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March 22, 2013

VIA MAIL and E-MAIL

Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
P.O. Box 2319
2300 Yonge St.
Toronto, ON
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Dear Ms. Walli:

Re: EB-2012-0031

Please find enclosed the submissions of VECC in the above noted proceeding.

Yours truly,

Michael Buonaguro
Counsel for VECC
Encl.

EB-2012-0031

ONTARIO ENERGY BOARD

IN THE MATTER OF the *Ontario Energy Board Act, 1998*, S.O. 1998, c. 15, Sch.B, as amended;

AND IN THE MATTER OF an Application filed by Hydro One Networks Inc. pursuant to the *Ontario Energy Board Act* for an Order or Orders approving a transmission revenue requirement, rates and other charges for the transmission of electricity for 2013 and 2014.

FINAL SUBMISSIONS

On Behalf of The

VULNERABLE ENERGY CONSUMERS COALITION (VECC)

March 22, 2013

Public Interest Advocacy Centre

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1. INTRODUCTION

1. On May 28, 2012 Hydro One Networks filed an application with the Ontario Energy Board for approval of its 2013-2014 Revenue Requirement. A Settlement Conference was subsequently held and, in November 2012, a Settlement Agreement was filed with the Board wherein all issues were settled except for the Export Transmission Service ("ETS") Tariff to be charged in 2013 and 2014.

2. These are the submissions of the Vulnerable Energy Consumers Coalition ("VECC") with respect to this one unsettled issue.

3. The submissions are organized into five sections:
    - Section 2 provides a brief background on the ETS tariff issue up to the current proceeding;
    - Section 3 provides an outline of the evidence and submissions submitted to date in the current proceeding regarding the ETS tariff issue;
    - Section 4 provides further details and VECC's views regarding the evaluation criteria to be used in assessing the various ETS tariff options; and
    - Section 5 provides VECC's views as to the conclusions that should be drawn when assessing the ETS tariff options using these criteria.

2. BACKGROUND

4. The Export Transmission Service rate was first approved by the Board in 2000 (RP-2009-0044) and was set at $1/MWh. At the time the Board noted that the ETS rate was a "contentious and complex issue"[1] and the $1/MWh value was set after weighing the following factors:

[1] RP-2009-0044, page 66

- The Government's long-term objective of reducing energy costs through competition can be served by the development of larger, open power markets where trade can take place with the minimum of impediment. This was reflected in the Market Design Committee's recommendation that exports should be subject to only incremental transaction-specific charges and no contribution to sunk costs should be levied[2].
- Despite FERC Order 2000[3] interconnected US jurisdictions had done little to address the issue of lowering/eliminating ETS tariffs for inter-jurisdiction transactions and no North American jurisdiction had instituted short-run marginal pricing for ETS[4]. Indeed, current ETS tariffs in these interconnected jurisdictions, as well as Manitoba and Quebec, covered a wide range of charges (US$1/MWh to approximately US$11/MWh), which generally exceed the proposed $1/MWh[5].
- The view that a reasonable ETS tariff that recovered a portion of transmission costs could be implemented subject to reciprocal tariff treatment by neighbouring jurisdictions[6].

5. In its RP-2009-0044 Decision, the Board also emphasized that the $1/MWh was an interim value which should be revisited based on the functioning of the export market and developments in neighbouring jurisdictions[7]. However, the matter was not revisited until Hydro One Networks' 2007-2008 Transmission Revenue Requirement Application (EB-2006-0501). During that proceeding, the Board approved a Settlement Agreement in which the IESO was identified as the entity responsible to pursue and negotiate, with

[2] RP-2009-0044, page 66
[3] This Oder supported the creation of open power markets with minimal impediments to trade
[4] RP-2009-0044, page 63
[5] RP-2009-0044, pages 66-67
[6] RP-2009-0044, page 67
[7] RP-2009-0044, page 68

neighbouring jurisdictions, acceptable reciprocal arrangements with the intention of eliminating the ETS tariff, and to also study the appropriate ETS tariff. It was agreed that the IESO would make a report available to the Board upon completion which was to be no later than June 1, 2009 with the results of reciprocal arrangement negotiations and the study including recommendations for an appropriate ETS tariff.

6. Charles River Associates (CRA) was retained by the IESO to undertake an analysis of several export rate scenarios, including the status quo, no charge and a charge of $5/MWh. The results of the quantitative analyses indicated that, among the rates considered, the net Ontario benefit would be highest with the $5/MWh rate. However, the IESO did not recommend this rate, citing that circumstances had changed since early 2009[8]. The IESO also noted that for most of Ontario's neighbouring jurisdictions establishing reciprocal transmission pricing agreements is not a priority[9]. Based on this, the IESO indicated that it was not proposing to undertake any further discussions on this matter in the near future and the reciprocal tariff elimination issue was effectively on the "back burner"[10].

7. In its EB-2010-0002 Decision[11] the Board concluded "the most pressing requirement is that a genuinely comprehensive study be undertaken to identify a range of proposed rates and the pros and cons associated with each proposed rate in time for the next transmission rate application ". The Board also expressed the view that the most appropriate party to undertake this study was the IESO.

8. With respect to the ETS tariff for 2011 and 2012, the Board's Decision stated[12]:

[8] EB-2010-0002, Decision, page 71
[9] EB-2010-0002, Exhibit H1/Tab 5/Schedule 2, page 4
[10] EB-2010-0002, Transcript Volume #9, pages 83-84
[11] Page 75
[12] Page 75

The CRA study did not examine any of the rate level options falling between the one dollar placeholder and the five dollar rate recommendation which was ultimately abandoned by IESO for the reasons cited above.

It is the Board's view that the CRA study is informative to the extent that it considered the higher rate to result in a higher net Ontario benefit. While the Board respects IESO's reticence to advocate the higher rate, it does appear as though some level between one dollar and five dollars is directionally advisable.
Accordingly, the Board will direct that a change be made to the ETS rate for 2011 and 2012, increasing the rate to two dollars per MWh. In making this change the Board seeks to recognize the directional preference of the CRA study, and the absence of any particular analytical underpinning for the current rate.

Subsequent panels assessing the level of this rate should not, however regard this new rate as having any particular precedential value. It is the Board's view that the new rate has more analytical support than the status quo but that in order to arrive at a genuinely robust and valid rate, more study is required.

3. CURRENT PROCEEDING (EB-2012-0031)

3.1 CHARLES RIVERS ASSOCIATES (CRA) REPORT

9. The IESO initiated a stakeholder consultation (SE-94) in May 2011 and obtained input with respect to the ETS tariff designs that should be assessed and the criteria to be used in the assessment. Subsequently, Charles Rivers Associates (CRA) was selected through an RFP process and engaged to undertake the review of ETS options[13].

10. CRA examined four alternative ETS tariff designs as well as the current $2/MWh rate[14]:
    a. The Unilateral Elimination of the ETS tariff (i.e. $0/MWh);
    b. An increase in the ETS tariff tot the current Equivalent Network Charge (ENAC) of $5.80/MWh;

[13] Exhibit H1, Tab 5, Schedule 2, pages 1-2
[14] Exhibit H1, Tab 5, Schedule 2, Appendix B ("CRA Study"), page 1

c. A tiered rate of $5.80/MWh0 in the on-peak hours and $0/MWh in the off-peak hours; and
d. A tiered rate of $3.50/MWh in the on-peak hours and $1.00 /MWh in the off-peak hours

11. Using the current rate of $2/MWh as the benchmark, CRA estimated the effects of the four alternative tariff designs on a number of market outcomes (e.g. exports, imports, Ontario power prices, surplus baseload generation (SBG) events, carbon emissions). The alternative tariff designs were also evaluated against four criteria:
    a. Consistency with rates in neighbouring jurisdictions
    b. Administrative simplicity
    c. Fairness, and
    d. Efficiency.

12. As noted above, both the options assessed and the criteria used were specified to CRA by the IESO[15]. Furthermore, in terms of the assessment criteria, the IESO did not provide any direction as to their relative importance and CRA did not attach any weighting or preferences to the criteria or provide any recommendations[16].

3.2 OTHER PARTIES' EVIDENCE

13. Two intervenors participating in the proceeding filed evidence regarding the ETS tariff: i) the Association of Power Producers of Ontario (APPrO) and ii) HQ Energy Marketing (HQEM).

