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June 30, 2016

Ontario Energy Board
2300 Yonge Street
P.O. Box 2319
Suite 2700
Toronto, ON M4P 1E4

Attention: Ms Kirsten Walli
Board Secretary

Dear Ms. Walli:

Re: EB-2015-0275 – Independent Electricity System Operator 2016 Expenditure and Revenue Requirement Application

HQ Energy Marketing Inc. ("HQEM") and Association of Power Producers of Ontario ("APPrO") Interrogatories

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Please find attached the interrogatories of HQ Energy Marketing Inc. ("HQEM") and Association of Power Producers of Ontario ("APPrO") in the above-noted application.

Sincerely,

signed in the original

George Vegh

c.   David Butters, APPrO
Frédéric Bélanger, Hydro-Québec
Ms. Hélène Cossette, Hydro-Québec
Mr. Matthieu Plante, Hydro-Québec
Mr. All Interested Parties (e-mail)

EB-2015-0275

Interrogatories of APPrO and HQEM

Issue 2.1: Is the IESO's proposal to eliminate the OPA Usage Fee and to charge the proposed single IESO Usage Fee to all market participants (domestic and exporter customers) appropriate?

2-HQEM-APPrO-IR1. **Reference: General Interrogatory to IESO.**

(i) Please confirm whether any of the generation capacity that has been or is currently planned, in operation, or in construction in Ontario has been exported as firm capacity to any neighbouring jurisdiction, tagged as such in NERC e-Tags, and possibly designated as an external network resource or an equivalent installed capacity designation by the external control area.

(ii) Please provide the yearly quantity of associated firm energy exports from the capacity described in (i) over the last 5 years (in MWh) and how those firm export quantities compare with the total export quantities.

2-HQEM-APPrO-IR2. **Reference: General Interrogatory to IESO.**

(i) Please provide all protocols and practices administered by the IESO with respect to the provision of export service and, in particular, those that address when export services (including wheel-through transactions) may be curtailed. The response should be inclusive of IESO's emergency operating practices when internal transmission constraints or resource adequacy issues require the curtailment of exports, wheel-through transactions or internal loads.

2-HQEM-APPrO-IR3. **Reference: General Interrogatory to IESO.**

The IESO's most recent 18 Month Outlook dated June 21, 2016 for the period July 2016 through December 2017 states the following with respect to Surplus Baseload Generation ("SBG"):

> "Baseload generation is made up of nuclear, run-of-the-river hydroelectric and variable generation such as wind and solar. When the baseload supply is expected to exceed Ontario demand, the system is balanced using market mechanisms, which include export scheduling, the dispatch of hydroelectric generation and grid-connected renewable resources, and nuclear manoeuvering or shutdown. In addition, out-of-market mechanisms such as import cuts and curtailment of linked wheels could also be utilized to alleviate SBG conditions. These actions usually, but not always, occur when Ontario demand is at its lowest." (emphasis added, p.23), and
>
> "Ontario will continue to experience SBG conditions during the Outlook period, and SBG can be managed through existing market mechanisms." (p.24)

(i) Please explain how the aforementioned market mechanisms (including exports) and out-of-market mechanisms (including linked wheels curtailments) help alleviate or manage SBG conditions.

(ii) As regards the curtailment of linked wheels to alleviate SBG, when a curtailment occurs, are the impacted market participants financially compensated by the IESO? If yes, please detail the compensation(s).

(iii) Has the IESO consulted stakeholders who are able to schedule exports (for example through the Inter-Jurisdictional Trading Standing Committee) to evaluate the impact of the IESO fee increase to their level of activity? If yes, please file the minutes of the consultation. If not, why not?

(iv) What is the impact of the IESO's proposed fee on the annual amount of exports and what other mitigating measures will be necessary to address any reduction in exports?

2-HQEM-APPrO-IR4. **Reference: General Interrogatory to IESO.**

In December 2014, the North American Electric Reliability Corporation ("NERC") petitioned the Federal Energy Regulatory Commission ("FERC") seeking revisions to NERC Rules of Procedure (FERC Docket RR15-4-000). The Petition requests the elimination of the Purchasing-Selling Entities ("PSEs") from NERC's Compliance Registry. The request to remove PSEs from the Compliance Registry was ultimately approved by the FERC in that docket.

The following quotes from FERC summarizes the issue:

> **"Regarding the proposed elimination of the purchasing-selling entity, interchange authority, and load-serving entity categories, NERC explains that the activities of these types of entities are commercial in nature, and their removal from the Compliance Registry poses little, if any, risk to the reliability of the Bulk-Power System. In particular, NERC notes that these three categories of entities do not own or operate bulk electric system equipment." (emphasis added, p.4 of March 19, 2015 FERC Order) and,**
>
> **"NERC proposes to eliminate the purchasing-selling entity function from the Compliance Registry. According to NERC's analysis, eliminating the purchasing-selling entity function would have little to no effect on reliability. NERC regards the purchasing-selling entity function as market-driven rather than a reliability-driven function." (emphasis added, p.9 of March 19, 2015 FERC Order)**

(i) Please confirm that in Ontario, entities that export power or perform linked wheels fall under the previous PSEs functional entity in the NERC Registration Process.

(ii) Please confirm PSEs are not subject to reliability audits by NPCC and/or provincial authorities in Ontario.

(iv) Please confirm the IESO does not incur any direct reliability-related costs as regards PSEs.

(v) Please confirm that the quantity of electricity exported does not, in itself, have an impact on reliability or Ontario's NERC responsibilities.

2-HQEM-APPrO-IR5. **Reference: Exhibit B Tab 1, Schedule 1, p. 4.**

The evidence states that that "The IESO operates the market to benefit all sector participants without discretion."

