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**BY EMAIL**

September 11, 2019

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

Dear Ms. Walli:

**Re: Ontario Energy Board (OEB) Staff Supplementary Interrogatories  
Independent Electricity System Operator (IESO) Application for Approval of  
2019 Expenditures, Revenue Requirement, and Fees  
OEB File Number: EB-2019-0002**

Pursuant to Procedural Order No. 6, please find attached OEB staff's supplementary interrogatories in the above referenced proceeding.

The IESO is reminded that responses to party interrogatories are due September 25, 2019.

Yours truly,

*Original Signed By*

Andrew Bishop  
Project Advisor, Supply and Infrastructure

C: Parties to EB-2019-0002



# **ONTARIO ENERGY BOARD**

## **OEB Staff Supplementary Interrogatories**

**Independent Electricity System Operator's Application for Approval of  
2019 Expenditures, Revenue Requirement, and Fees**

**EB-2019-0002**

**September 11, 2019**

**Staff-28**

Ref: C-2-2, p.1

The IESO's updated evidence that was filed with the OEB on August 26, 2019 indicates the IESO's public announcement identifying that proceeding with detailed design work on the ICA could no longer be justified was made on the morning of July 16, 2019 during a Market Renewal Program (MRP) update meeting.

- (a) Please indicate whether the Minister provided any formal approval or response regarding the change in the IESO's activities and spending as reflected in the evidence update.

**Staff-29**

Ref: Updated Evidence, Exhibit C

The IESO's updated evidence does not clearly articulate whether the IESO considers the revised approach to the ICA to continue to be part of the MRP. The initial application that was filed on January 28, 2019 provided a breakdown of all costs based on two buckets: (1) MRP and (2) Core Operations.

- (a) Please clarify if the revised approach to the ICA remains part of the MRP.
- (b) If the revised approach was removed from the MRP and therefore now falls under the IESO's Core Operations, please discuss the impacts of the change on the 2019 Core Operations operating and capital budgets.

**Staff-30**

Ref: OEB Staff interrogatory #25

Ref: The Brattle Group Report (prepared for the IESO)

Ref: IESO Business Case presentation, May 16, 2019

Ref: IESO Business Case presentation, July 17, 2019

Ref: IESO Detailed Design Engagement Plan, August 22, 2019

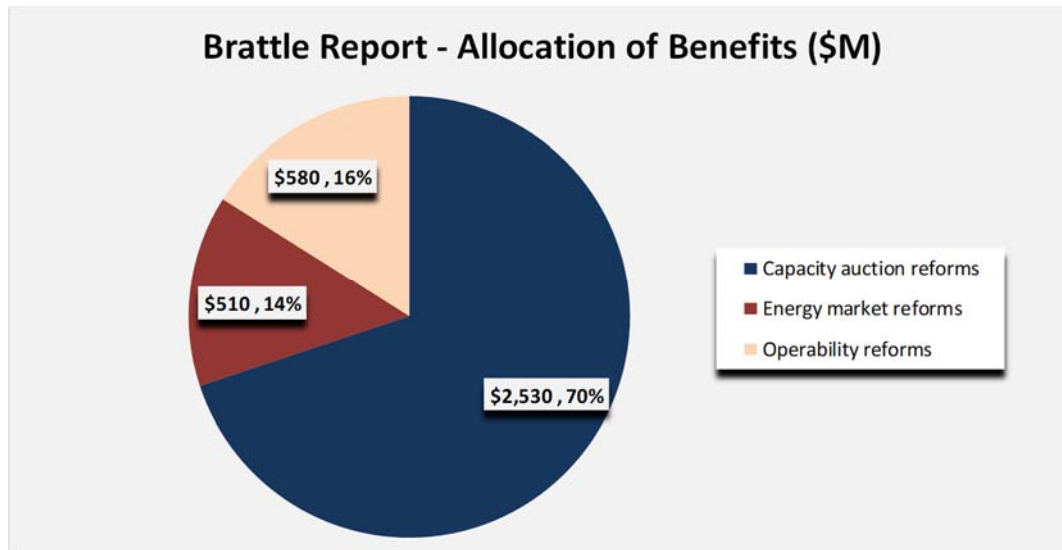
Ref: IESO Energy - Detailed Design Engagement Plan

Ref: Market Surveillance Panel (MSP) Feedback – IESO Alternative Load Pricing Design, July 2, 2019