3.2.1 APPrO's Evidence

14. APPrO's evidence consisted of two parts. The first was prepared by Cliff Hamal from Navigant Economics and the second was prepared by Marc-André Laurin from Brookfield Marketing LP.

[15] Volume 2, page 148, lines 2-5
[16] Volume 2, page 148, lines 11-26

Evidence of Cliff Hamal (Navigant)

15. The Hamal Evidence maintained that the ETS tariff should be reduced and that consideration should be given to its elimination. The reasoning was that the added cost of the ETS tariff impedes trade and results in less efficient production across the entire region. It claimed that as well as increasing the efficiency of the overall market it would lower customer costs and increase export responsiveness during hours in the coming years when SBG problems are expected to occur[17].

16. The Hamal Evidence also claimed that there were shortcomings in CRA's modelling that:
    a. Understated the proportion of the calculated benefits that would flow to consumers as opposed to producers[18]; and
    b. Failed to adequately reflect trading activity (particularly the uncertainties influencing trader behaviour)[19].

17. Finally, the Hamal Evidence concluded that tiered ETS tariff structures are unlikely to provide benefits to Ontario[20].

Evidence of Marc-André Laurin (Brookfield)

18. The Laurin Evidence provided a comparison of forward data for 2013 as to the price differential between Ontario and New York Zone O and the impact the various tariff alternatives would have on the differential and, as a result, trade[21]. The Evidence concluded that "any ETS tariff higher than $0 would greatly reduce the incentive to export out of Ontario, especially in periods of surplus baseload generation"[22].

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[17] Hamal Evidence, page 1
[18] Hamal Evidence, pages 3-4 and pages 14-17
[19] Hamal Evidence, page 7 and pages 18-22
[20] Hamal Evidence, pages 27-30
[21] Lauren Evidence, page 2
[22] Lauren Evidence, page 4

3.2.2 HQEM Evidence

19. The HQEM evidence was prepared by Elenchus Research Associates. The evidence asserts that cost causality is a core principle in setting rates (including ETS tariffs) and that it is inappropriate to establish rates without first determining the causal costs at play[23].

20. The Evidence goes on to state that a cost allocation study related to transmission costs should explicitly treat exporters as a separate rate class and recognize that the market rules treat exporters as interruptible customers while domestic customers are treated as firm load[24].

3.3 IESO SUBMISSIONS

21. Following the close of the evidentiary part to the proceeding, the IESO filed a final submission containing its evaluation of the alternative ETS tariffs.

22. In terms of reliability and operability of the Ontario power system, the IESO noted that none of the alternatives would impair its ability to manage the power system, including during SBG conditions[25]. The IESO also observed that while all of the alternatives could be implemented, the two-tiered structures were more complex and would take approximately three months to implement[26].

23. In terms of efficiency, the IESO's view was that the Unilateral Elimination option ($0/MWh rate in all hours) would "best encourage the efficient use of electricity and promote economic efficiency in the generation, transmission and sale of electricity"[27].

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[23] HQEM Evidence, page 5; Volume 2, page 48, line 28 to page 49, line 8 and Volume 3, page 40, lines 1-3
[24] HQEM Evidence, pages 11-12 and Volume 2, page 134, lines 9-17
[25] IESO Submission, page 5
[26] IESO Submission, page 10
[27] IESO Submission, page 5

4. ASSESSMENT CRITERIA FOR EVALUATION OF ETS TARIFF OPTIONS

4.1 APPROPRIATENESS OF CRA EVALUATION CRITERIA

24. As noted earlier, the evaluation criteria used by CRA were specified by the IESO at the start of project as follows[28]:

- Consistency with rates in neighbouring jurisdictions
- Administrative simplicity
- Fairness, and
- Efficiency.

25. In VECC's view the appropriateness of these criteria is best assessed by contrasting them with: i) the statutory objectives of the OEB as they apply to the regulation of electricity and ii) the rate-making principles used by Hydro One Networks and approved by the OEB for setting transmission rates.

26. Section 1 of the *OEB Act* sets out the following objectives for the Board with respect to its responsibilities as they apply to the regulation of Ontario's electricity sector:

> 1. To protect the interests of consumers with respect to prices and the adequacy, reliability and quality of electricity service.
>
> 2. To promote economic efficiency and cost effectiveness in the generation, transmission, distribution, sale and demand management of electricity and to facilitate the maintenance of a financially viable electricity industry.
>
> 3. To promote electricity conservation and demand management in a manner consistent with the policies of the Government of Ontario, including having regard to the consumer's economic circumstances.
>
> 4. To facilitate the implementation of a smart grid in Ontario.
>
> 5. To promote the use and generation of electricity from renewable energy sources in a manner consistent with the policies of the Government of Ontario, including the timely expansion or reinforcement of transmission systems and distribution systems to accommodate the connection of renewable energy generation facilities.

[28] Volume 2, page 148, lines 2-10

27. VECC notes that the first two OEB objectives are the most relevant to the setting of the ETS tariff. In VECC's view these two objectives are generally addressed by the CRA criteria of fairness and efficiency. The aspects that are not explicitly addressed are the requirements to protect the interests of consumers with respect to the adequacy, reliability and quality of service. However, as noted earlier, the IESO has indicated that none of the tariff options proposed would impair its ability to manage the power system.

28. The rate-making principles appropriate to setting rates were first addressed in the Board's RP-1999-0044 Decision and took into account cost causality, efficiency and fairness[29]. In VECC's view, fairness encompasses the principle of cost causality (i.e. rates are fair if they result in customers paying for the costs they impose on the system/the facilities they use). As a result, VECC submits that the CRA criteria also reflect the ratemaking principles adopted by the Board in RP-1999-0044.

29. Subsequently, in its 2007-2008 Revenue Requirement Application (EB-2006-0501) Hydro One Networks drew on Bonbright's rate making criteria and set out[30] the following principles to be used for purposes of transmission rate making:

> (a) There should be effectiveness in yielding regulated revenue requirement for
> transmitters, while ensuring that socially undesirable expansion of the rate base is discouraged.
>
> (b) The pricing methodology should provide revenue stability and predictability for transmitters, with a minimum of unexpected changes that could result in adverse impact on the companies.
>
> (c) The pricing methodology should reflect cost causality and the rates should be cost based to the extent possible – taking into consideration the balance with overall public interest, efficiency, feasibility and practicality.

[29] Exhibit I, Tab 23, Schedule5.02 (VECC #43)
[30] EB-2006-0501, Exhibit G1, Tab 1, Schedule 1, pages 5-6

(d) The pricing methodology should be fair and equitable, and it should not favour any one group or type of customer at the expense of other customers.

(e) The pricing methodology should be transparent, simple to understand and implement, and should have attributes of convenience of payment, economy in collection, public acceptability, and feasibility of application.

(f) The pricing methodology should be free from ambiguity as to proper interpretation.

29. Again, it is VECC's view that the CRA criteria generally capture all of these principles. VECC also notes that Hydro One Networks' EB-2006-0501 Application[31] indicated that in setting Transmission prices for Ontario, consideration should be given to the Transmission Pricing methodology in other jurisdictions, particularly in North America, in order to ensure Ontario's load customers and generators are not at a disadvantage compared to similar entities in the United States and other provinces which reflects CRA's first criterion.

30. VECC submits that the criteria used by CRA are appropriate for assessing ETS tariff alternatives. The following sections provide more detail regarding the role and appropriate interpretation of each criterion.

4.2 ETS TARIFFS IN OTHER JURISDICTIONS

31. While comparability with ETS tariffs in other jurisdiction is not directly referenced in either the OEB Act or Bonbright's rate making principles, VECC submits that since the principles of fairness and efficiency are widely accepted by regulators as appropriate principles in rate setting[32], other jurisdictions' approaches to ETS tariffs can provide a useful and relevant measure as to the reasonableness of proposed ETS tariffs for Ontario.
32. However, since transmission costs can vary by jurisdiction, VECC submits that it is more important to look at the comparability of the methodologies

[31] EB-2006-0501, Exhibit G1, Tab 1, Schedule 1, page 6
[32] HQEM Evidence, page 3 and Volume 2, page 191, line 27 to page 192, line 9

underlying the derivation of the ETS tariffs than the comparability of actual level of the ETS tariffs themselves across jurisdictions.