(i) Please confirm that, according to the terms of reference, the IESO's Stakeholder Advisory Committee is made up of the following constituencies:

> "3.1. Committee to consist of 12-18 members representing each of the following five categories:
>
> Persons representing the constituency of generators of electricity
>
> Examples of representatives in this constituency might include generation by gas, nuclear, wind, solar, hydro-electric
>
> Persons representing the constituency of consumers of electricity
>
> Examples of representatives in this constituency might include residential, embedded retail/industrial, directly connected industrial
>
> Persons representing the constituency of transmitters and distributors with at least one member representing transmitters
>
> Persons representing related businesses and services
>
> Examples of representatives in this constituency might include electricity traders/wholesalers, aggregators, innovation, research, smart grid, gas utility, conservation-related services
>
> Persons representing Ontario communities
>
> Examples of representatives in this constituency might include municipalities, aboriginal, environmental, academia
>
> At its discretion, the Board may appoint one or more ad hoc members for specified terms."

(ii) Please advise of any SAC members that have been appointed to specifically represent the interests of exporters with specific reference to the terms of their appointment.

(iii) Please advise how many directives the Minister of Energy has provided to the OPA and the IESO in their history. Please advise of which of these directives specifically was aimed at benefitting exports.

2-HQEM-APPrO-IR6. **Reference: Exhibit A-2-2, page 6 of 20 states, "The IESO's responsibilities with respect to long-term planning will become formalized as a result of Bill 135, the Energy Statute Amendment Act."**

(i) Can the IESO comment on how its mandate and the departmental budgets as described in Elenchus' cost allocation study might change with the passing of Bill 135?

(ii) Does the IESO believe that its revenue requirement submissions going forward will materially differ from the 2016 revenue requirement submission due to the implications of Bill 135?

(iii) How will the relevance of Elenchus' evidence submitted by the IESO be affected with the passing of Bill 135?

2-HQEM-APPrO-IR7. **Reference: Exhibit B-1-1, Attachment 3, page 10, line 2 – 4 states, "The assignment given to Elenchus by the IESO was to develop a cost allocation model that would allocate the IESO's costs in a manner consistent with standard regulatory cost allocation principles and practices, in particular the principle of cost causality."**

(i) Please produce the terms of reference that the IESO provided to Elenchus and all other materials respecting the scope of the Elenchus study;
(ii) What sources did Elenchus use to identify "standard regulatory cost allocation principles and practices"? Please provide the authors and titles of work used for this assignment.

2-HQEM-APPrO-IR8. **Reference: In EB-2012-0031, OEB Decision and Order dated June 6, 2013 regarding 2013 Export Transmission Service Rates states at page 6, "The IESO, PWU and APPrO argued that given the results of the CRA study, the appropriate ETS [Export Transmission Service] rate is zero. These parties focused on the following factors: benefits to Ontario consumers, producers and the province as a whole; enhanced market efficiency, including during SBG [Surplus Baseload Generation] events; and consistency with neighbouring jurisdictions who have zero tariffs." Page 6 also states, "The IESO submitted that compared to other options, elimination of the ETS rate would best encourage the efficient operation of the wholesale market, specifically in the generation, transmission and sale of electricity."**

(i) Does the IESO still hold the same opinion that exports are beneficial to the system, the province and the market?

(ii) Can the IESO clarify if its opinion in EB-2012-0031, specifically that the ETS charge should have been reduced to zero, was based on the notion that if faced with higher costs, exporters may no longer see the Ontario market as an economic place to do business i.e. schedule trades?

(iii) Can the IESO confirm if it is still of the opinion that increasing costs for exporters could in effect diminish the benefits that were highlighted by the IESO in EB-2012-0031?

(iv) Does the IESO agree that, all things being equal, as charges to exporters increase, the price at which they can economically purchase energy from the Ontario market to export falls? If so, does the IESO agree that the Global Adjustment costs may rise if wholesale prices are further depressed?

2-HQEM-APPrO-IR9. **Reference: In an Elenchus' May 17, 2013 report titled, "Review of Cost Allocation Policy for Unmetered Loads (EB-2012-0383)" prepared for the Ontario Energy Board, where page 5 states, "The Ontario Energy Board ("Board") initiated a Proceeding to review the Cost Allocation Policy for Unmetered Loads. Unmetered Loads refer to electricity loads such as Street Lighting, Sentinel Lighting and Unmetered Scattered Loads whose consumption is not measured by a meter. A Working Group was established with representatives from distributors, stakeholders and Unmetered Load customers. The Working Group's role was to assist Elenchus (and Board Staff) in identifying and understanding the current issues regarding Cost Allocation as it applies to Unmetered Loads and to also provide input and or suggestions as to possible solutions. The Working Group met a number of times to review the existing Cost Allocation Methodology and discuss participant's views on the existing approach."**

Page 6 of the same report states, "Good utility practice would be that distributors involve their customers in Stakeholder sessions while the distributor is preparing the rate rebasing application to the Board and before it is finalized, in order to allow the customers to understand the assumptions used in the application and the resulting impacts. This would also allow customers to provide distributors the most current information available to be used in the application."

Section 5 of the report describes sensitivity analysis done on the Cost Allocation Methodology, "Elenchus conducted sensitivity analyses based on actual utility data in order to illustrate the impact on the allocated costs for Unmetered Loads of changing a number of assumptions used in the Board's Cost Allocation Model."

Elenchus Request:

(i) Can Elenchus confirm which cost allocation study would affect a larger group of customers both by number of customers and by energy exchanged – the unmetered loads study or the IESO 2016 study?

(ii) Can Elenchus comment on the length of time involved in producing the May 2013 report – including the facilitation of working group discussions? How does that compare to the time involved in producing the 2016 report? When discussing time involved, please identify both the elapsed time from the signing of the engagement letter to the delivery of the final report, as well as the total person-hours involved in each engagement.

