October 14, 2016

BY EMAIL & BY COURIER

Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
2300 Yonge St, Suite 2701
Toronto ON M4P 1E4

Dear Ms. Walli:

Board File No. EB-2015-0275
Independent Electricity System Operator --- Fiscal 2016 Fees Submission for Review
Energy Probe – Unsettled Issue Submissions

Pursuant to Procedural Order No. 4, issued September 28, 2016, please find attached the Unsettled Issue Submissions of Energy Probe Research Foundation (Energy Probe) to the Independent Electricity System Operator in the EB-2015-0275 proceeding for consideration of the Board.

Should you require additional information, please do not hesitate to contact me.

Yours truly,

David S. MacIntosh
Case Manager

cc. Adrian Pye, Independent Electricity System Operator (By email)
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EB-2015-0275

IN THE MATTER OF section 25 (1) of the *Electricity Act, 1998*;

AND IN THE MATTER OF a Submission by the Independent Electricity System Operator to the Ontario Energy Board for the review of its proposed expenditure and revenue requirements for the fiscal year 2016 and the fees it proposes to charge during the fiscal year 2016

Submissions of
Energy Probe Research Foundation

October 14, 2016

Independent Electricity System Operator
Application for approval of 2016 revenue requirement, expenditures and fees

Summary of Energy Probe Submissions

Energy Probe accepts that the costs of both the OPA and IESO services should be combined into one IESO fee. Energy Probe also accepts IESO's proposal to charge the fee on a gross load basis, rather than net load.

We have difficulties with the (Elenchus) Cost Allocation methodology, which relies, primarily, on an arbitrary division of IESO costs into three "baskets" – domestic, export and "equally" – of the agency's various departments. We question whether the precision of this breakdown is better or worse than the IESO's forecast of domestic consumption and energy exports and how those forecasts impact the allocation of IESO's fees.

Despite these reservations, the result of the Cost Allocation study shows similar unit costs per MWh for domestic and export services. Therefore, Energy Probe supports a single fee based on administrative simplicity.

In addition, it would inappropriate to implement different fees for domestic and exports customers, unless there is a specific, Board-approved mechanism – such as a deferral or variance account – to true up any revenue shortfall from exports.

Since the 2016 fiscal year is almost over, and it would be inappropriate to provide charges or rebates until the Board has reached a decision on whether IESO should charge a or single or differentiated fee.

If the Board Issues its Decision prior to the start of 2017, the 2016 fee adjustments could be dealt with in the Order for 2017 interim fees.

1. How this Matter came before the Board

1.1 The Independent Electricity System Operator (IESO) filed an application with the Ontario Energy Board (OEB) on January 20, 2016 under section 25(1) of the *Electricity Act, 1998*, seeking approval for the IESO's 2016 expenditures, revenue requirement and fees.

1.2 As a result of the merger of the IESO and the Ontario Power Authority (OPA), the IESO is currently collecting two approved fees, namely, the former IESO fee of $0.803 per MWh and the former OPA fee of $0.439 per MWh. On December 22, 2015, the Board issued a Decision and Interim Order making these fees interim as of January 1, 2016.

1.3 A settlement conference was held on August 17 and 18, 2016. On September 7, 2016, the IESO filed a settlement proposal for the OEB's approval reflecting an agreement on all

issues on the Issues List except Issue 2.01, which concerns the IESO's proposal for a single usage fee.

1.4 Pursuant to Procedural Order No. 3, OEB staff filed a submission on September 14, 2016 supporting the proposed settlement.

1.5 In its cover letter accompanying the settlement proposal, the IESO requested that the unsettled issue be heard by way of a written hearing.

1.6 In a letter dated September 9, 2016, HQ Energy Marketing (HQEM) and the Association of Power Producers of Ontario (APPrO) jointly stated that they do not oppose the IESO's request for a written hearing, but asserted that the IESO's evidence on the unsettled issue is inadequate to support its proposal on the usage fee and that there are disputes as to facts relevant to that issue.