33. Furthermore, in VECC's view, the most relevant comparisons are with those jurisdictions directly adjacent to Ontario as they are the ones to which (or through which) exports will actually occur and therefore the ones with transmission rates that are likely to be of the most interest and relevancy to the Board.

34. In his evidence, Mr. Cliff Hamal makes reference to the elimination of tariffs between NY ISO and ISO New England and between MISO and PJM[33]. In VECC's view comparisons of such tariffs with Ontario's ETS tariff are irrelevant. These tariffs are the result of reciprocal arrangements between the two jurisdictions and not unilateral decisions by one jurisdiction[34]. In conjunction with the ETS tariff study prepared for EB-2010-0002 the IESO specifically approached the jurisdictions adjacent to Ontario to explore their interest in reciprocal reductions in ETS tariffs and reciprocal elimination of export tariffs was not considered to be a priority by the majority of Ontario's neighbours[35]. Indeed, this was the reason why reciprocity with connected regions was not selected as one of the options to be studied for this proceeding[36].

4.3 ADMINISTRATIVE SIMPLICITY

35. In VECC's view administrative simplicity encompasses ease of implementation, customer understandability, transparency and public acceptability since a tariff must address all of these issues if it is to ultimately be administratively simple.

[33] Hamal Evidence, page 11
[34] Volume 2, page 118, lines 2-9
[35] EB-2010-0002, Exhibit H1, Tab 5, Schedule 2, page 4
[36] Exhibit I, Tab 23, Schedule 1.02 (Staff #85 b))

4.4 EFFICIENCY

36. The following sections deal with some of the specific issues that have arisen during the proceeding regarding the use of the NEEM model and the calculation of efficiency benefits.

4.4.1 Regional vs. Ontario Efficiency Impacts

37. The CRA study reports not only the efficiency gains/losses for Ontario that are associated with each ETS tariff option but also regional efficiency/welfare changes[37]. Furthermore, in its submissions, the IESO makes specific reference to these results[38] in supporting its view that "Unilateral Elimination" produces the most efficient outcome.

38. In contrast, VECC notes that both intervenor evidence and expert testimony focused on the benefit results as calculated for Ontario. In VECC's view this is the proper perspective and the primary focus of the Board in considering efficiency gains/losses must be the net benefit to Ontario. VECC submits that, while the statutory wording of the Board's objectives does not make specific reference to Ontario consumers or Ontario generation, transmission and distribution, it is the only logical interpretation that can be made. For example, application of a broader interpretation would suggest that the Board would approve Ontario consumers financing cost-effective CDM programs in other jurisdictions on the basis that regional benefits (achieved primarily elsewhere) exceed the regional cost (to be incurred by Ontario consumers).

39. In VECC's view regional efficiency gains are, at best, a secondary consideration to be taken into account when an Ontario-focused application of the objectives of the Act and the Board's rate making principles does not yield a preferred approach.

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[37] CRA Study, pages 37-38 and pages 42-46
[38] IESO Submission, page 10

4.4.2 Appropriate Efficiency Measure

a) CRA Study

40. The CRA study uses the outputs of its NEEM model to calculate changes in Ontario Consumer and Producer surplus attributable to each ETS tariff alternative assessed and then uses the overall change in total surplus to Ontario market participants (i.e. Consumers plus Producers) to measure the effects on economic efficiency of adopting each of the ETS tariffs considered[39].

41. However, in its "efficiency" evaluation of the various ETS tariff options the CRA Study also references the impact of the tariff level as a barrier to exports and the ability of exporters to switch exports to lower rate time periods as if they were additional measures of efficiency[40]. When asked whether there were additional measures of "efficiency" to be captured by these considerations the CRA consultants agreed that there were none[41]. As a result, VECC submits that in considering the merits of each ETS alternative from an "efficiency" perspective the focus of the Board should be on the "Net Benefit to Ontario" and that this measure will capture all of the impacts on efficiency related to changes in trade.

b) IESO Submissions

42. In its final submission the IESO used the "net benefit" calculation when determining efficiency gains from a generation perspective[42] but judged transmission efficiency gains/losses with reference to the short-run marginal costs imposed by exporters on the transmission system[43]. VECC has a

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[39] CRA Study, page 23 and Volume 2, page 20, lines 2-3. The calculation also includes changes in Intertie Congestion Revenue which is not assigned to either Consumers or Producers.
[40] CRA Study, pages 42-46
[41] Volume 2, page 153, lines 8-15
[42] IESO Submission, pages 6-7
[43] IESO Submission, page 8

number of concerns regarding the IESO's approach to measuring efficiency gains/losses.

43. VECC's first set of concerns relate to process. As noted earlier, the use of "Net Benefit to Ontario" as the measure of efficiency gains/losses was dictated to CRA by the IESO[44]. If the IESO had any initial issues with the use of this calculation they should have raised them prior to the issuing of the RFP for the study. If the issue emerged during the course of the proceeding then the IESO should have raised its concerns through independent evidence or, at a minimum, during the oral proceeding when its representative (Mr. Finkbeiner) appeared as a witness on the Concurrent Expert Witness Panel. VECC submits that it is inappropriate for the IESO to, as part of its final submission, put forward a totally new perspective regarding the measurement of "efficiency".

44. VECC acknowledges that the pricing based on marginal costs was raised in the Elenchus evidence prepared for HQEM[45]. However, Elenchus raised the use of marginal costs within the context of cost allocation and fairly apportioning costs between transmission users based on "cost causality", not in the context of measuring efficiency. VECC's submissions on Elenchus' evidence are set out below under the appropriate section.

45. VECC's second set of concerns relate to the IESO's use of different measures of efficiency when discussing different aspects of the Ontario power system (i.e. generation vs. transmission). VECC submits that the same metric/standard should be used to determine efficiency gains/losses for all aspects of the power system. In this regard VECC notes that the use of "Net Benefit to Ontario" was reviewed during the IESO stakeholder process and agreed to as the basis on which the study would be performed.

[44] Volume 2, page 148
[45] HQEM Evidence, page 5

46. VECC also notes that while Mr. Hamal had specific concerns regarding the calculations performed by the NEEM model and CRA's assignment of "benefits" to consumers as opposed to producers, he took no issue with (and indeed relied on) the use of changes in total Ontario surplus as a measure of efficiency gains/losses in his analyses.

47. VECC's third set of concerns is with the IESO's leap of logic from the Khan quote referenced by Elenchus - "In the presence of excess capacity, utility companies ought to make every effort to design rates, down to SRMC (Short Run Marginal Costs), to put it to use"[46] to the conclusion that efficiency would be improved if the transmission tariff was reduced for exporters. What the IESO submission fails to address is the fact that this same principle could be also be applied to Network Service charges billed to Ontario market participants, i.e., a Network Service tariff that exceeds the low short-riun marginal cost of delivering power across the province's transmission network could equally be considered as leading to an inefficient use of the network. Clearly doing so would lead to an under recovery of the Transmission Revenue Requirements set for the province's four transmission owners/operators. However, there is no discussion as to why the use of short-run marginal cost based rates should apply only to exporters.

c) Overall

48. Overall, VECC submits the appropriate measure of efficiency for both generation and transmission is "Net Benefit to Ontario" – i.e. changes in Ontario producer and consumer surplus. As confirmed during the interrogatory process "change in total surplus is the standard measure of the effects of policy on economic efficiency"[47]. Furthermore, VECC submits that the Board should reject any conclusions regarding efficiency improvements

[46] IESO Submission, page 8
[47] Exhibit I, Tab 23, Schedule 5.02 (VECC #42 c))

that are based solely on charging marginal cost-based rates to just export transmission users.