Ref: IESO Updated Evidence (C-2-1, p.11, C-2-2, p.3)

In OEB staff interrogatory #25, staff asked the IESO to explain why the IESO considers it reasonable to hire and spend on the MRP prior to the finalization of the MRP's business case. The IESO response noted *"the IESO hired a third party to assess whether a comprehensive [MRP] would yield benefits to the sector when compared to*

the expected costs. As such, the 2017 Benefits Case concluded that the MRP is expected to deliver \$3.4B in net benefits over a 10-year period based on costs of approximately \$200M. The significant difference between the benefits and cost of the project provided the IESO with confidence that ongoing expenditure was warranted to develop the high level designs necessary to advance the project.” OEB staff notes that third party was The Brattle Group and the breakdown of benefits identified in the [Brattle Report](#) is set out in the chart below.



After that IESO response was provided, the IESO identified in developing the current Business Case that, without the ICA, the benefits are now limited to Energy Market reforms which account for 14% (i.e., red slice in chart) of Brattle’s original forecast. In addition, among the Energy Market reforms, the IESO also announced that LMP will no longer apply to non-dispatchable loads<sup>1</sup> which, according to the [MSP](#), will result in “leaving only few percent of all load exposed to locational prices” in Ontario.<sup>2</sup>

The IESO interrogatory response discussed above claimed High Level Design work was warranted based on the Brattle Report. However, the IESO has proceeded with spending on Detailed Design work. According to the IESO’s updated evidence, that includes work on the ICA which will no longer be implemented and the IESO is therefore applying to expense the money spent.

In developing the current Business Case, the IESO also stated the following in its [May 16, 2019 presentation](#) to stakeholders “An approved Business Case is a pre-requisite to supporting the project for the Detailed Design and Implementation phases”. According

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<sup>1</sup> [Market Renewal Program Update Meeting – June 18, 2019](#)

<sup>2</sup> <http://www.ieso.ca/-/media/Files/IESO/Document-Library/engage/mrpum/mrpum-20190702-market-surveillance-panel.pdf?la=en>

to the IESO's updated evidence, the current target date for an approved Business Case is not until Q4-2019. However, in the absence of a Business Case, the IESO formally announced on August 22, 2019 that all future spending would focus on the [Detailed Design phase<sup>3</sup>](#), as all HLD work had been completed.

- (a) Given the expected benefits for the MRP are now 14% of Brattle's estimate, and the IESO's view that an approved Business Case is a pre-requisite to carrying out Detailed Design work, please explain why the IESO believes it is prudent to continue to spend on Detailed Design work on the Energy stream before the Business Case is finalized?
- (b) Please explain the IESO's rationale for deciding to proceed with spending on Detailed Design work related to the ICA in advance of completing a Business Case and shortly before the IESO's Resource Adequacy Outlook was to be updated (which determined it was not needed)?
- (c) The IESO identified in its July 17, 2019 [MRP Business Case presentation](#) that the current Business Case will focus on only the Energy stream. As such, since the IESO plans to do further work on the Capacity work stream, please quantify the total costs and benefits associated with that stream as well.

**Staff-31**

Ref: C-2-2, p.1

Ref: C-2-2, p.3

Ref: A-2-3, p.1

The application states that the IESO's MRP will "deliver ratepayer value". The Minister's December 2018 letter approving the IESO's Business Plan notes "I hope the IESO will continue to focus on ... ensuring maximum value for ratepayers". The updated evidence states that the IESO has concluded from its most recent Resource Adequacy Outlook that the ICA is no longer required, for at least a decade. However, the application identifies that the IESO plans to incur additional costs to do further work on the capacity work stream and the IESO is therefore requesting those costs be included in its revenue requirement.

- (a) Please explain how further spending on the design of a capacity market that may never be implemented in Ontario will result in "ratepayer value" being realized.

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<sup>3</sup> <http://www.ieso.ca/-/media/Files/IESO/Document-Library/engage/mrp-edd/energy-detailed-design-engagement-plan.pdf?la=en>

- (b) Please explain why the forecast O&M spend on the capacity work stream has increased by \$1.5M to \$2.6M for the period of July 2019 to December 2019 (i.e., the period after the ICA was determined not to be required) relative to the budgeted amount (which was established based on the IESO's expectation that the ICA would be implemented in the near term).