1.7 On September 23, 2016, in response to a request for clarification of their position from the OEB, HQEM and APPrO reiterated that they are not opposed to a written hearing and explained that they do not consider the record to be incomplete.

1.8 In Procedural Order No 4 the Board Directed that:

The IESO shall file a submission on the unsettled issue with the OEB and serve it on all parties by October 7, 2016. OEB staff and intervenors that wish to make submissions on the unsettled Issue 2.0 shall file their submissions with the OEB and serve them on all parties by October 14, 2016.

1.9 The IESO filed its Argument in Chief (AIC) on October 7, 2016.

Issue 2.0 includes the following sub-issues:

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?
2.2 Is the methodology used to derive the proposed IESO Usage Fee of 1.13/MWh appropriate?
2.3 Is the proposed cost allocation study in support of the proposed IESO Usage Fee appropriate?
2.4 Is the IESO's proposal to charge the proposed single IESO Usage Fee from January 1, 2016 and to refund (or charge) market participants the difference between the 2016 single Usage Fee and the interim usage fees they paid, if any, based on their proportionate quantity of energy withdrawn, which may include scheduled exports and embedded generation, in 2016, appropriate?
2.5 What would be an appropriate effective date for the Usage Fee(s) approved in this proceeding?

2. Energy Probe Submissions on Issue 2.0

Issue 2.1 Elimination of OPA Usage Fee and Charging a Single IESO Usage Fee

2.1.1 Energy Probe suggests there are two distinct sub-issues

- Elimination of OPA fee; and
- Charging an appropriate new single fee to all market participants.

2.1.2 As a result of the merger, the IESO is currently collecting two fees – one for the former IESO ($0.803/MWh), and one for the former OPA ($0.439/MWh). Both fees are currently charged on different bases – the IESO fee is recovered on a gross load basis from both export and domestic customers, whereas the OPA fee is recovered on a net load basis, solely from domestic customers.

2.1.3 Since the merger of OPA and IESO in 2014-2015, the functions of OPA and IESO have been combined. Accordingly, Energy Probe accepts that it is appropriate that the costs of the services are combined and charged on a gross load basis. Recovering fees on a net load basis is no longer reasonable, given both the rise of embedded generation and the lack of evidence to suggest that increased embedded generation materially lowers the agency's costs.

2.1.4 Specifically, the *Electricity Act, 1998,* as amended, includes a variety of objects for the IESO:

- directing the operation and maintaining the reliability of the IESO-controlled grid
- participating in the development of standards, and enforcing criteria and standards relating to the reliability of the integrated power system
- working with the responsible authorities outside of Ontario to co-ordinate the IESO's activities
- operating the IESO-administered markets
- collecting and making public information relating to the short-term, medium-term 17 and long-term electricity needs of the province

2.1.5 However, in our view, the charging of a single IESO fee (rate) is appropriate ***only if the costs of the major IESO services are similar, as demonstrated by a Cost Allocation Study***.

The major services include:

- Managing Domestic Load
- Managing Exports
- Managing Dispatch of Generators

2.1.6 The costs incurred by the IESO in providing each of these services include d*irect and indirect costs*. We submit that "Cost Allocation 101" requires that any cost allocation study should identify and quantify these costs in order to determine the "rate(s)" that should be applied to different customers.

2.1.7 In response to HQEM/APPrO, IESO indicates:

> Costs associated with the implementation of alternative rate designs, if significant, would be a consideration in the rate design step in ratemaking, *not cost allocation*. The IESO notes that the difference in administrative costs for a uniform versus two separate rates would not be significant, as described above. The current IESO billing system accommodates fees with different domestic and export customers[1].

