



# ONTARIO ENERGY BOARD

**FILE NO.:** EB-2021-0243

**Uniform Transmission Rates**

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**VOLUME:** Technical Conference

**DATE:** July 28, 2022

EB-2021-0243

THE ONTARIO ENERGY BOARD

Generic Hearing on Uniform Transmission Rates-Related  
Issues and the Export Transmission Service  
Rate

Technical Conference held by videoconference  
from 2300 Yonge Street,  
25th Floor, Toronto, Ontario,  
on Thursday, July 28, 2022  
commencing at 9:30 a.m.

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TECHNICAL CONFERENCE  
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MICHAEL PRICE	Board Staff
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DAVID BROWN	
ASHLEY SANASIE	
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HELOISE APESTEGUY-REUX	
PATRICK DUFFY	Independent Electricity System
TOM CHAPMAN	Operator (IESO)
JASON KWOK	
GEORGE DIMITROPOULOS	
JONATHAN MCGILLIVRAY	Anwaatin
SHELLEY GRICE	Association of Major Power
	Consumers in Ontario (AMPCO)
JOHN VELLONE	Association of Power Producers of
DAVID BUTTERS	Ontario (APPrO)
BRADY YAUCH	
TRAVIS LUSNEY	
SCOTT POLLOCK	Canadian Manufacturers & Exporters
	(CME)
JULIE GIRVAN	Consumers Council of Canada (CCC)
TOM LADANYI	Energy Probe Research Foundation
ROGER HIGGIN	
DWAYNE QUINN	Federation of Rental-housing
	Providers of Ontario (FRPO)
RANDY AIKEN	London Property Management
	Association (LPMA)
NAREN PATTANI	
MICHAEL BROPHY	Pollution Probe
JOHN DeVENZ	

A P P E A R A N C E S

RICHARD STEPHENSON	Power Workers' Union (PWU)
MARK RUBENSTEIN	School Energy Coalition (SEC)
BILL HARPER	Vulnerable Energy Consumers Coalition (VECC)

I N D E X   O F   P R O C E E D I N G S

<u>Description</u>	<u>Page No.</u>
--- On commencing at 9:30 a.m.	1
Land Acknowledgement	1
Preliminary Matters	2
Appearances	4
<b>HYDRO ONE NETWORKS INC. - PANEL 1</b>	<b>8</b>
<b>S. Vetsis, C. Li</b>	
Examination by Mr. Harper	8
Examination by Mr. Pattani	12
Examination by Mr. Vellone	19
Continued Examination by Mr. Pattani	26
Examination by Mr. Rubenstein	28
Examination by Dr. Higgin	43
--- Recess taken at 11:08 a.m.	52
--- On resuming at 11:25 a.m.	52
<b>HYDRO ONE NETWORKS INC. - PANEL 2</b>	<b>52</b>
<b>D. DesLauriers</b>	
Examination by Mr. Vellone	52
Examination by Mr. Pattani	60
Examination by Mr. Rubenstein	65
Examination by Mr. Pietrewicz	71
Continued Examination by Mr. Vellone	82
--- Luncheon recess taken at 12:18 p.m.	85

I N D E X   O F   P R O C E E D I N G S

<u>Description</u>	<u>Page No.</u>
--- On resuming at 1:06 p.m.	85
<b>INDEPENDENT ELECTRICITY SYSTEM OPERATOR - PANEL 4</b> <b>T. Chapman, J. Kwok</b>	<b>86</b>
Examination by Mr. Rubenstein	87
Examination by Mr. Harper	120
--- Recess taken at 2:25 p.m.	130
--- On resuming at 2:45 p.m.	131
Examination by Mr. Harper	131
Examination by Mr. Pattani	145
Examination by Mr. DeVenz	168
Examination by Ms. Grice	174
Examination by Mr. Pietrewicz	176
--- Whereupon the hearing adjourned at 4:33 p.m.	193

E X H I B I T S

<u>Description</u>	<u>Page No.</u>
EXHIBIT NO. KT 1.1: APPRO COMPENDIUM FOR HYDRO ONE PANEL 1	20