4.4.3 Issues Regarding NEEM Model and Determination of Ontario Net Benefit

49. During the course of the proceeding there were a number of issues identified regarding the way CRA and the NEEM model calculated benefits and assigned them to Ontario market participants (i.e., Producers and Consumers). The following sub-sections discuss what VECC considers to be the more substantive issues that are likely to have a material impact on the calculation of "Net Benefit to Ontario" and therefore impact the evaluation of the alternative ETS tariffs from an economic efficiency perspective.

a) Uplift Fees/Revenues

50. As noted previously, the CRA Study calculates the change in "Net Benefit to Ontario" associated with each of the ETS tariff alternatives as the sum of the change in Consumer surplus, Producer Surplus and Intertie Congestion Revenue. In the case of Consumer surplus, this is determined as the sum of the changes in i) Consumer bills; ii) ETS tariff revenues and iii) uplift revenues[48].
51. For purposes of the calculations, the uplift rate is assumed to remain unchanged and the contribution of uplift revenues to the change in Consumer surplus is calculated by multiplying the uplift fee ($3.33/MWh) by the change in export volumes[49]. However, there are two problems with this approach. The first is that uplift revenues are designed to recover uplift costs which do not generally change with the level of exports[50]. The result is that the uplift rate will actually increase or decrease depending upon whether the alternative ETS tariff option decreases or increases export volumes. While

[48] CRA Study, page 23
[49] CRA Study, page 23 and Volume 2, page 186, lines 9-22
[50] Volume 2, page 186, line 23 to page 188, line 18

consumers still benefit from increases in exports (i.e. via a lower uplift rate) mathematically the benefit change is not as large as that determined using the CRA approach.

52. The second, more significant, issue is the fact that not all of the benefit in the change will flow to Ontario consumers. The reason for this is that both Ontario consumers and exporters pay uplift fees and, therefore, any change in the uplift rate will also impact the uplift fees paid by existing exporters[51]. Thus, when the uplift rate goes down due to an increase in exports part of the benefits of the rate reduction will flow to Ontario consumers and part will flow to existing exporters.

53. In the modelling done by CRA for 2013, 2015 and 2017 respectively, exports make up 13%, 13% and 5% of total uplift revenues under the Status Quo (i.e. $2.00/MWh ETS) tariff case[52]. VECC submits that the calculation of the Consumer surplus portion of the "Net Benefit to Ontario" needs to be adjusted to account for this.

b) Inter-tie Congestion Revenue (ICR)

54. There was considerable debate during the oral hearing as to the appropriate treatment of the Intertie Congestion Revenue (ICR) calculated by CRA and its NEEM model. Part of the reason for this is because the Intertie Congestion Revenue calculation done by the NEEM model differs from the basis for calculating the Intertie Congestion Rents actually collected by the IESO from exporters[53]. The other reason for the debate was with respect to who actually benefits from any change in the value of Intertie Congestion Revenue[54].

55. With respect to the difference between the calculation of "Revenue" versus "Rent", the response to Staff #87 indicates that:

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[51] Volume 2, page 187, line 6 to page 188, line 20
[52] Exhibit K2.4
[53] Exhibit I, Tab 23, Schedules 1.04 (Staff 87) and 1.05 (Staff 88) and Volume 2, page 36, lines 16-26
[54] Volume 2, page 24, lines 20-24

- Intertie Congestion Rent (as actually calculated and collected by the IESO) is based on the difference between the Intertie Congestion Price and the Ontario market price.
- Intertie Congestion Revenue (as calculated by CRA and the NEEM model) is based on price in the export market less the price in Ontario and associated transaction costs (e.g. friction costs, transmission costs and uplift fees).

56. In general, the price in the export market must exceed the costs paid by the exporter (i.e., Ontario price plus Intertie Congestion Rent plus associated transaction costs) in order for the trader to make a "profit" and stay in business. Assuming the friction costs used in the CRA study are a reflection of the returns traders reasonably expect to receive, VECC submits that over the long run (i.e., numerous trading transactions) Intertie Congestion Revenue must equal or exceed Intertie Congestion Rent. Furthermore, to the extent these Revenues exceed Rents, VECC submits that the difference will accrue to traders as additional profits as argued by the CRA consultants[55].

57. However, in VECC's view, the more significant difference of opinion is with respect to whom the benefits from changes in Intertie Congestion Revenues should be considered to accrue (even if there is no difference between Intertie Congestion Revenues and Intertie Congestion Rents). Mr. Hamal is of the view that the amount should all be considered as accruing to Consumers[56]. The CRA consultants do not take a position on how much goes to Consumers but do assume that any change in ICR contributes 100% to a change in "Net Benefit to Ontario" and none of it goes to traders[57].

58. VECC notes that the first "call" on Intertie Congestion Rents is to fund the payouts that are made to parties who have purchased Transmission Rights[58].

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[55] Joint Witness Statement, pages 6-7
[56] Hamal Evidence, page 14
[57] Volume 3, page 27, lines 13-18
[58] Volume 2, page 111, lines 14-18 and page 175, lines 2-7

Indeed, as evidenced by the most recent Market Surveillance Panel (MSP) report, Transmission Rights Payouts have historically exceeded the Intertie Congestion Rents collected and funds collected through the auction of Transmission Rights have also been required in order to support these Payouts[59]. It is only if there are any remaining surplus funds collected through the Transmission Rights auction and Intertie Congestion Rents that payments are made to Consumers. Indeed, historically over 80% of the amounts collected have gone to Transmission Rights holders[60].

59. VECC also notes, like Intertie Congestion Rents[61], Transmission Rights Payouts[62] are based on Intertie Congestion Prices. Therefore, to the extent changes in Intertie Congestion Rents/Revenues as between the various ETS tariff alternatives are due to changes in Intertie Congestion Prices, the Payouts will change when the Rents/Revenues change.

60. Based on the foregoing, VECC submits that one cannot readily assume that all of the change in ICR will accrue to Consumers or even that it will accrue to Ontario. VECC submits that the first conclusion one must draw is that the majority of any change will accrue to Transmission Rights holders and not directly to Consumers. This same conclusion was expressed by the CRA consultants[63] and the IESO witness[64].

61. The IESO witness has testified that Transmission Rights holders are either traders trying to hedge against transactions across the interties or speculative

[59] Volume 2, page 54, lines 1-2
[60] Exhibit K1.5 (MSP Report), page 156. Historically Transmission Rights Payouts have totalled $564.7 M versus a total of $685.8 M for Transmission Auction Revenues plus Intertie Congestion Rents.
[61] Exhibit I, Tab 23, Schedule 1.04 (Staff 87), a) & b)
[62] Exhibit K1.5 (MSP Report), page 86
[63] Volume 2, page 20, lines 13-15
[64] Volume 2, page 54, lines 3-7

investments by people who are not trading, e.g. financial institutions[65]. In either case, they are not all in Ontario[66].

62. Based on these observations, VECC submits that it is incorrect to assume all change in ICR arising from an alternative ETS tariff will accrue to Ontario and contribute to the change in the "Net Benefit to Ontario".

c) Trader Behaviour and SBG

63. Another area of considerable debate during the oral proceeding was the ability of the NEEM model to adequately reflect trader behaviour and whether shortcomings in this area led to the CRA Study underestimating the benefits of reducing the ETS tariff[67].

64. Mr. Hamal notes that while the CRA model is deterministic and assumes perfect information is available to all, in reality this is not the case[68]. Traders must deal with uncertainty and risks[69] and Mr. Hamal contends that an ETS tariff increase will increase risk and therefore the CRA analysis understates the impact of such tariff increases on trade[70].

65. Mr. Laurin's evidence also emphasized the fact that traders did not have perfect foresight[71], as implied by a deterministic model, and must deal with uncertainty inherent in forecasts of market prices (both in Ontario and elsewhere) and well as uncertainty in terms of whether the transaction will actually proceed[72]. His evidence[73] looked at the forecast price differentials between Ontario and New York for 2013, which suggested that while there would be (on average) a positive profitable differential under the current

[65] Volume 2, page 101, lines 20-26
[66] Volume 2, page 172, line 14 to page 173, line 28 and Volume 3. page 37, lines 5-11
[67] Joint Expert Statement, pages 15-16
[68] Joint Expert Statement, page 15 and Hamal Evidence, pages 19 & 22
[69] Volume 3, page 45, lines 15-20
[70] Joint Witness Statement, page 5 and Volume 3, page 72, line10 to page 74, line 22
[71] Laurin Evidence, page 1
[72] Volume 3, page 126, line 25 to page 127, line 25
[73] Laurin Evidence pages 2-3

$2.00/MWh tariff, this would disappear if the tariff increased to $5.80 – the Equivalent Average Network Charge. He also noted that increasing the ETS tariff increases the overall cost of the transaction which will alter the reward/cost relationship[74]. Overall, Mr. Laurin's evidence concludes that "any ETS tariff higher than $0 would greatly reduce the incentive to export out of Ontario"[75].