**Staff-32**

Ref: Updated Evidence (C-2-1, p.11)

Ref: Initial Application (C-2-1, p.11)

The IESO's total program budget estimate of \$247 million for the MRP remains unchanged from the original application.

- (a) Given the reductions in the scope of the MRP project, please provide a refined estimate of the total project budget or explain why the total budget remains unchanged. If a refined estimate of total project costs is available, please update Table 9 below, extracted from Exhibit C, Tab 2, Schedule 1 of the IESO's updated application filed August 26, 2019.
- (b) Given the elimination of detailed design work related to the ICA and the lack of shading after 2019 in the second last row of the table (MRP – Capital), please explain why the IESO's capital spending would be expected to be the same in 2020 and beyond.

1 **Table 9: 2019 MRP Annual and Projected Final Project Costs**

Work Stream	Cost Category	2017 Actual	2018 Estimate	2019 Business Plan	2020 Business Plan	2021 Business Plan	2022 Budget*	2023 Budget*	2024 Budget*	Total Program
Energy	Operating	3.2	4.8	2.4	5.4	2.1				
Energy	Capital	-	0.6	26.7	28.1	25.7				
<b>Energy</b>	<b>Total</b>	<b>3.2</b>	<b>5.4</b>	<b>29.1</b>	<b>33.5</b>	<b>27.8</b>	-	-	-	
Capacity	Operating	1.6	5.2	4.7	1.5	2.2				
Capacity	Capital	-	-	11.3	15.2	15.1				
<b>Capacity</b>	<b>Total</b>	<b>1.6</b>	<b>5.2</b>	<b>16.0</b>	<b>16.7</b>	<b>17.3</b>	-	-	-	
General	Operating	3.1	4.9	4.6	5.3	5.3				
General	Capital	0.2	0.7	-	-	-				
<b>General</b>	<b>Total</b>	<b>3.3</b>	<b>5.6</b>	<b>4.6</b>	<b>5.3</b>	<b>5.3</b>	-	-	-	
MRP	Operating	7.9	14.9	11.7	12.2	9.6	8.0	7.0		
MRP	Capital	0.2	1.3	38.0	43.3	40.8	27.0	13.0		
<b>MRP</b>	<b>Total</b>	<b>8.1</b>	<b>16.2</b>	<b>49.7</b>	<b>55.5</b>	<b>50.4</b>	<b>35.0</b>	<b>20.0</b>	<b>12.0</b>	<b>246.9</b>

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3 \* Budget estimates are used for 2022 – 2024 and will be further refined after completion of the Business Case.

**Staff-33**

Ref: C-2-S1, p.10

Table 7 (“2019 MRP Operating Budget by Work Stream”) in the updated evidence indicates there is no change to the dollar amounts associated with the “General” work stream which represents support / shared resources (e.g., legal) associated with the Capital and Energy work streams.

- (a) Please clarify how much of the \$4.6M that is allocated to the “General” work stream remains associated with the Capacity work stream under the revised approach to the ICA.
- (b) If none of the \$4.6M is now allocated to the Capacity work stream, please explain why the same amount would be required to support only the Energy work stream which has an operating budget of \$2.3M (i.e., half the amount of “General”).

**Staff-34**

Ref. B-2-1, p.2

At Exhibit B-2-1. Pg. 2, the IESO states that it is seeking approval of its proposed 2019 capital expenditures envelope of \$43.3 million. At the same location, the IESO also provides the following table demonstrating forecast and actual capital expenditures over the past three year period.

Capital (\$ millions)	2017 Envelope	2017 Actuals	2018 Envelope	2018 Estimate*	2019 Envelope
Core Operations	25.0	15.4	22.6	14.4	17.3
Market Renewal Program	--	0.2	4.0	1.2	26.0
<b>Total</b>	25.0	15.6	26.6	15.6	43.3

\*Finalized 2018 data will be available when the IESO's 2018 Audited Financial Statements are completed.

- (a) In the original application, the IESO indicated a 2019 MRP capital budget of \$38.0 million; \$12 million higher than indicated in the updated evidence. Please provide a breakdown of each capital expenditure totaling to the \$38.0 million. Further, please indicate the capital expenditures being cancelled that total \$12 million.