(iii) Was sensitivity analysis as described in section 5 of the May 2013 cost allocation study referenced above performed in the 2016 cost allocation study for the IESO? If not, why not; if so, please provide the sensitivity analyses used in this study.

(iv) Did Elenchus recommend that the IESO provide establish a working group as part of this process? If not, why not; if so, please provide the request and all related correspondence.

(v) In accordance with Elenchus' comments regarding the involvement of stakeholders on page 6 of its May 2013 report – can Elenchus justify this departure from "good utility practice" in the IESO cost allocation study?

IESO Request:

(i) Please confirm that stakeholder sessions were not held as a part of developing the IESO cost allocation study.

(ii) Can the IESO confirm – in relation to Elenchus response to question a) above that the volume of export transactions in Ontario is generally greater than the volume or capacity of unmetered loads? If so, please advise why consultations were not held as part of the scope of work for the cost allocation study done by Elenchus?

(iii) Please advise why a working group was not established as a part of the cost allocation study undertaken by Elenchus for the IESO's 2016 revenue requirement submission?

2-HQEM-APPrO-IR10. **Reference: Exhibit B-1-1, Attachment 3, page 22, "Operations Change Initiatives" line 2-6 states, "Operations Change Initiatives is a project management office leading and supporting change initiatives impacting the business unit and liaising with other business units on capital programs and business planning…Allocation method: Domestic and export in proportion to energy (TWh)."**

(i) Can the IESO clarify which of the capital projects listed on page 18 of its submission directly benefit or were caused by export customers?

(ii) Can the IESO offer the number of capital projects that it has undertaken over the last 3-5 years caused by, or for the direct benefit of export customers?

(iii) Can the IESO confirm that the Operations Change Initiatives department exists to facilitate the implementation of its Capital Plans/Projects?

(iv) If there have not been any recent capital projects caused by or for the direct benefit of the export class can the IESO or Elenchus offer comment as to why the Operations Change Initiatives budget has been allocated to exports, specifically in proportion to energy (TWh)?

(v) Going forward, given that Bill 135 gives full directive power over the IESO to the Ministry – how will the IESO as an administration control what capital plan/projects it undertakes in the future?

2-HQEM-APPrO-IR11. **Reference:, Exhibit A-2-2, page 15 of 20, Appendix 1: Corporate Performance Measures. "The IESO has an established performance management program. Central to this program are effective corporate performance measures (CPMs) that assess the organization's performance against established corporate strategic themes and objectives."**

(i) Were any of the established CPMs designed to ensure firm export or wheel through capability persists in Ontario? In other words, is the existence of firm export capability a measure of success or good performance for the IESO as a company?

2-HQEM-APPrO-IR12. **Reference: Exhibit B-1-1 and the OEB Order on the OPA 2011 Expenditure and Revenue Requirement Filing ("OEB Previous Order"). In the OEB Previous Order, the Board mentioned: "*Finally, the Board notes that the OPA did not undertake any meaningful or substantive consultation with stakeholders regarding this proposal. Should the OPA choose to re-introduce this approach now or in the future, the Board expects the OPA to <u>have engaged the stakeholder community in a relevant and substantive manner and will require that evidence of this consultation be filed in conjunction with the associated revenue requirement and fees application</u>*." (p.17, emphasis added)**

(i) Please file the evidence requested by the Board in the OEB Previous Order or otherwise that the IESO relies upon to support the allegation that it has met this requirement.

(ii) Please indicate precisely what consultations were held with stakeholders and when regarding the proposed fee, what the comments were received from stakeholders, and how the IESO incorporated this feedback into its proposal.

2-HQEM-APPrO-IR13. **Reference: Exhibit B-1-1, section 2.3, page 9, lines 25-28 state, "The key consideration is whether a fully integrated usage fee would result in equitable treatment among various types of customers that benefit from the restructured IESO role in the Ontario electricity market."**

(i) Please describe how export customers receive incremental benefit from the restructured IESO role compared to the benefit they received under the predecessor IESO's role.

(ii) Please confirm that all functions previously exercised by the OPA are now exercised by the IESO. Please advise how the functions exercised previously by the OPA have, since the merger, benefitted exporters.

2-HQEM-APPrO-IR14. **Reference: Exhibit B, Tab 1, Schedule 1, page 11, line 2 – 11 states, "…we have allocated the IESO's costs to the domestic and export classes based on a presumed causal relationship for departments that are directly involved in operating the market…Elenchus acknowledges that this approach is somewhat non-standard and as a result the revenue-to-cost ratios that are calculated may not be as indicative of a true causal relationship as can be achieved in the typical utility cost allocation model. However, we believe that the results are the best indicator available for allocating costs in a manner consistent with the IESO's existing MWh based Usage Fee. Alternate fee designs would require quite different approaches to allocating the IESO's costs."**

(i) Can Elenchus clarify what is meant by “somewhat non-standard”?

(ii) If the revenue-to-cost ratios calculated may not be as indicative of a true causal relationship as can be achieved in the typical utility cost model, why it is appropriate to use a zone of reasonableness that was linked to a typical utility cost model?

(iii) Can Elenchus clarify how it was determined that the best indicator available for allocating costs was that which was a manner consistent with the IESO’s existing MWh based Usage fee?

(iv) Can Elenchus confirm what the scope of work was as described in its engagement letter with the IESO? Was exploring alternate fee designs part of the scope? Please provide all correspondence on this issue with the IESO.