66. VECC notes that the CRA consultants have readily acknowledged that their model does not fully capture uncertainties or non-price factors[76]. However, at the same time they have indicated that modelling such uncertainty is very expensive and that economic models are almost always deterministic[77]. VECC agrees. Mr. Laurin has observed that risk tolerances vary by trader[78]. As a result, VECC submits that trying to understand yet even properly model the behaviour of traders would be virtually impossible.

67. VECC also agrees with CRA[79] that the key question is whether or not the simplifying assumptions materially bias the results of their study. In that regard, CRA states that they have done analysis that supports their approach as being appropriate[80] and that there is no bias[81]. However, Mr. Hamal does not agree[82].

68. In coming to his conclusion that the CRA model does not properly reflect traders' activity/behaviour to the point where the results are biased, Mr. Hamal relies heavily on the analysis undertaken by Mr. Laurin[83]. However, as noted by the CRA consultants, Mr. Lauren's evidence relies on projections

[74] Volume 3, page 131, lines 5-15
[75] Laurin Evidence, page 4
[76] Volume 2, page 26, lines 25-27; page 27, lines 24-27 and page 133, lines 2-11
[77] Volume 3, page 46, lines 4-28
[78] Volume 3, page 129, line 22 to page 130, line 3
[79] Volume 2, page 31, lines 17-23
[80] Volume 2, page 32, lines 1-16
[81] Volume 3, page 66, lines 1-12
[82] Volume 3, page 66, line 13
[83] Volume 3, page 67, lines 11-13 and page 70, lines 7-8

of future traded prices between jurisdictions and if the ETS tariffs were to increase these market prices would also adjust. In VECC's view this is represents a fundamental flaw in Mr. Laurin's evidence.

69. A related area of considerable contention was whether the CRA model and results properly reflected the implications on trade of alternative ETS tariffs during SBG periods. The results of the CRA study suggested that during periods of SBG there would be significant price separations between the HOEP and the prices in other jurisdictions and that across the various alternative ETS tariffs there was no change in the amount of SBG[84].

70. Mr. Hamal questioned these conclusions[85]. He notes that these results are based on the fact that, in the CRA Study, tie-lines are modelled as being constrained during SBG periods, whereas in reality this is not the case and there have been SBG hours when the tie-lines are not full[86].

71. CRA acknowledges the discrepancies between the reality and their modelling results and, as discussed in the previous section, attributes them to non-economic factors that are difficult to model[87]. However, they also point out that during SBG events the inter-jurisdictional price differentials are large such that that changes contemplated in the ETS tariff are unlikely to materially impact the level of trade transactions[88].

d) Overall

72. Overall, VECC submits that there is no clear evidence to support the contention that the CRA modelling approach is fundamentally flawed. However, by CRA's own admissions[89], the results are an approximation of the impacts of alternative ETS tariffs and do not fully capture all the factors at

[84] Volume 2, page 27, lines 2-18
[85] Joint Witness Statement, page 17
[86] Hamal Evidence, page 24 and Joint Witness Statement, page 17
[87] Joint Witness Statement, page 17 and Volume 2, page 128, lines 18-21
[88] Volume 2, page 30, line 22 to page 31, line 1
[89] Volume 2, page 31, lines 17-23

play. One implication is that, when considering the impacts, the materiality of differences in the results must also be considered as small differences may not be demonstrative of a real change in "Net Benefit to Ontario".

4.5 FAIRNESS

4.5.1 Determination of Fairness

73. The CRA study offered two perspectives on fairness[90]. The first was "horizontal fairness", ensuring that consumers like consumers pay like charges, and "vertical fairness", ensuring consumers who impose different costs and derive different benefits are treated in a way that reflects those costs and benefits. Reflecting these perspectives, CRA's evaluation of the alternatives makes reference to the view that exporters impose different costs and received different benefits than domestic transmission service users[91].

74. With respect to these two perspectives, Mr. Cliff Hamal's evidence states that "from a cost causality standpoint, exporters do not result in any incremental costs to HONI and receive an inferior level of service as they can be curtailed"[92]. He expanded on this during the oral proceeding as needing to recognize the reduced quality of service associated with exports and the fact the system wasn't built for exporters[93]. He recognized that there is a basis for having exporters pay out of sense of fairness but this must be weighed against whether or not other customers are really better off as result of such charges[94].

75. Similarly, the HQEM Evidence noted that electricity exports are not taken into consideration when planning the transmission system and that, when operating the electricity system, export transactions are curtailed before non-

[90] CRA Study, pages 39-40
[91] CRA Study, pages 42-46
[92] Hamal Evidence, page 3
[93] Volume 2, page 124, lines 16-25
[94] Volume 2, page 125, lines 1-18

dispatchable loads in the case of emergency[95]. This leads Elenchus to conclude[96] that when adopting their recommendation that a cost allocation study be undertaken prior to setting ETS tariffs, exporters should be considered a different class of customer and be assigned less cost responsibility.

76. Overall, all three sources generally suggest that exporters should be charged less for the use of the transmission system because: i) the system was not built for them and ii) their service is interruptible prior to that of domestic firm load.

77. With respect to the first point, VECC notes the Board dealt with this issue in RP-2009-0044 when considering net versus gross billing for the Network Service[97]. In that Decision the Board noted that there were fundamentally two different positions as to how the "user pay" principle should be applied when it comes to the sunk cost of the transmission system. The first position (which favoured gross billing) was that sunk costs should be paid for by those for whom the system was built. The second position (which favoured net billing) was that the customers should pay for the services used.

78. In VECC's view a similar parallel exists in the case of exporters and whether they should not be required to pay – since the system was not built for them – or should be required to pay a portion of the system's sunk costs as they use the Network system (including and especially the inter-ties).

79. In its RP-1999-0044 Decision the Board adopted the second approach (i.e. net billing for Network Services). In VECC's view a similar decision should be made in this case and exporters required to a pay portion of the fixed cost of the transmission network that they use.

[95] HQEM Evidence, page 6
[96] HQEM Evidence, pages 5 and 15.
[97] RP-2009-0044 Decision, pages 30-33

80. The second point goes to what should be the relative responsibility assigned to exporters as opposed to domestic loads with respect to the fixed (sunk) costs of the province's transmission network. In addressing this issue, both Mr. Hamal and Elenchus draw heavily on the interruptible nature of exports as opposed to domestic load as does the CRA Study.

81. However, and most importantly, during the oral phase of the current proceeding it became clear that the control actions referenced by Elenchus[98] as evidence that exporters were "interruptible" were really control actions associated with generation/energy shortfalls[99] and not deficiencies with respect to the transmission system where the rules are different[100].

82. The IESO witness testified that when it comes to transmission service and NERC transactional tagging exports are treated as firm service[101] and that if curtailments are required for transmission reasons they are treated as a firm transaction and done on a pro-rated basis[102]. Based on this clarification, VECC submits that there is not the difference between transmission service for exports and domestic loads initially suggested by the intervenors in their evidence nor, indeed, by CRA.

83. VECC acknowledges that congestion on the interties does lead to periods when exporters/traders cannot undertake all the transactions they may want to[103]. However, it is this same congestion that leads to price differentials between jurisdictions and increased margins for those traders/exporters who can export during such periods.

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[98] HQEM Evidence, page 6
[99] Volume 3, page 9, lines 22-28
[100] Volume 3, page 14, lines 17-20
[101] Volume 2, page 143, lines 22-28
[102] Volume 3, page 15, lines 13-15; Volume 3, page 101, line 14 to page 102, line 20 and Volume 3, page 105, line 21 to page 107, line 12
[103] Volume 3, page 105, lines 1-4

84. Overall, VECC generally agrees with the CRA witnesses who testified that the question of how much exporters should pay towards the cost of the transmission system is really a policy decision about what is fair weighing all of the other evidence[104].