- (b) Please indicate how much of the total \$26.0 million MRP capital budget has been committed/spent to-date.
- i. Please provide a description of all committed projects, the work stream (e.g., capacity or energy) they relate to, as well as the type of commitment (e.g., executed contract).
  - ii. Please provide a description of all capital expenditures incurred to-date, the date they were incurred, as well as the work stream (e.g., capacity or energy) they relate to.
- (c) Is there any non-essential spending on MRP activities that can be deferred until such time that the IESO's Board of Directors approves the Business Case?
- (d) If available, please update the column entitled "2018 Estimate\*" in the table above to reflect "2018 Actuals".
- (e) At Exhibit C-2-2. Pg. 2, the IESO states, "[a]pproximately \$0.5 million of the Capacity work stream capital costs spent prior to the revised approach and incurred in the first half of 2019 will be expensed as operating costs. " Based on the evidence provided, it appears that the IESO had forecast spending \$12 million in Capacity work stream related capital costs in 2019. Of the \$12 million, the IESO had spent \$0.5 million, or 4% of forecast, in the first six months of the year.
- i. Given the underspend seen to-date, please provide a basis upon which stakeholders can be confident that the IESO's proposal to spend \$26.0 million on capital items during the remainder of 2019 is reasonable.

### **Staff-35**

Ref: C-2-2, p.4

Many of the tables in the updated evidence have not been revised to reflect the cancellation of further design work on the ICA (i.e., revised approach). The figures from the initial application -- when an ICA was assumed to be required -- have simply been shaded, rather than updated. OEB staff finds that the way in which the evidence has been revised (i.e., tables not updated) can therefore result in confusion as certain totals do not appear to fully reflect the revised approach. For example, a number of tables (e.g., Table 6, Table 9, etc.) still show \$38M in capital costs associated with the Capacity work stream, as opposed to the revised amount of \$26M.

Staff is therefore uncertain what the IESO is applying for in relation to the MRP.

- (a) To the extend reasonable, please update the tables in the application that have been impacted by the revised approach to the Capacity work stream.

**Staff-36**

Ref: B-2-1, p.2

At Exhibit B-2-1. Pg. 2, the IESO states that:

“Given the scope and complexity of the IESO’s mandate, the IESO recognizes the potential for additional unplanned work activities that are beyond the control of management. The IESO is seeking approval to increase the operating reserve back to its approved 2016 operating reserve level of \$10 million as set out further in Exhibit B-1-1.”

- (a) Please describe how the reduced scale of the MRP project affects the level of uncertainty around possible unplanned work activities, as well as the amount of money that would need to be retained in a reserve account to fund them.
- (b) Please identify all unplanned work activities that were beyond the control of management undertaken by the IESO thus far in 2019.
  - i. If applicable, please identify on behalf of whom these unplanned work activities were undertaken.
  - ii. If applicable, please indicate the dollars spent on unplanned work activities thus far in 2019.

**Staff-37**

Ref. C-2-2, p.1

At Exhibit C-2-2. Pg. 1, the IESO states that:

“On July 16, 2019, the IESO announced that it would cease to move forward with the Incremental Capacity Auction (ICA) high level design (HLD) published in March of 2019, but would proceed to implement enhancements to the Demand Response auction that will continue to evolve over time into an enduring auction mechanism.”

- (a) Is the above quote referring to the Transitional Capacity Auction (TCA)? If not, is the IESO now intending to develop a new Demand Response auction outside of the TCA? If the IESO’s intent is to develop a new Demand Response auction, please respond to the questions set out below.
  - i. Please provide the following related to the Demand Response auction:
    - 1. Project status update (e.g., is the program in the preliminary design phase, final design phase, etc.?)
    - 2. Timing for when the Demand Response auction’s design will be finalized and the program offered to market.

- (b) Please confirm if the Demand Response auction is a component of the MRP. If not a component, please clarify from what budget work related to the Demand Response auction will be funded.
- i. If a component of the MRP, please confirm if the Demand Response auction will be reflected in the MRP business case.

**Staff-38**

Ref. C-2-2, p.4

At Exhibit C-2-2. Pg. 4, the IESO provides the following table that demonstrates 2019 incremental staffing levels related to the Capacity work stream.