2-HQEM-APPrO-IR15. **Reference: In Elenchus’ October 22, 2015 report titled “New Brunswick Power Customer Cost Allocation Study Review” prepared on behalf of New Brunswick Power, the Executive Summary line 16 – 20 states, “In order to show the impact that each revision being considered would have on the costs allocated to NB Power’s customer classes and the corresponding impact on the revenue to cost ratios, Elenchus first established a Reference Model. This approach allows each alternate model to be compared to the Reference Model with all inputs and assumptions being identical except for the specific change being considered.”**

Request:

(i) Did Elenchus establish a “Reference Model” for the IESO’s cost allocation study so that specific changes could be compared to the reference model? If so, please produce it. If not, why not?
(ii) Why weren’t iterations of the model and its resulting revenue-to-cost ratios included in the cost allocation study as IESO evidence?

2-HQEM-APPrO-IR16. **Reference**: **On page 3 of the same report, section 2.2 “Stakeholder Engagement Process” line 18 – 25 states, “A further implication of the reality that there is no definitive single correct approach to allocating NB Power’s costs to its customer classes is the importance of stakeholder input. Every stakeholder has legitimate concerns and interests that need to be recognized and taken into account when developing a consistent and equitable CCAS methodology. Two stakeholder engagement meetings were conducted at which Elenchus outlined its approach to this assignment and its preliminary view on the issues. The stakeholders were given the opportunity to question Elenchus on its approach and were invited to explain their views on the issues being considered.”**

(i) Did Elenchus recommend the importance of recognizing and allowing for stakeholder concern to the IESO? If yes, please produce the recommendation and all correspondence respecting the recommendation. If not, please explain why stakeholders were not involved in the IESO cost allocation study.

2-HQEM-APPrO-IR17. **Reference**: **On page 5 of the same report, section 3, line 17 – 26 states, "Prices charged to customers that are based on asset utilization are considered to be cost-based and this is one of the main criteria used in a cost allocation study methodology. Other criteria that are sometimes used in establishing a cost allocation study methodology are:**

- **Benefit derived from asset utilization;**
- **Consistency with government policy, e.g. conservation;**
- **Simplicity; and**
- **Acceptability;**

More than one criterion may also be used in developing an acceptable cost allocation study methodology."

(i) Please produce its work-plan or scope of work for the New Brunswick cost allocation study and its work-plan or scope of work on the cost allocation study done for the IESO?

(ii) Can Elenchus compare the total number of pages and the total number of exhibits in the New Brunswick report and the IESO report?

(iii) Did Elenchus consider any of the other criteria that it describes on page 5 of its report as sometimes being used in establishing a cost allocation study methodology in the IESO case (i.e. Benefit derived from asset utilization; Consistency with government policy, e.g. conservation; Simplicity; and Acceptability)? If so please explain how and what criteria was ultimately decided on.

2-HQEM-APPrO-IR18. **Reference: On page 8 of the same report Elenchus states, "Consequently, revenue to cost ratio ranges are usually established in order to determine whether a customer class is paying its fair share of costs. A revenue to cost ratio range between 0.95 and 1.05 or 0.90 to 1.10 is generally considered to mean that the customer class is paying its fair share of the costs imposed on the utility based on the cost allocation study methodology."**

Request:

(i) In accordance with Elenchus' comments on page 8 of its New Brunswick report – why wasn't this range of 0.95 – 1.10 recommended as an option in the Ontario cost allocation study? Can Elenchus explain how distribution customer classes (as analyzed in each of New Brunswick and Ontario) differ enough so as to justify a wider zone of reasonableness for customer classes in Ontario?

2-HQEM-APPrO-IR19. **Reference: In Elenchus evidence filed as Exhibit B-1-1, Attachment 3 of the IESO's 2016 revenue requirement submission section 1, page 6, lines 11-13 state, "The key considerations in assessing these options are the principles of administrative simplicity and equity, where equity is indicated by the level of the actual or implicit revenue-to-cost ratios of the classes under each option." Additionally on page 9 line 23 states, "It is evident that a fully integrated IESO usage fee would avoid complexity."**

In section 2.3, page 9, lines 25-28 state, "The key consideration is whether a fully integrated usage fee would result in equitable treatment among various types of customers that benefit from the restructured IESO role in the Ontario electricity market." Then in section 2.4, page 10, lines 2-4, Elenchus states, "The assignment given to Elenchus by the IESO was to develop a cost allocation model that would allocate the IESO's costs in a manner consistent with standard regulatory cost allocation principles and practices, in particular the principle of cost causality."

(i) The IESO fee has been charged since it was created (under a different name) in 2002. The OPA was established in 2004 and with it came the OPA fee for customers in Ontario only. Please confirm that since 2004, two separate fees have been charged?

(ii) If the answer to 1.2(a) is yes, please confirm that existing settlement systems can currently accommodate charging separate fees?

(iii) If existing systems accommodate charging the fees separately, why would continuing to charge separate fees add increased administrative burden?

(iv) Please quantify the costs of changing the current system to charge a single fee.

(v) Please confirm which of the principles referred to or alluded to in the study (section 2.3 and 2.4) as being key considerations (administrative simplicity, equity and cost causality) were most important to the IESO. If they were all considered equally "key" principles how was the value of administrative cost – as it relates to determining the administrative simplicity of having a uniform rate versus two separate rates -- quantified by Elenchus?

2-HQEM-APPrO-IR20. **Reference: In Elenchus evidence filed as Exhibit B-1-1, Attachment 3 of the IESO's 2016 revenue requirement submission section 4.1, page 13, lines 25–page 14 line 6 state, "With respect to the OPA portion of the merged revenue requirement, this approach would implicitly implement methodology that was not accepted by the OEB when it was proposed by the OPA in its 2011 fees application, EB-2010-0279. Based on the OEB's Decision and Order in that proceeding, which is quoted above, it would not be appropriate for this approach to be implemented unless it can be shown analytically that there is not a significant difference in the causal costs associated with domestic and export customers if viewed as distinct customer classes."**

(i) Please clarify what the OPA portion of the merged revenue requirement is in dollars, as referred to here, and estimate the cost of the portion that relates to Ontario electricity system planning functions.