4.5.2 Role of Cost Allocation Studies

85. In its Evidence Elenchus Research Associates states that since a cost allocation study had not been performed the "ETS Tariff is set in a manner that cannot be considered to be consistent with generally accepted regulatory principles or the standard practices of the OEB"[105]. HQEM's consultants went on to assert that it would be inappropriate to establish a tariff without first determining the causal costs at play[106] and that a proper cost allocation study was a prerequisite to setting ETS tariffs[107].

86. Mr. Todd (Elenchus Research Associates) testified that he had extensive experience in the electricity sectors in various parts of Canada, that regulators in all jurisdictions across Canada generally use the same (Bonbright-based) regulatory principles as the OEB and that they also undertook cost allocation studies to determine the costs to be recovered from their domestic customers[108]. In contrast, when asked if any Canadian jurisdiction used cost allocation in the setting of its ETS tariffs the only instance cited by the Elenchus witnesses was Manitoba Hydro's cost allocation, which has a separate export customer class[109].

87. However, when asked to confirm whether the Manitoba Hydro cost allocation model was used just for setting domestic rates or also ETS tariffs, Mr. Todd confirmed that they had not done a detailed review of the Manitoba Hydro

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[104] Volume 2, page 125, line 26 to page 126, line 3
[105] Volume 2, page 48, lines 17-20.
[106] Volume 2, page 51, lines 12-14
[107] Volume 3, page 58, lines 7-9
[108] Volume 2, page 191, line 21 to page 192, lines 9
[109] Volume 2, page 192, line 24 to page 193, line 9

cost allocation model. VECC notes that a careful reading of the Manitoba Public Utilities Board's Order 117/06[110] indicates that the inclusion of an export class in Manitoba Hydro's cost allocation methodology was solely to determine the net revenue from exports so that they could then be allocated to Manitoba Hydro's domestic customer classes. Indeed, it is clear from the survey undertaken by CRA that Manitoba Hydro (as a member of MISO) bases its ETS tariffs on the average cost ($/kW) of transmission[111], similar to the approach used in most of the jurisdictions surveyed by CRA[112].

88. VECC submits that it is evident that regulators generally do not consider a cost allocation study, such as that envisioned by Elenchus, to be a "prerequisite" for setting ETS tariffs.

89. Finally, VECC notes that undertaking a more formal cost allocation study with exports as a separate customer class may not be as simple as suggested by Elenchus[113]:

- As discussed in the earlier sections, the assumption that exports are interruptible and fundamentally different from firm domestic load was based on their interruptibility for reasons of generation shortfall and not transmission deficiencies. Whether there are any real differences from a transmission service perspective is a matter that would need to be more fully explored.
- As evidenced by the Manitoba Hydro case, the debate as to whether there should be a separate customer class for interruptible export customers separate from firm export customers is still going on 7 years after the regulator determined there should only be one export class.[114]
- Also, at a more fundamental level, cost allocation inherently involves the same debates regarding the interpretation of the "user pay

[110] Exhibit K2.7, pages 11-16
[111] Exhibit I, Tab 23, Schedule 1.02 (Staff 85), Attachment 1, page 21
[112] Exhibit I, Tab 23, Schedule 1.02 (Staff 85), Attachment 1, page 15
[113] Volume 3, page 56, line 27 to page 57, line 4
[114] Volume 2, page 194, lines 6-14

principle" as described earlier and not all stakeholders are likely to agree with Elenchus that cost causality is based strictly on who imposes cost on the system[115]. Indeed, there are examples, such as the net load billing issue referenced earlier, where the Board has departed in the past from such an approach.

5. EVALUATION OF ETS TARIFF OPTIONS

5.1 COMPARISON WITH NEIGHBOURING JURISDICTIONS

90. In its evaluation, the CRA Study notes that the Equivalent Average Network Service Rate is consistent with the methodology used to derive ETS rates in other jurisdictions[116]. At the same time, the Study notes that two of Ontario's neighbouring jurisdictions (PJM and MISO) have different rates for the peak and off-peak periods[117] and that the ETS tariffs are zero between ISONE and NYISO and between MISO and PJM[118].

91. VECC notes that the peak versus off-peak rate differences for PJM and MISO are simply a function of the formulae used in the standard FERC OATT requirements where off peak rates are derived by dividing the annual rate by 8760 hours whereas the peak rate is derived by dividing the annual rate by 4160 hours (i.e. 5x52=260 peak days times 16 hours per day)[119]. If this approach was applied to Ontario's ETS tariff it would result in an off-peak rate equivalent to the Network Service charge and an on-peak rate that was higher.

[115] Volume 3, page 57, lines 19-22.
[116] CRA Study, page 44
[117] CRA Study, page 44
[118] CRA Study, page 43
[119] Exhibit I, Tab 23, Schedule 1.02 (Staff 85), Attachment 1, page 15, Footnote #28

92. VECC also notes that those instances where there are zero tariffs between two jurisdictions are the result of bilateral agreements and not unilateral decisions by a single regulator/jurisdiction[120].

93. Finally, a key point not raised by CRA is that fact that in virtually all the neighbouring jurisdictions the firm and non-firm ETS tariffs are the same[121]. In VECC's view this is particularly relevant given the arguments made in this proceeding that the tariff for ETS should recognize that the associated transmission service is not at firm as that provided to domestic customers. VECC also notes that, in the only case where there is a difference (Hydro Quebec), the firm ETS tariff actually exceeds the equivalent domestic transmission network tariff[122].

94. Based on the foregoing, VECC submits that comparability with ETS tariffs in neighbouring jurisdictions supports the adoption of the Equivalent Network Service Rates and that this conclusion would apply regardless of differences in service conditions between domestic and export transmission customers.

5.2 EFFICIENCY

95. The CRA Study presented "Net Benefit to Ontario" calculations for three years: 2013, 2015 and 2017[123] based on the assumption that Ontario would join the Western Climate Initiative ("WCI") by 2015. Following the release of their initial results, stakeholders requested that CRA also present results based on the assumption that Ontario did not join the WCI until after 2017[124]. The overall results for both cases are summarized in the following two tables[125] in terms of change relative to the $2.00/MWh Status Quo.

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[120] CRA Study, page 43
[121] Exhibit I, Tab 23, Schedule 1.02 (Staff 85), Attachment 1, page 17
[122] Volume 2, page 146, lines 5-10
[123] CRA Study, page 41
[124] CRA Study, page 101 of 102
[125] The results presented are as calculated by CRA and do not reflect any adjustments that may be required as a result of the issues raised in Section 4.4 of VECC's submissions.

Table 1 CHANGES IN "NET BENEFIT TO ONTARIO" (C$2011 Millions)			
Ontario Joins WCI by 2015			
Scenario	**2013**	**2015**	**2017**
Unilateral Elimination	$17.6	-$0.3	-$4.5
Equivalent Average Network Charge	-$22.8	$4.2	-$1.0
Tiered Scenario A ($5.80 / $0)	$4.1	$5.9	-$4.4
Tiered Scenario B ($3.50 / $1.00)	$11.7	$3.4	-$2.5

Source: CRA Report, page 41

Table #2 CHANGES IN "NET BENEFIT TO ONTARIO" (C$2011 Millions)			
Ontario Joins WCI after 2017			
Scenario	**2013**	**2015**	**2017**
Unilateral Elimination	$17.6	$4.0	$6.1
Equivalent Average Network Charge	-$22.8	-$0.6	-$10.5
Tiered Scenario A ($5.80 / $0)	$4.1	$2.0	$7.3
Tiered Scenario B ($3.50 / $1.00)	$11.7	$2.9	$11.2

Source: CRA Study, Addendum, Table 13

5.2.1 Assumptions Regarding the WCI

96. During the oral proceeding Mr. Hamal indicated that, given what is known today, the assumption that Ontario would join the WCI by 2015 was not reasonable[126]. In its submissions[127] the IESO expressed a similar view.

97. VECC submits that for purposes of assessing the efficiency benefits of the various ETS tariff alternatives, the Board should rely on the "Net Benefit to Ontario" results assuming that Ontario does not join the WCI.