Table 4: 2019 Capacity Work Stream - Incremental Staffing			
Staffing	2019 Budget	2019 Forecast	Variance
Regular	36.0	18.0	(18.0)
Temporary	19.0	9.0	(10.0)
Total	55.0	27.0	(28.0)

- (a) For 2019, the IESO forecasts a staffing complement of 27 for the Capacity work stream:
- i. Please indicated how many of the forecasted 27 staff were hired and assigned to the Capacity work stream as of July 16, 2019 (i.e., the date the IESO announced the cancellation of detailed design work on the ICA). Please provide the actual number of staff currently assigned to the Capacity work stream.
- ii. If applicable, please justify why the IESO has hired additional staff to work on the Capacity work stream since July 16, 2019.
- iii. Please also explain what the IESO staff allocated to the Capacity work stream have been focusing their efforts on since July 16, 2019 given the IESO has posted a detailed summary of stakeholder feedback on all of the HLDs (e.g., Single Schedule Market), except the ICA HLD.<sup>4</sup>

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<sup>4</sup> [IESO Response to Stakeholder Feedback – Single Schedule Market.](#)

**Staff-39**

Ref: C-2-2, p.4

Ref: C-2-1, p.12

The application provided forecast costs for 2020 and 2021 in relation to the ICA, as reflected in Table 9 of the evidence update (and shown in OEB Staff IR 32). In relation to the revised approach to the ICA, the updated evidence states “[r]esources will be gradually reduced through the rest of the year. The IESO expects further reductions in resources into 2020.”

- (a) Please provide forecast costs and “incremental” staff resource requirements for 2020 and beyond related to the Capacity work stream if the IESO is planning further work past 2019.
- (b) Please update the applicable tables to reflect all of the years that the IESO is planning to retain “incremental” staff resources to work on the Capacity work stream.
- (c) Please identify when the IESO plans to cease spending on the ICA module of the MRP that it determined was no longer required based on the IESO’s updated Resource Adequacy Outlook.

**Staff-40**

Ref: C-2-2, p.2

At Exhibit C-2-2. p. 2, the IESO states that, “In latter 2019 and in 2020 and beyond, Capacity resources will be focused on design and engagement work related to addressing resource adequacy needs.”

- (a) Please confirm if the resources referred to in the above quote are those currently assigned to the Capacity work stream.
- (b) The IESO’s statement suggests that all resources hired specifically to work on the Capacity work stream will remain employed by the IESO on a permanent basis. Please confirm if OEB staff’s interpretation of the statement is correct.
- (c) Please provide a full description of the work the IESO anticipates being completed by these resources. i.e., please clarify what the IESO means by its statement that these resources will be “focused on design and engagement work related to addressing resource adequacy needs”.

- a. Please justify this work given the IESO's statement that adequate resources exist for the foreseeable future.<sup>5</sup>

**Staff-41**

Ref: C-2-2, p.1

At Exhibit C-2-2. p. 1, the IESO states that:

"The IESO remains committed to providing open, transparent and competitive mechanisms for acquiring capacity and allowing a variety of resource types to compete. It will initiate an engagement with stakeholders on alternative approaches that could work in concert with auctions to meet capacity needs. The Capacity work stream will continue to support the development of options and tools to meet resource adequacy needs as well as auction enhancements to support an enduring auction. The revised approach allows the IESO to promote competition in a capacity auction market and through other mechanisms."

- (a) Please discuss the "options and tools", other than an ICA, that the IESO intends to investigate related to resource adequacy.
- i. How do these "options and tools" materially differ from those used by the IESO in the past to secure needed capacity (e.g., sole source procurements, requests for proposal, standard offer programs, etc.)?
- (b) The IESO's evidence indicates that in total, 27 staff will be required to engage stakeholders in order to explore resource-related "options and tools." Please justify why 27 staff are required to complete these tasks.
- i. Please identify the stakeholders being engaged, as well as the timing of these engagements in 2019.

**Staff-42**

Ref: Updated Evidence (August 26, 2019), C-2-2, Page 1

Exhibit C-2-2 Page 1 states:

"The revised approach reflects an update in the IESO's planning outlook which indicates that, over the next decade, there is enough energy to meet provincial demand and a limited need for additional capacity if existing Ontario resources are reacquired when their contracts expire. These limited capacity needs can be met through existing and available resources such as demand response, imports,

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<sup>5</sup> IESO updated evidence – Exhibit C, Tab 2, Schedule 2, p. 1.

generators coming off long-term contracts, uprates and energy efficiency.”  
[Emphasis added]

- (a) Please further explain what is meant by the term “available resources” in contrast to “existing resources” in the excerpt above.
- (b) In light of the IESO’s outlook, please summarize the amount (e.g. capacity) and timing of Ontario resources whose contracts will expire over the coming 20 years and explain what the IESO is doing to re-acquire or replace those resources.
- (c) Please outline the activities, budgets and staffing levels associated with this work in 2019 and 2020.
- (d) Please describe the extent to which the costs of securing these “available resources” are reflected in the IESO’s proposed 2019 revenue requirement.