2-HQEM-APPrO-IR21. **Reference: In Elenchus evidence filed as Exhibit B-1-1, Attachment 3 of the IESO's 2016 revenue requirement submission section 4.3, page 14, lines 17–19 state, "This IESO cost allocation model is methodologically consistent with the OEB-approved model that allocates the costs of electricity distributors to their customer classes."**

(i) Please detail the reasons that the OEB-approved model and range for distribution customer classes was considered by Elenchus to be an appropriate benchmark when determining equitable rate treatment for domestic and export customer classes.

2-HQEM-APPrO-IR22. **Reference: Elenchus evidence Exhibit B-1-1, Attachment 3 of the IESO's 2016 revenue requirement submission section 5, page 17, lines 9-12 state, "The functionally-classified costs are allocated to two 'customer classes', or types of service: domestic and export. These classes are analogous to the customer classes served by distributors in that they are easily identifiable and 'cause', or benefit from, the transmission system and therefore the activities/services of the IESO in different ways."**

(i) Please clarify the customer classes served by distributors and the identifiable causes and benefits that those customer classes receive from their distributor. What "easily identifiable" benefits do each of these customer classes in a distribution system receive?

(ii) What additional easily identifiable benefits do export customers receive subsequent to the IESO-OPA merger that they did not receive prior to the merger?

(iii) Please elaborate on which distribution customer class out of the ones described above most closely resembles an export customer in a transmission system.

2-HQEM-APPrO-IR23. **Reference: Elenchus evidence Exhibit B-1-1, Attachment 3 of the IESO's 2016 revenue requirement submission section 1, page 6, lines 15-20 state, "…it is noted that the revenue to cost ratios for the separate classes if a single usage fee is adopted would be 97.88% and 119.32% for the domestic and export customer classes, respectively. Using a revenue-to-cost ratio range of 80% to 120%, which is the Board-approved range for the rates of most distribution customer classes, it can be concluded that the uniform rate would be deemed equitable for both classes of customers."**

(i) What assumptions would need to change in the model for the revenue-to-cost ratio to exceed 120% for the export customer class? Did Elenchus perform any sensitivities related to its analysis? If so, please discuss.

(ii) Please clarify what is meant by "approved range for the rates of **most** (emphasis added) distribution customer classes" – by "most" does Elenchus mean to say that there are distribution customer classes that do not use this range? If so, why not?

(iii) Can Elenchus describe what revenue-to-cost ratio range, or in other words, what zones of reasonableness ("ZORs") are used in other states and provinces, and how the range in Ontario compares?

2-HQEM-APPrO-IR24. **Reference: The Elenchus evidence Exhibit B-1-1, Attachment 3 of the IESO's 2016 revenue requirement submission page 6, lines 20–23 states, "Rates within a Board approved range are not considered to be either under-collecting or over-collecting the causal costs related to a customer class, given the degree of uncertainty inherent in cost allocation and the degree of judgement required to other ratemaking principles."**

(i) Can Elenchus confirm that by this statement, it means to say that there is a 20% uncertainty in cost allocation? What are the particular sources of this uncertainty?

Once a particular cost allocation has been determined, why is there any uncertainty at all thereafter?

(ii) Can Elenchus clarify what other ratemaking principles were accommodated in its study besides the revenue-to-cost principle?

(iii) Please advise whether there are data quality issues that prevent a revenue to cost ratio of greater than 1:1?

(iv) Please advise whether the IESO has current plans to improve its accounting and load data to see if there modifications that can be made to permit a revenue to cost ratio of closer to 1:1.

(v) Please advise whether, with more experience in cost allocation concepts, the IESO expects to be better able to achieve a revenue to cost ratio of 1:1.

2-HQEM-APPrO-IR25. **Reference: In its original report dated January, 2016, Elenchus estimated the cost allocation ratio for exporters would be 114.3%. Its new evidence (May, 2016), increases the subsidy from exporters to domestic customers from 14.3% above unity to 19.32 % above unity, an increase in the subsidy by close to 26% in just 3 months. This dramatic change resulted despite the fact that both the increase in total costs and the increase in total volumes was, in each case, less than .01%.**

(i) Please explain the factors that led to such a large proposed increase in subsidy from such a relatively small change in underlying costs and volumes.

(ii) Please advise what the revenue to cost ratios have been for exporters since the IESO first began charging exporters a usage fee.

(iii) Please provide copies of cost allocation studies used to support charging the IESO's existing fee to exporters.

(iv) The OEB's November 28, 2007 Report on Application of Cost Allocation for Electricity Distributors (EB-2007-0667), stated at p. 6: "A principle of rate making is that rate stability in most instances is desirable. Rates should not be constructed in a manner that leads to subsequent counter directional changes. The Board considers it appropriate to avoid premature movement of rates in circumstances where subsequent applications of the model or changes in circumstances could lead to a directionally different movement. Rate instability of this nature is confusing to consumers, frustrates their energy cost planning and undermines their confidence in the rate making process" (emphasis added)

Please advise how Elenchus considered the need for stability in developing its model.

(v) In the same report, the OEB stated that "A principle of rate making is the avoidance of rate shock. Proposed rate changes should consider the ability of consumers to react to their new costs" (p.6). Exporters current pay a usage fee of $.803/MWh. If the IESO's proposal is accepted, Exporters will be paying a usage fee of $1.13/MWh: an increase of 41%. Please provide evidence of how Elenchus considered rate shock in developing this proposal.