5.2.2 Which Years' Results

98. In both the WCI and non-WCI cases, the ranking of the scenarios based on "Net Benefit to Ontario" can change depending upon which year's results are used. In the Joint Witness Statement[128] Mr. Hamal and CRA agreed that if one was evaluating ETS tariff options for only 2013 and 2014 then the 2013 model results should be used. The main reason for this is that the initial CRA results assumed some major changes in the market in 2015[129] (e.g. the WCI). However, if one wanted to obtain some perspective on what would be the best alternative over a longer period (e.g. 2013-2017), Mr. Hamal acknowledged that one would have to include the 2015 and 2017 results in the consideration[130].

99. In contrast, the CRA witnesses suggested that if one wanted to set the ETS tariff for 2014 then it would be appropriate to take a weighted average of the results for 2013 and 2015 – giving a higher weighting to the 2013 results[131]. The CRA witnesses also indicated that the answer would be different again if one was postulating a tariff for a longer period of time, say five years[132]. In

[126] Volume 2, page 40, lines 16-27
[127] Page 7, Footnote #20
[128] Page 5
[129] Volume 2, page 85, lines 20-21.
[130] Volume 2, page 85, lines 22-28
[131] Volume 2, page 87, lines 17-22
[132] Volume 2, page 88, lines 15-21

that case, they agreed with Mr. Hamal that one would also want to look at the later years' results[133].

100. Considering that we are already approaching the second quarter of 2013 and that the analyses such as those undertaken by CRA are relatively costly[134] and require time to complete[135] VECC submits that the Board should set the ETS tariffs for 2013-2014 with a view that the approach adopted should also apply for 2015-2016.

101. In addition, VECC submits that for purposes of the Hydro One's next Transmission Revenue Requirement Application (i.e., 2015-2016), the Board should direct that the IESO prepare a report that outlines the extent to which market and system conditions have evolved as assumed in the current CRA Study and whether the ETS tariff needs to be revisited as part of the 2017-2018 Revenue Requirement Application in light of these changes.

102. Consistent with this approach, VECC submits that the Board should focus on the "Net Benefit to Ontario" results for 2013 and 2015 when assessing the efficiency implications of alternative ETS tariffs.

5.2.3 Adjustments and Results

103. The following tables summarize the 2013 and 2015 elements of the "Net Benefit to Ontario" calculations for each of the four ETS tariff alternatives as calculated by CRA.

[133] Volume 2, page 160, lines 8-21
[134] Volume 3, page 74, lines 25-26
[135] The current CRA study was initiated via a stakeholdering process in May 2011 and the final study was filed with the OEB in July 2012 – Exhibit H1, Tab 5, Schedule 2, pages 1-2

Table 3	2013 CHANGES IN "NET BENEFIT TO ONTARIO" WCI AFTER 2017 - C$2011 MILLIONS			
	UNILATERAL ELIMINATION	EQUIVALENT NETWORK RATE	2-TIER A (5.80/0)	2-TIER B (3.50/1.00)
Consumer				
- Market/GA	7.1	-10.1	5.2	2.9
- ETS Revenue	-42.0	50.8	-3.5	3.1
- Uplift	18.8	-16.6	-1.1	4.3
Producer				
- Market/GA	178.1	-170.6	-2.9	40.8
- Producion Costs	-168.5	141.4	7.8	-37.8
ICR	24.0	-17.7	-1.4	-1.5
Total Change	17.6	-22.8	4.1	11.7

Source: CRA Study, Appendix L

Table 4	2015 CHANGES IN "NET BENEFIT TO ONTARIO" WCI AFTER 2017 - C$2011 MILLIONS			
	UNILATERAL ELIMINATION	EQUIVALENT NETWORK RATE	2-TIER A (5.80/0)	2-TIER B (3.50/1.00)
Consumer				
- Market/GA	9.6	-24.3	5.4	3.6
- ETS Revenue	-46.2	83.8	3.9	1.3
- Uplift	5.4	-2.3	-1.8	-0.5
Producer				
- Market/GA	71.9	-66.6	-12.1	-1.1
- Producion Costs	-55.3	21.8	17.3	5.0
ICR	18.6	-13.0	-10.8	-5.4
Total Change	4.0	-0.6	2.0	2.9

Source: CRA Study, Addendum

104. As VECC has indicated above in Section 4.4, adjustments should be made to the CRA calculation of "Net Benefit to Ontario" in order to account for the fact the CRA analyses did not recognize that:

- Any redistribution of uplift costs due to changes in export levels will impact existing exporters as well as Ontario consumers and
- Intertie Congestion Revenues (Rents) fund Transmission Rights Payouts, a portion of which goes to transmission rights holders outside of Ontario.

105. With respect to the treatment of 2013 Uplift Revenues, the total revenues under the Status Quo case are $550.6 M[136] and the portion paid by Ontario consumers is 87%[137] or $480.8 M. The following table sets out the portion that will be paid by Ontario consumers under each of the four ETS options and the resulting change from the Status Quo case.

[136] Based on $3.33/MWh and total Ontario Demand (144.37 GWh) plus Exports (20.98 GWh) per Exhibit J2.4
[137] Exhibit J2.4

Table 5	2013 UPLIFT FEES CONTRIBUTION TO "NET BENEFT TO ONTARIO" (WCI AFTER 2017 - C$2011 MILLIONS)			
	UNILATERAL ELIMINATION	EQUIVALENT NETWORK RATE	2-TIER A (5.80/0)	2-TIER B (3.50/1.00)
Total Demand (GWh)				
- Ontario	144.4	144.4	144.4	144.4
- Exports	26.6	16.0	20.6	22.3
Total	171.0	160.4	165.0	166.6
Ontario %	84.43%	90.03%	87.49%	86.64%
Uplift Fees ($M)				
- Total	550.64	550.64	550.64	550.64
- Ontario Portion	464.9	495.7	481.8	477.1
Revised Contribution (Ontario SQ=480.78 M)	15.9	-14.9	-1.0	3.7
CRA Calculation	18.8	-16.6	-1.1	4.3
Sources: Exhibit J2.4				

106. This revision generally reduces the relative differences in efficiency gains/losses between the various options but does not change their relative merit order for 2013.

107. Unfortunately, a breakdown of the total 2015 exports under the various scenarios is not available for the “WCI After 2017” case and similar adjustments cannot be determined for that year.

108. With respect to the treatment of Intertie Congestion Revenues, the IESO was unable to provide any information as to the portion of Transmission Rights or resulting Transmission Rights Payouts that are made to parties outside of Ontario[138]. However, the following tables set out the resulting “Net Benefit to Ontario” values depending upon the percentage of the ICR revenues that accrues to Ontario in 2013 and 2015 respectively.

[138] Volume 2, page 172, lines 9-19 and Technical Conference, pages 8-9

Table 6	REVISED 2013 "NET BENEFIT TO ONTARIO" WCI AFTER 2017 - C$2011 MILLIONS			
	UNILATERAL ELIMINATION	EQUIVALENT NETWORK RATE	2-TIER A (5.80/0)	2-TIER B (3.50/1.00)
Total ICR Change	24	-17.7	-1.4	-1.5
CRA "Net Benefit"	17.6	-22.8	4.1	11.7
"Net Benefit to Ontario"				
% ICR to Ontario				
0%	-6.4	-5.1	5.5	13.2
10%	-4.0	-6.9	5.4	13.1
20%	-1.6	-8.6	5.2	12.9
30%	0.8	-10.4	5.1	12.8
40%	3.2	-12.2	4.9	12.6
50%	5.6	-14.0	4.8	12.5
60%	8.0	-15.7	4.7	12.3
70%	10.4	-17.5	4.5	12.2
80%	12.8	-19.3	4.4	12.0
90%	15.2	-21.0	4.2	11.9
100%	17.6	-22.8	4.1	11.7
Source:	Net Ontario Benefit values calculated in each instance as CRA Benefitvalue less ICR not accruing to Ont.			