**Staff-43**

Ref: Updated Evidence (August 26, 2019), C-2-2, Page 1

Exhibit C-2-2 Page 1 states that the IESO announced on July 26, 2019 that it would “cease to move forward with” the Incremental Capacity Auction detailed design.

Exhibit C-2-2 Page 1 states:

“The revised approach reflects an update in the IESO's planning outlook which indicates that, over the next decade, there is enough energy to meet provincial demand and a limited need for additional capacity if existing Ontario resources are reacquired when their contracts expire. These limited capacity needs can be met through existing and available resources such as demand response, imports, generators coming off long-term contracts, uprates and energy efficiency.”

- (a) Please provide the IESO’s “updated” planning outlook referenced at Exhibit C-2-2 Page 1 and in the excerpt above which indicates that “[...] over the next decade, there is enough energy to meet provincial demand and a limited need for additional capacity if existing Ontario resources are reacquired when their contracts expire”. When was this outlook developed?
- (b) The IESO published the document entitled “[Ontario Reserve Margin Requirements From 2019 to 2023](#)” on December 21, 2018.

Page 16 of that document states:

*“The Ontario system satisfies the resource adequacy criterion in Section 8.2 of the ORTAC over the five year study period 2019 to 2023. Through prudent planning and a commitment to cost-efficiency, the IESO will competitively acquire resources when needed to ensure Ontario consumers have a reliable supply of electricity at lowest cost.”*

- i. How, if at all, is the conclusion of the “update in the IESO's planning outlook” referenced at C-2-2 Page 1 determinatively different from the conclusion stated by the IESO in its December 21, 2018 Ontario Reserve Margin Requirements report?
  - ii. If determinatively different, please explain how the “update in the IESO's planning outlook” referenced at C-2-2 Page 1 specifically led the IESO to conclude that that it would “cease to move forward with” the Incremental Capacity Auction detailed design.
- (c) The IESO published the document entitled “[Ontario Planning Outlook](#)” in September.

Page 1 of the Ontario Planning Outlook states:

“Looking forward, Ontario’s electricity system is well positioned to continue to meet provincial needs [...]”.

- i. How, if at all, is the conclusion of the “update in the IESO's planning outlook” referenced at C-2-2 Page 1 determinatively different from the conclusion stated by the IESO in its September 2016 “Ontario Planning Outlook” document?
  - ii. If determinatively different, please explain how the “update in the IESO's planning outlook” referenced at C-2-2 Page 1 specifically led the IESO to conclude that that it would “cease to move forward with” the Incremental Capacity Auction detailed design?
- (d) Is the conclusion of the “update in the IESO's planning outlook” referenced at C-2-2 Page 1 determinatively different from any other outlook that was developed by the IESO while work was being undertaken by the IESO on the Incremental Capacity Auction?
- i. If so, please explain how the “update in the IESO's planning outlook” specifically led the IESO to conclude that that it would “cease to move forward with” the Incremental Capacity Auction detailed design (i.e. whereas previous outlooks did not lead to the same result).

- (e) Please summarize how much was spent by the IESO on the Incremental Capacity Auction and how many resources were hired to work on the Incremental Capacity Auction between:
- i. September, 2016 and December 2018 (i.e. between the publication of the Ontario Panning Outlook and the publication of the “Ontario Reserve Margin Requirements From 2019 to 2023”)
  - ii. December 2018 and August 2019 (i.e. between the publication of the “Ontario Reserve Margin Requirements From 2019 to 2023” and the IESO’s revised submission)
  - iii. September 2016 and the date of IESO’s “updated” planning outlook referenced at Exhibit C-2-2 Page 1

**Staff-44**

Ref: Updated Evidence (August 26, 2019), C-2-2, Page 1

Exhibit C-2-2 Page 1 states that “the current path of the [detailed design] had a lack of stakeholder support to proceed with detailed design.”

- (a) When did the IESO conclude that “the current path of the [detailed design] had a lack of stakeholder support to proceed with detailed design”?
- (b) Did “the current path” have stakeholder support prior to that point?
- (c) What specifically led the IESO to conclude that it had a lack of stakeholder support to proceed with detailed design?