2-HQEM-APPrO-IR26. **Reference: In Elenchus evidence Exhibit B-1-1, Attachment 3 of the IESO's 2016 revenue requirement submission page 13, line 22-25 states, "In light of the concerns raised previously with respect to charging the OPA fee to export customers, it is evident that implementing a single standard IESO fee for domestic and export customers would be inequitable if it resulted in a level of cost recovery from export customers that is not consistent with cost causality principles."**

(i) Can Elenchus confirm that since the allocation study performed determined export customers revenue-to-cost ratio (119.32%) was at the edge of the allowable zone of reasonableness of 120%, even a minor change to the study's assumptions could push the export class outside of the zone of reasonableness, thereby making the IESO proposal inconsistent with cost causality?

2-HQEM-APPrO-IR27. **Reference: In Elenchus evidence Exhibit B-1-1, Attachment 3 of the IESO's 2016 revenue requirement submission page 15, line 12-13 states, "The range of acceptable R/C ratios for electricity distributors is set out in the OEB's March 31, 2011 Report…" In the OEB's March 31, 2011 report referenced by Elenchus above, section 2.9.4 "The Board's Approach", page 36 states, "As indicated in its September 2, 2010 letter, the Board expects that with the installation of smart meters and the availability of sufficient smart meter data, better cost allocators for the CA Model will become available and a more comprehensive review of the Board's cost allocation policies will become feasible. The Board anticipates that such a comprehensive review may provide an opportunity to further refine its target ranges. In the meantime, the Board's policy remains that distributors should endeavour to move their revenue-to-cost ratios closer to one if this is supported by improved cost allocations."**

(i) Please advise what steps Elenchus has taken to try to move the IESO's revenue to cost ratios to unity.

(ii) What would the rate be if it produced a revenue cost ratio of 1:1?

2-HQEM-APPrO-IR28. **Reference: In Elenchus evidence Exhibit B-1-1, Attachment 3 of the IESO's 2016 revenue requirement submission page 16, Table 2 "Revenue-to-Cost Ratio Ranges" contains a "Large User" service class and "Residential" service class with the corresponding ranges of 85 – 115%.**

On page 16, lines 9-11 states, "…if either R/C ratio is outside of the OEB-approved range, then it may justify establishing separate domestic and export classes for the purposes of the IESO usage fee."

(i) Given that Table 2 shows two large classes for which the upper bound of the target range is reached at 115%, and that exporters may well be considered "large users", isn't it true that 115% could be a plausible threshold for the export class range, and thus the proposal would be inequitable since exporters would be outside of the range of reasonableness? If so, would separate rates be justified?

Issues 2.2 and 2.3: Is the Methodology used to derive the proposed IESO Usage Fee of 1.13/MWh appropriate?

2-HQEM-APPrO-IR29. **Reference: Cost Allocation and Rate Design for the 2016 Fees of the IESO ("Elenchus Report"), Exhibit B-1-1, Attachment 3, p. 11. "The evidence states that Elenchus' approach results in revenue-to-costs ratios that may not be as indicative of "a true causal relationship as can be achieved in the typical utility cost allocation model. However, we believe that the results are the best indicator available for allocating costs in a manner consistent with the IESO's existing MWh based Usage Fee."**

(i) Please advise why Elenchus believes that "allocating costs in a manner consistent with the IESO's existing MWh based Usage Fee" is the appropriate criteria for evaluating revenue to cost ratios?

(ii) What criteria other than consistency with the IESO's existing MWh based Usage fee did Elenchus consider? If none, why did Elenchus not consider other criteria?

(iii) The evidence states that "Alternative fee designs would require quite different approaches to allocating the IESO's costs." Please identify what "Alternative fee designs" are contemplated in this statement.

(iv) Please provide all analysis undertaken by reference to "alternative fee designs".

(v) Please advise of the criteria used by Elenchus to determine that "alternative fee designs" should not be applied.

(vi) Please advise whether the decision to not consider alternative fee designs was made by the IESO or by Elenchus.

2-HQEM-APPrO-IR30. **Reference: Cost Allocation and Rate Design for the 2016 Fees of the IESO ("Elenchus Report"), Exhibit B-1-1, Attachment 3, s. 5.1.1. The exhibit provides the allocators used for each department within each business unit of the IESO.**

(i) Please provide further rationale and provide metrics developed or applied by Elenchus, supporting the choice of the proposed allocator for each of the following departments, with emphasis on the allocation to "exports" as opposed to a domestic customer allocation only:

  (a) Market Forecast and Integration (allocator proposed : Pro-Rated to Export TWh);

  (b) Interest (allocator proposed : Pro-Rated to Export TWh);

  (c) Reliability Assessments (allocator proposed: Pro-Rated to Export TWh); and

  (d) Operational Effectiveness (allocator proposed: Pro-Rated to Export TWh)

2-HQEM-APPrO-IR31. **Reference: Cost Allocation and Rate Design for the 2016 Fees of the IESO ("Elenchus Report"), Exhibit B-1-1, Attachment 3, s. 5.1.1.**

(i) Please specify how Elenchus allocated "Total Other OM&A" among export and domestic load.

2-HQEM-APPrO-IR32. **Reference: Cost Allocation and Rate Design for the 2016 Fees of the IESO ("Elenchus Report"), Exhibit B-1-1, Attachment 3, p. 34. The evidence states that "the size of the business units is influenced by the scale of the overall electricity market in Ontario."**

(i) Please advise of annual percentage changes to the size and expense of the business units referred to in the evidence and the annual percentage changes to electricity production and consumption in Ontario over the last five years.

The evidence states that "it is reasonable to view the benefit that is derived by participants in the market as being proportionate to the volume of energy transmitted."

(ii) Please confirm that the IESO's costs do not change by reference to the volume of electricity transmitted.