2.1.8 Accordingly, we suggest that the major issue is whether the Elenchus Cost Allocation Study[2] submitted by IESO as part of its application is appropriate and reasonably allocated costs. The secondary issue is whether there is a reasonable basis to charge separate rate(s) for each service, or whether the result supports a common fee for all services.

Issue 2.2 Is the methodology used to derive the proposed IESO Usage Fee of 1.13/MWh appropriate?

2.2.1 The derivation of the 2016 Usage Fee is described in the IESOs evidence[3]:

> The IESO's usage fee is calculated by subtracting forecast revenues from its operating costs to achieve a net revenue requirement of $181.1 million*. The net revenue requirement is divided by the Ontario electricity forecast volumes of 138.7 TWh, (Allocated Quantity of Energy 3 Withdrawn ("AQEW")) less line losses of 3.1 TWh, plus electricity exports of 17.9 TWh (Scheduled Quantity of Energy Withdrawn ("SQEW")) and embedded generation of 6.6 TWh. The resulting usage fee is charged on a per MWh basis.
> *Net of $1 million in Registration Fees

2.2.2 The IESO is proposing to change its fee structure to include energy volumes equal to the output for generation embedded in local distribution networks in the one fee it is proposing. Currently, those volumes are not included in the determination of the OPA fee because the fee is based on withdrawals net of embedded generation.

2.2.3 The Calculation of the 2016 usage fee is based on forecasts for domestic load, line losses, embedded generation and exports in 2016. These forecasts are, inherently, subject to variation. In order to keep the IESO "whole" the Forecast Variance Deferral Account (FVDA) records the actual annual revenue and a true up occurs in the next year.

2.2.4 The IESO has provided the 18 month forecast of volumes used in the determination of the 2016 Usage Fee.[4]

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[1] Exhibit I Tab 2.1 Schedule 6.19 HQEM-APPrO 19 Page 2 (v)
[2] Exhibit B Tab 1-1, Attachment 1
[3] Exhibit B Tab 1 Schedule 1
[4] Exhibit B Tab 1 Schedule 1 Page 6

Table 2: Charge Determinant Calculation for 2016 IESO Usage Fee

(TWh)	2016
18 Mth Outlook demand Forecast	138.7
Less Transmission Line Losses	3.1
Add Exports	17.9
Add Embedded Generation	6.6
Total Energy Volumes (gross TWh)	160.1

2.2.5 The Methodology for the proposed 2016 fee is different that of the previous OPA and IESO fees, as the OPA fee was based on net load basis from domestic customers only.

2.2.6 Accordingly, we suggest that as noted earlier, the central issue remains whether there should be a single IESO fee for both domestic and export customers or whether separate fees should be charged to each class of market participants based on cost causality principles.

This places the focus on the Elenchus Cost Allocation Study.

Issue 2.3 Is the proposed cost allocation study in support of the proposed IESO Usage Fee appropriate?

2.3.1 The IESO submits that

its activities are not compatible with a methodology that seeks to allocate costs on the basis of customer "classes". The proposed single usage fee is simple to understand and administer and it is fair and equitable in that it charges for the usage of IESO services as measured by energy purchases.

Nevertheless, given the comments about a lack of empirical evidence in the Board's EB-2010-0279 Decision regarding the determination of the OPA's 2011 usage fee, the IESO retained Elenchus to prepare a cost allocation study[5]

2.3.2 The Elenchus Cost Allocation Study was completed in May 2016. The Study attempts to allocate IESO's 2016 forecast unit costs ($/TWh) to domestic and export functions. The IESO departments allocated their projected costs to the domestic and export functions, and/or indicated that the costs were incurred equally.

2.3.3 Elenchus notes:

The model we have developed does not include those other system O&M costs, 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. Support functions for these departments are then allocated in a manner similar to the usual treatment of A&G costs as outlined in the NARUC Manual.