U N D E R T A K I N G S

<u>Description</u>	<u>Page No.</u>
UNDERTAKING NO. JT1.1: WITH REFERENCE TO IR I-1-10, HYDRO ONE TO CONFIRM (A) THAT IT PLANS ACCORDING TO ORTAC; (B) FOR INTERNAL TRANSMISSION PLANNING, WHEN HYDRO ONE INVESTS IN ITS OWN INTERNAL LINES, WHETHER THE ABILITY TO EXPORT GUIDES HYDRO ONE'S THINKING, OR, TO PROVIDE A MORE GENERIC, HIGH-LEVEL RESPONSE OF THE DEGREE TO WHICH HYDRO ONE TAKES INTO ACCOUNT INTER-TIE CAPACITY WHEN IT INVESTS IN THE INTERNAL TRANSMISSION SYSTEM.	18
UNDERTAKING NO. JT1.2: TO TAKE BACK AND CONSIDER WHETHER THERE COULD BE A SIMPLISTIC, MECHANISTIC WAY OF ADJUSTING THE ETS RATE DURING A RATE-SETTING TERM, CONSISTENT WITH THE STRUCTURE THAT HAS BEEN PROPOSED.	36
UNDERTAKING NO. JT1.3: HYDRO ONE TO WORK WITH IESO (A) TO PROVIDE A STEP-BY-STEP EXPLANATION OF HOW THE DISBURSEMENT OF THE TRCA FLOWS INTO CUSTOMER BILLS; (B) TO EXPLAIN HOW THIS COMPARES TO THE TREATMENT OF THE ETS RATE AND HOW IT FLOWS THROUGH TO CUSTOMER BILLS; TO EXPLAIN THE DIFFERENCE AND ALLOCATION BETWEEN THE TRCA AND THE ETS; (C) TO RESPOND USING LAYMAN'S LANGUAGE, AS OPPOSED TO THE LANGUAGE OF THE MARKET RULES; (D) TO EXPLAIN THE WHY OF THIS DISBURSEMENT	41
UNDERTAKING NO. JT1.4: HYDRO ONE TO PROVIDE PUBLICLY AVAILABLE INFORMATION ON THE RATIONALE FOR OFFSETS MADE IN THE NEW YORK MARKET.	59
UNDERTAKING NO. JT1.5: TO PROVIDE A RESPONSE TO VECC IR. NO. 4.1, SUB BULLETS (I) THROUGH (V), NARROWING THE SCOPE TO ONLY NEW YORK	60
UNDERTAKING NO. JT1.6: TO FILE OR PROVIDE A LINK TO THE BRATTLE REPORT.	90



U N D E R T A K I N G S

<u>Description</u>	<u>Page No.</u>
UNDERTAKING NO. JT1.7: IESO TO RECONCILE TABLE 16 AND TABLE 8 IN OEB, THE RESPONSE TO OEB IR 1, ATTACHMENT 1.	101
UNDERTAKING NO. JT1.8: IESO TO LOOK TO PROVIDE A VERSION OF TABLE 23 WITHOUT EXPORTS, IF IT CAN.	102
UNDERTAKING NO. JT1.9: IESO TO RESPOND TO MR. RUBENSTEIN'S QUESTION ABOUT CHANGE IN SUPPLY CONDITIONS OVER THE NEXT 10 YEARS AS COMPARED TO THOSE CONSIDERED IN THE 2012 CRA STUDY.	103
UNDERTAKING NO. JT1.10: IESO TO ADVISE FIRST OF ALL WHAT EXACTLY THE IESO WOULD BE CONTRACTING FOR WITH ERIE LAKE AND HOW THOSE COSTS WOULD BE RECOVERED AND HOW THOSE COSTS WOULD BE INCORPORATED AS THEY ARE EXPORT-DRIVEN, INsofar AS IT IS GOING TO BE AN EXPORT-DRIVEN COMPONENT TO THE PROJECT, WHO THOSE COSTS WOULD BE RECOVERED FROM AND HOW EXPORTERS WOULD PAY FOR THEIR SHARE OF THOSE COSTS, IF AT ALL, AND TO ADVISE OF THE VARIOUS OPTIONS OR WHAT IF IT'S JUST AT A HIGH LEVEL LOOK LIKE, TO UNDERSTAND IF THIS PROJECT IS IN PLACE AND THERE IS EXPORT COSTS WHO IS PAYING FOR IT AND HOW THIS WOULD WORK OUT.	108
UNDERTAKING NO. JT1.11: THE IESO TO PROVIDE ITS VIEW WITH REFERENCES TO APPROPRIATE HISTORICAL DOCUMENTATION AS TO THE PURPOSE OF THE ICP MECHANISM.	129
UNDERTAKING NO. JT1.12: IESO TO PROVIDE THE KEY WEB LINKS TO PLACES ON THE WEBSITE WHERE THE PROCUREMENT ACTIVITIES ARE BEING DESCRIBED.	145
UNDERTAKING NO. JT1.13: IESO TO RESPOND TO MR. PATTANI'S QUESTION ABOUT MEETING AREA REQUIREMENTS IN A PARTICULAR LOAD AREA, LIMITED UP TO THE POINT OF REDUCING EXPORT CAPABILITY	151

1 Thursday, July 28, 2022

2 --- On commencing at 9:30 a.m.