2-HQEM-APPrO-IR33. **Reference: Cost Allocation and Rate Design for the 2016 Fees of the IESO ("Elenchus Report"), Exhibit B-1-1, Attachment 3, p. 35. The evidence states that, "Unlike the transmission system itself, all of the IESO's costs are most logically associated with (or caused by) the energy throughput of customers."**

(i) Please explain how the IESO's costs differ from transmission with respect to the relevance of the throughput of customers.

2-HQEM-APPrO-IR34. **Reference: Elenchus Study, Exhibit B-1-1, Attachment 3 and Exhibit B-1-2**

(i) Please provide a sensitivity analysis developed or applied by Elenchus of the "Revenue to Cost Ratios" for changes in the following variables:

(a) Total demand forecast

(b) Export demand forecast

(c) Costs allocated to domestic consumers

(d) Costs allocated to export consumers.

2-HQEM-APPrO-IR35. **Reference: In Elenchus evidence Exhibit B-1-1, Attachment 3 of the IESO's 2016 revenue requirement submission page 19, line 5 shows that the allocation method for the IESO's NERC membership is split 50:50 between domestic and export.**

(i) Please confirm that this is the only category that is split 50-50.

(ii) What is the justification for using this methodology? Why isn't a pro rata allocation by TWh more appropriate?

(iii) If Ontario had no exports, but maintained interconnections purely for short term reliability sharing purposes, wouldn't IESO still need to be a NERC member? If so, would it follow that under such circumstances domestic load would be the causal factor?

(iv) Can Elenchus advise how a NERC membership cost split based on TWh would affect the revenue-to-cost ratios and in turn the validity of the study?

2-HQEM-APPrO-IR36. **Reference: Elenchus evidence Exhibit B-1-1, Attachment 3 of the IESO's 2016 revenue requirement submission page 20, "Connections and Registrations".**

(i) Is it reasonable to assume that domestic load would have more connections per TWh than exports?

(ii) If so, could this category be allocated pro rata by the number of connections and registrations, rather than by energy (TWh)?

(iii) How different would the resulting allocation be?

2-HQEM-APPrO-IR37. **Reference: Elenchus evidence Exhibit B-1-1, Attachment 3 of the IESO's 2016 revenue requirement submission page 26, "Stakeholder and Public Affairs".**

(i) What benefit do exporters receive from Stakeholder and Public Affairs?

(ii) Has this benefit to exporters increased since the merger?

(iii) If exporters receive little to no benefit from this department, why should its costs be allocated in proportion to energy (TWh)?

2-HQEM-APPrO-IR38. **Reference: Elenchus evidence Exhibit B-1-1, Attachment 3 of the IESO's 2016 revenue requirement submission page 32 - 33, "Amortization".**

(i) Is it true that amortization is based on assets that support all IESO departments?

(ii) If some departments are allocated entirely to domestic customers, does that mean that the allocation of all of the costs of the departments between domestic and export customers is going to be different from that derived from pro rata allocation of all costs?

(iii) Is it true that allocation of costs to exporters in total will be less than that derived from pro rata allocation of energy?

(iv) If amortization is based on assets that serve all departments, and not all department costs are allocated pro rata, shouldn't allocation of amortization be based on the proportion of total costs allocated to exporters, rather than pro rata based on energy?

2-HQEM-APPrO-IR39. **Reference: EB-2010-0219 Report of the Board – Review of Electricity Distribution Cost Allocation Policy March 31, 2011 page iii states, "The Board's policy remains that distributors should endeavour to move their revenue-to-cost ratios closer to one if this is supported by improved cost allocations." Page 5 in section 2.9.4 titled "The Board's Approach" states, "To the extent that the application of the Board's cost allocation policies results in a significant shift in the rate burden amongst classes relative to the status quo, distributors should be prepared to address potential mitigation measures."**

(i) In preparing its evidence for the IESO did Elenchus consider if improved cost allocations might be realized if revenue-to-cost ratios were closer to one as opposed to in the range of 0.8 – 1.2?

(ii) Can Elenchus comment on whether or not an increase in the IESO fee to the proposed $1.13/MWh from the status quo $0.803/MWh (an increase of 40%) is considered a significant shift in the rate burden for export customers relative to the status quo?

(iii) Was Elenchus mandated by the IESO to potentially prepare any mitigation measures for the shift in rate burden for the export customer class?

2-HQEM-APPrO-IR40. **Reference: Cost Allocation Policy Review – Options and Preferred Alternatives prepared by Elenchus (October 15, 2010), on page 41 Elenchus states, "Some stakeholders argued that the revenue:cost ratio should be as close as possible to one or should even be one, since any deviation from a value of one means that customer classes with revenue:cost ratio above one are subsidizing customer classes with revenue:cost ratios below one." The table on 42 of the same report provides "a summary of the range of revenue:cost ratios approved by the Board, based on what distributors have filed in their cost allocation studies are shown below." On page 43 of the same report it states, "Option #5 is recommended because it provides different and narrower ranges of revenue:cost ratios for these three customer classes…The proposed narrowing of the revenue:cost ratio range reflects the fact that distributors have by now gained experience with using the cost allocation model. Some of the refinements considered in this policy review will improve the quality of the cost allocation model results."**

(i) Does Elenchus continue to agree with the OEB 2010 Report that it is advisable to try to narrow the revenue-to-cost ratio range? Where is this addressed in Elenchus' evidence?

(ii) Does Elenchus agree with the stakeholder comments highlighted in the 2010 report in that a ratio above one would indicate that one customer class is subsidizing another?

(iii) In its recommendation to the IESO Elenchus concludes that "the revenue to cost ratios for the separate classes if a single usage fee is adopted would be 97.88% and 119.32% for the domestic and export classes, respectively" – can Elenchus confirm that it is recommending export customers subsidize domestic customers in Ontario?