[5] IESO AIC Page 7 paragraphs 18-19

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.[6]

2.3.4 The main Findings and Recommendations are summarized below:

Table 5: Cost Allocation Results

	Total	Domestic	Export
Revenue, dollars	$182,131,970	$160,644,602	$21,487,369
Revenue, percent	100.00%	88.20%	11.80%
Revenue Requirement, dollars	$182,131,970	$164,124,456	$18,007,515
Revenue Requirement, percent	100.00%	90.11%	9.89%
MWh	158,942,411	140,190,875	18,751,536
Allocated Cost per MWh	$1.1459	$1.1707	$0.9603
Revenue to Cost Ratio at $1.1459/MWh	100.00%	97.88%	119.32%

Elenchus recommended that:

> The most appropriate approach to developing the IESO usage fee for 2016 would be to charge it on the basis **a single charge determinant**. That is, the 2016 net revenue requirement for the IESO would be recovered by charging all domestic and export customers (i.e., market participants) a fee based on a charge determinant defined as AQEW+SQEW + EG [7].

We note that IESO states that:

> *There is no distinguishable difference between the IESO costs caused by customers served by distributors with embedded generation as compared to those without embedded generation.*[8]

2.3.5 According to IESO, for cost allocation purposes, embedded generation is treated in the same manner as domestic load. As such, the IESO considers it appropriate for customers of LDCs with embedded generation to no longer receive a discount in the amount of usage fee that they pay, given that this discount does not reflect any cost reductions to the IESO.

[6] Exhibit B-1-1, Attachment 3, Page 11
[7] Exhibit B-1-1, Attachment 3, Page 13
[8] Exhibit I Tab 2.0 Schedule 3.28 BOMA 28

2.3.6 With respect to the justification for differentiating the usage fee that is applied to each of domestic and export customers Elenchus 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 classes, respectively.[9]

Table 1: Usage Fees and Revenue-to-Cost Ratios for Domestic, Export and Combined Customer Classes, with Different and Common Usage Fees

	Allocated Costs	MWh	Class-Specific Usage Fees			Common Usage Fee	
			100% RCR	80% RCR	120% RCR	Rate	R/C Ratio
Domestic	$164,124,456	140,190,875	$ 1.1707	$ 0.9366	$ 1.4049	$1.1459	97.88%
Export	$18,007,515	18,751,536	$ 0.9603	$ 0.7683	$ 1.1524	$1.1459	119.32%
Combined	$182,131,970	158,942,411	$ 1.1459			$1.1459	100.00%

2.3.7 We have difficulty with the Elenchus Cost Allocation methodology relying primarily on an arbitrary division of IESO costs into three "baskets" – domestic, export and "equally" – by the various IESO departments. We question whether the precision of this breakdown is better or worse than the IESO's forecast of domestic consumption and energy exports and how those forecasts impact the allocation of IESO's fees.

2.3.8 Elenchus addresses this in response to HQEM-APPrO in terms of changes to the allocated costs between the original and current reports:

> **The change in allocated costs is driven primarily by the change in the proportion of forecast load for the domestic and export classes.** Even if both total costs and total load were constant, a shift in the proportional share of load associated with each class will change the apportionment of costs to the classes. The same effect occurs when a significant load within a distributor's customer class is added or lost, thereby changing the proportionate allocation of common costs.

2.3.9 An examination of the precision of the forecasts of domestic and export volumes was requested by Energy Probe.[10] This shows a significant over estimate in Export Volumes, compared to domestic volumes.

