Q4, 2019."

8 (a) Please provide the previous cost estimates of the MRP.

9 (b) Please breakdown and itemize the addition estimated cost of the MRP by the additional
10 definitions to the program scope through the development of the HLDs and the
11 associated additional program planning work that has been completed.

12 **RESPONSE**

13 (a) The MRP overall program cost was estimated at \$217.6 million in the 2018-2020 business
14 plan and \$247.0 million in the 2019-2021 business plan.

15 (b) Please see the response to AMPCO Interrogatory 21, at Exhibit I, Tab 6.2, Schedule 13.21.