(iv) In regards to the table on page 42 of its 2010 Cost Allocation Policy Review can Elenchus confirm that none of the distributors had General Service customers (50kW to 4,999kW) with a revenue-to-cost ratio equal to the highest limit range – in this case 120%?

2-HQEM-APPrO-IR41. **Reference: In EB-2012-0031, OEB Decision and Order dated June 6, 2013 regarding 2013 Export Transmission Service Rates states at page 4, "HQEM engaged Elenchus Research Associates ("Elenchus") to assess how the ETS rate should be set…Elenchus recommended applying the principle of cost causality to determine the ETS rate and suggested that it could be achieved by creating a separate rate class for exporters." Page 5 of the same document states, "APPrO and HQEM submitted that export customers are treated differently than domestic customers…the Ontario transmission system was designed and built to serve domestic load; export customers use only excess capacity and therefore impose no incremental cost…export customers in Ontario, unlike exporters in other jurisdictions, can be curtailed…export service should be viewed as interruptible service when setting appropriate rates."**

(i) Can Elenchus confirm it provided evidence in EB-2012-0031 and that it recommended a separate rate class for exporters because of the reasons quoted above?

(ii) Given that exports are curtailable before domestic load, and that they therefore do not receive an equivalent service to the domestic service, please advise of the facts that Elenchus relies upon to support its position that it is now equitable to charge them as if they were receiving the same quality of service? Following on the citation in the reference to Interrogatory #13, what is the basis for Elenchus' current view that it is "equitable" to increase costs to a customer class that receives an inferior level of service?

(iii) Can Elenchus clarify then, that export customers, due to the fact that they may be curtailed by the IESO, actually provide reliability services to domestic customers? If export customers are being charged the same fee as domestic customers, how are export customers being compensated for the reliability service they provide?

2-HQEM-APPrO-IR42. **Reference: In proceeding EB-2012-0031 "Hydro One Transmission 2013-2014 Revenue Requirement" Elenchus prepared a report for HQEM titled, "Ontario Cost Allocation and Export Tariff Service – October 1, 2012". Page 4, line 23-page 5 line 3 states, "With respect to interruptible rates, Bonbright's book on page 402 'Interruptible Rates Considered' states that: 'The company might also instigate lower charges for interruptible sales', (emphasis added) and on page 403 it continues and states that: '…interruptible power may be curtailed or interrupted if conditions arise that are burdensome to the supplier. In short, the interruptible customer is buying lower quality service that a cost incurrence philosophy would deem appropriate for a lower rate.' On the same page, Bonbright states: 'Interruptible customers are charged lower rates since they do not have any demand or capacity costs.'"**

Page 5, line 15-17 of the same report by Elenchus states, "…deviations from this principle [cost causality] should result from an explicit determination of appropriateness of any departure from pure cost causality. By definition, such departure creates cross-subsidies among customers…"

(i) Can Elenchus explain why its comments made in 2012 regarding lower rates for curtailable, or "interruptible" customers were not explored in the cost allocation study evidence it prepared in support of the IESO's 2016 revenue requirement submission?

(ii) Please confirm that with export customers at a revenue-to-cost ratio of 119.32% they are subsidizing domestic customers. If so, please advise why export customers should provide this subsidy other than the fact that the OEB tolerates temporary and unavoidable cross-subsidies among electricity distribution customers.

(iii) What is the amount of the subsidy in dollars per year that exporters will provide to domestic customers under this regime?

2-HQEM-APPrO-IR43. **Reference: In proceeding EB-2012-0031, "Hydro One Transmission 2013-2014 Revenue Requirement" Elenchus prepared a report for HQEM titled, "Ontario Cost Allocation and Export Tariff Service – October 1, 2012". Page 11, section 3.1 "Criteria for Establishing the ETS Tariff" line 10-page 12 line 2 states, "It is our view that the OEB should be setting the ETS tariff using the same principles of cost causality that the OEB applies in setting Transmission and Distribution rates in Ontario for domestic customers. A separate rate class should be explicitly created for exporters as interruptible customers and an appropriate ETS tariff should be determined. Exporters are already considered a different customer class since no transmission capacity is built to satisfy their needs and the IESO, as per its market rules, treats exporters as interruptible load while domestic customers are treated as firm load."**

(i) Please provide the evidence and analysis that Elenchus relies upon to support treating domestic and export customers the same under the IESO 2016 fee proposal evidence when in 2012 it highlighted the inherent difference in the classes and proposed the creation of a separate and distinct rate class? Please advise if there have been market rule changes undertaken to treat exporters as firm load that has led to this change in position.

2-HQEM-APPrO-IR44. **Reference: The Ontario Energy Board has stated the following with respect to applicants applying for retroactive rates: "the Board cautions the parties that, because retroactive rates do not give accurate price signals in the market and may result in inter-generational subsidization, the Board does not generally endorse retroactive rate-making. In the future, the Board expects the Company to provide cogent evidence and rationale as to the reasons why rates should be retroactive" (RP-2000-0040, para. 2.2.8).**

(i) Please advise what evidence the applicant is relying upon to meet the Board's expectations.

Issue 2.5 What would be an appropriate effective date for the Usage Fees(s) approved within this proceeding.

2-HQEM-APPrO-IR45. **Reference: Exhibit B, Tab 1, Schedule 1, p. 7. The IESO proposes that, in the month following the Board's decision, the IESO would like to charge customers or provide rebates to customers for fees paid since January 1, 2016.**

(i) Please identify how much domestic and export customers will either receive or pay if the Board approves the IESO's proposal on, for example, September 1, or December 1, 2016.

(ii) Given that the merger took place on January 1, 2015, please advise why the IESO did not bring a timely application for new fees in place for January 1, 2016.