[9] Exhibit B-1-1, Attachment 3, Page 15 Table 1

[10] Exhibit I Tab 2.0 Schedule 5.08 ENERGY PROBE 8 (updated version)

Year	Source	Ontario Demand (TWh)	Exports (TWh)	Embedded Generation (TWh)
2010	Forecast (18-Month Outlook released 2009/08/25)	141.1	10.0	N/A
	Actual	142.2	15.2	2.3
2011	Forecast (18-Month Outlook released 2010/08/23)	142.9	12.9	N/A
	Actual	141.5	12.8	2.9
2012	Forecast (18-Month Outlook released 2011/08/24)	144.5	15.2	N/A
	Actual	141.3	14.6	3.3
2013	Forecast (18-Month Outlook released 2012/09/12)	141.1	14.2	4.8
	Actual	140.7	18.3	4.3
2014	Forecast (18-Month Outlook released 2013/09/03)	141.0	14.4	5.6
	Actual	139.8	19.1	5.2
2015	Forecast (18-Month Outlook released 2014/09/04)	138.8	13.7	6.7
	Actual	137.0	22.6	6.2
2016	Forecast (18-Month Outlook released 2015/09/21)	138.7	17.9	6.6

Note: The forecast of export volumes is created by the IESO for the purpose of our revenue requirement submission.

2.3.10 We note that export volumes are about 10-15% of the total volumes, but we suggest that despite the data inconsistencies in the table, there is are significant difference between forecast SQEW and actual export volumes. The associated export revenues are equally variable.

2.3.11 Despite these reservations, the result of the Cost Allocation study shows similar unit costs per MWh for Domestic and Export services. Therefore, Energy Probe supports a single fee based on administrative simplicity.

2.3.12 In addition it would not be appropriate to require different fees for each of domestic load and exports, unless there is also a specific Board-approved mechanism – such as a deferral/variance account – to true up any revenue shortfall (or gain) from exports.

2.3.13 We understand that at present, the IESO utilizes the $10 million contingency fund and/or tracks the amounts and any associated borrowing costs in the Forecast Variance Deferral Account ("FVDA") and trues up FVDA balances annually.[11]

2.3.14 If the Board determines that different fees for domestic and export customers are appropriate – based on either cost causality or rate design – then we submit that there should be deferral or variance account to deal with changes between forecast and actual domestic and export volumes and associated revenues. The balance from these accounts would feed in to FVDA that would then also deal with forecast and actual costs and lead to a "true up" of fees in the next fiscal year.

Issue 2.4 Is the IESO's proposal to charge the proposed single IESO Usage Fee from January 1, 2016 and to refund (or charge) market participants the difference between the 2016 single Usage Fee and the interim usage fees they paid, if any, based on their proportionate quantity of energy withdrawn, which may include scheduled exports and embedded generation, in 2016, appropriate?

2.4.1 In our view applying a refund or charges to market participants is appropriate.

The Change in 2016 Fees paid by customers, relative the proposed Interim Fees is:

	September 1 Implementation Date	December 1 Implementation Date
Change for domestic customers	-$8.7 M	-$11.8 M
Change for export customers	$3.9 M	$5.4 M

The 2016 fiscal year is almost over, and it would be inappropriate to provide charges or rebates until the Board has reached a Decision on Single or Differentiated Fees.

Issue 2.5 What would be an appropriate effective date for the Usage Fee(s) approved in this proceeding?

2.5.1 We suggest the new fee (or fees) should be effective January 1, 2016.

2.5.2 However, we note that the current Application deals only with the 2016 Revenue Requirement. Accordingly, we suggest that IESO should review its costs and revenues for 2017 and file an Application for Interim 2017 fees that updates costs and revenues for the two fee options – a single fee and differentiated fees.

2.5.3 If the Board Issues its decision prior to the start of 2017 Fees Year, the 2016 Fee adjustments could be dealt with in the Order for 2017 Interim Fees.

[11] Exhibit I, Tab 4, Schedule 5.11

Costs

Energy Probe has participated responsibly and efficiently in the Discovery, Settlement and Argument Phases of the Application. Accordingly it is requested that the Board direct IESO to reimburse Energy Probe for 100% of its legitimately incurred costs.

All of Which Is Respectfully Submitted in behalf of Energy Probe Research Foundation

October 14, 2016:

Brady Yauch Energy Probe

Roger M.R. Higgin SPA Inc. Consultant to Energy Probe