Table 7	REVISED 2015 "NET BENEFIT TO ONTARIO" WCI AFTER 2017 - C$2011 MILLIONS			
	UNILATERAL ELIMINATION	EQUIVALENT NETWORK RATE	2-TIER A (5.80/0)	2-TIER B (3.50/1.00)
Total ICR Change	18.6	-13.0	-10.8	-5.4
CRA "Net Benefit"	4.0	-0.6	2.0	2.9
"Net Benefit to Ontario"				
% ICR to Ontario				
0%	-14.6	12.4	12.8	8.3
10%	-12.7	11.1	11.7	7.8
20%	-10.9	9.8	10.6	7.2
30%	-9.0	8.5	9.6	6.7
40%	-7.2	7.2	8.5	6.1
50%	-5.3	5.9	7.4	5.6
60%	-3.4	4.6	6.3	5.1
70%	-1.6	3.3	5.2	4.5
80%	0.3	2.0	4.2	4.0
90%	2.1	0.7	3.1	3.4
100%	4.0	-0.6	2.0	2.9
Source:	Net Ontario Benefit values calculated in each instance as CRA Benefitvalue less ICR not accruing to Ont.			

109. In each Table the highlighted values reflect those associated with the scenario that yields the greatest improvement in Net Benefit to Ontario[139]. As is evident from the tables, in both 2013 and 2015 the conclusion that Unilateral Elimination is the preferred tariff option from an efficiency perspective is only valid if virtually all of the benefit from the ICR change accrues to Ontario. Indeed, in 2015, if less than 80% of the benefit accrues to Ontario then the Unilateral Elimination option is the least preferred from an efficiency perspective.

110. As there is no evidence as to the percentage of the ICR that accrues to parties inside versus outside of Ontario, what the foregoing demonstrates is

[139] Note: In this case, the definition of "Net Benefit to Ontario" has been expanded beyond Ontario electricity consumers and producers to also include Transmission Rights holders in Ontario.

that both the overall and the relative efficiency benefits (as compared to the other scenarios considered) of the Unilateral Elimination scenario are most likely overstated by CRA in all years and possibly to the point that the "Net Benefits to Ontario" are greater under one of the other alternative ETS tariffs.

111. During this process VECC also sought information regarding the total Ontario surplus under the Status Quo scenario in order to put the "Net Benefit to Ontario" changes associated with the different ETS tariff alternatives into context but CRA did not calculate total overall surplus or total consumer surplus[140]. However, during the stakeholder process, the IESO noted[141] that the changes in producer surplus ranged between -0.5% and 0.2% of Ontario generation and consumer surplus changes ranged between -0.3% and 0.5% of total payments by consumers.

112. Overall, VECC submits that while the CRA study concludes that for the 2013-2015 period the "Unilateral Elimination" scenario offers the greatest efficiency improvements[142]:

- The conclusion that Unilateral Elimination is the most efficient option for the entire period is questionable if one properly accounts for the benefits associated with changes in Uplift Revenues and Intertie Congestion Revenues. Indeed, for 2013 and, particularly, 2015 one of the other alternative tariffs could well be more "efficient".
- Even without these adjustments, the efficiency gains associated with the Unilateral Elimination scenario, and indeed the efficiency changes associated with all of the ETS tariff alternatives considered, are small when considered in the context of the total Ontario market.

[140] Exhibit I, Tab 23, Schedule 5.07 (VECC #47)
[141] Exhibit I, Tab 23, Schedule 6.03 (HQEM #3), Attachment 1, page 3
[142] CRA Study, Addendum, Table 13

5.3 FAIRNESS

113. CRA's evaluation of the various ETS tariff alternatives includes consideration of "vertical fairness" based on the view that exporters impose different costs on the system and receive different benefits[143]. Similarly, in its evidence, Elenchus Research Associates relies on the same views in its recommendation that, in any cost allocation study, exporters be treated as a separate customer class. Indeed, it is these perceived differences between exporters and domestic customers that support the adoption of an ETS tariff which is less than the Equivalent Average Network Rate.

114. However, as already discussed in Section 4.5.1, the evidence in this proceeding that exports are "interruptible" while domestic customers are "firm" load is based on the treatment of export from a generation availability perspective[144]. Indeed, the evidence in this proceeding is that from a transmission perspective exporters are treated as firm load[145].

115. VECC's understanding is that the only real distinction between the service provided to exporters vs. domestic load is that, currently, transmission capacity is not explicitly built to facilitate exports and, as a result, congestion may arise and the IESO may have to limit the transactions that are to be accepted. However, once an export transaction is accepted by the IESO it is "firm" from a transmission service perspective; it only has a greater risk of curtailment than domestic firm load due to generation/energy supply considerations. Also, while this congestion may limit traders' opportunities to effect transactions it is also results in market price differentials between neighbouring jurisdictions and creates opportunities for traders to profit.

116. VECC notes that the Status Quo $2.00/MWh ETS tariff represents a discount of more than 65% off the current Equivalent Network Service Rate

[143] CRA Study, pages 42-46
[144] Volume 3, page 9, lines 15-28 and page 106, lines 1-11
[145] Volume 2, page 143, lines 20-25 and Volume 3, page 107, lines 1-12

($5.80/MWh). From a "those who use it should pay" perspective exports using province's transmission network have the same priority for transmission service as firm load. Whereas, from a "those who caused it to be built should pay" perspective the drivers behind the existence of the current intertie lines is a matter of history and likely do not reflect how/why they are currently used. Thus, from a fairness perspective, it is not clear to VECC that any differential is warranted based on differences in the transmission service provided and that, in any event, there is no justification for a differential as great as what currently exists.

5.4 ADMINISTRATIVE SIMPLICITY

117. The CRA Study does not raise any concerns regarding the Status Quo, Unilateral Elimination or the Equivalent Average Network Service rates from an administration/implementation perspective[146]. In the case of the two-tiered rate options the Study notes that market rules in Ontario would require amendments from both a data collection and settlement perspective[147].

118. During his testimony Mr. Laurin noted that the adoption of a two-tiered tariff (i.e. different peak vs. off-peak rates) is not compatible with the fact that Transmission Rights are bought/traded on a monthly or annual basis whereas a tiered tariff will affect the relative profitability of transactions in the peak vs. off-peak periods[148].

119. Based on these observations, it is VECC's view that implementation of neither of the two-tiered options would be able to proceed immediately and that further review would be required as how best it could be done and what other market rules and mechanisms would have to be adjusted.

[146] CRA Study, pages 42-44
[147] CRA Study, pages 45-46
[148] Volume 3, page 141, line 19 to page 142, line 9

5.5 OVERALL CONCLUSIONS

120. Drawing on the foregoing discussion and submissions, the following paragraphs set out VECC's recommendation regarding ETS tariffs for 2013-2014 and beyond.

121. Given the implementation and market issues associated with the two-tiered options, VECC submits that neither should be considered for 2013-2014. Indeed, VECC initially considered that one of the key advantages of the two-tiered options was the potential they offered to help address the SBG issue, which primarily arises in off-peak periods. However, the CRA has found that SBG does not materially change under any of the tariff options[149].

122. Of the remaining three options, the merits of the Unilateral Elimination option from an efficiency perspective rely on the proportion of ICR that accrues to Ontario, particularly in 2015. However, from both a fairness and comparability with other jurisdictions, the Unilateral Elimination option is the less preferred than either the Status Quo or the Equivalent Network Service rate options, where the latter performs much better from both aspects.

123. Given the small differences in measured efficiency that exist between the three options and the uncertainty about the actual efficiency gains associated with the Unilateral Elimination option, VECC submits that the Board should adopt the Equivalent Network Service option.

124. In VECC's view there is little difference between transmission service as provided to export as opposed to domestic customers. However, should the Board decide otherwise, it is VECC's view that any discount warranted would be nominal at most and substantially less than the current 65% discount represented by the $2.00/MWh tariff.

[149] Volume 2, page 27, lines 12-15

125. Finally VECC submits that the Board should set the ETS tariffs for 2013-2014 with a view that the approach adopted should also apply for 2015-2016. In addition, VECC submits that for purposes of the Hydro One's next Transmission Revenue Requirement Application (i.e., 2015-2016), the Board should direct that the IESO prepare a report that outlines the extent to which market and system conditions have evolved as assumed in the current CRA Study and whether the ETS tariff needs to be revisited as part of the 2017-2018 Revenue Requirement Application in light of these changes.

6. RECOVERY OF REASONABLY INCURRED COSTS

126. VECC submits that its participation in this proceeding has been focused and responsible. Accordingly, VECC requests an award of costs in the amount of 100% of its reasonably-incurred fees and disbursements.

All of which is respectfully submitted this 22nd day of March 2013.