3 MR. SIDLOFSKY: Good morning, everyone. My name is  
4 James Sidlofsky, and I am counsel with the Ontario Energy  
5 Board in this matter. We're here today for the virtual  
6 technical conference on the export transmission rate  
7 component of the OEB's generic hearing on uniform  
8 transmission rates.

9 The OEB is holding a public hearing on its own motion  
10 under sections 19, 21, and 78 of the OEB Act to consider  
11 various issues related to Ontario's uniform transmission  
12 rates.

13 This first phrase (sic) of the UTR hearing will focus  
14 on reviewing and setting the ETS rate.

15 This technical conference was scheduled by the Board  
16 through Procedural Order No. 2 dated September 17th, 2021  
17 and is scheduled for today and tomorrow. I will say more  
18 about that in a moment.

19 I would like to begin with a land acknowledgement from  
20 Ashley Sanasie, our hearings advisor.

21 **LAND ACKNOWLEDGEMENT**

22 MS. SANASIE: The Ontario Energy Board acknowledges  
23 that our headquarters in Toronto is located on the  
24 traditional territory of many nations, including the  
25 Mississaugas of the Credit, the Anishnaabeg, the Chippewas,  
26 the Haudenosaunee, and the Wendat peoples. This area is  
27 now home to many diverse First Nations, Inuit, and Métis  
28 people. We also acknowledge that Toronto is covered by

1 Treaty 13 with the Mississaugas of the Credit.

2 We are grateful for the opportunity to gather and work  
3 on this land and recognize our shared responsibility to  
4 support and be good stewards of it.

5 **PRELIMINARY MATTERS**

6 MR. SIDLOFSKY: Thank you. Now, as most of you know,  
7 technical conferences don't take place in front of the  
8 panel of commissioners who are hearing the case, but they  
9 are transcribed, and the transcript forms part of the  
10 record in this proceeding. This session is also being  
11 broadcast and will be on air throughout the conference,  
12 except for breaks.

13 The other procedural matter I would like to remind  
14 parties of is that this is a technical conference. It is  
15 not intended to be a cross-examination on the evidence, but  
16 rather, as the OEB stated in Procedural Order No. 2, the  
17 technical conference is being held to provide for  
18 clarification of interrogatory responses on Hydro One,  
19 IESO, and APPrO evidence.

20 Ms. Sanasie circulated the schedule for both days of  
21 the technical conference yesterday after parties and OEB  
22 staff provided time estimates and areas of questioning. We  
23 intend to follow that schedule with regard to the order of  
24 questioning. And I would like to thank those of you who  
25 were able to rethink your time estimates, and we now look  
26 to be able to finish in the two days allotted for this.

27 We ask all parties to carefully consider the time they  
28 need for questions and try to reduce those estimates where

1 possible, and to coordinate their questions with parties  
2 with similar interests.

3 I ask you to make your best efforts to keep to your  
4 estimated times and consider whether it will be possible to  
5 shorten those times where other parties may have covered  
6 areas in which you had similar questions.

7 As you will have seen, the order of witness panels has  
8 changed in the current version of the schedule for today  
9 and tomorrow.

10 We will begin with Hydro One staff, followed by  
11 Charles River Associates, the IESO, APPrO, and we will  
12 finish with Elenchus.

13 The Hydro One staff, Charles River Associates, and  
14 IESO panels are scheduled for today, with the APPrO and  
15 Elenchus panels on for tomorrow.

16 Finally, before we go into appearances, just a few  
17 reminders about technical matters, because this is a  
18 virtual setting. First, I would ask intervenors who are  
19 not asking questions to mute their audio and turn off their  
20 cameras when witnesses are being questioned by someone  
21 else.

22 Second, while there is a chat function available on  
23 the Zoom platform, nothing in the chat platform will be  
24 recorded or appear on the transcript, so you can send  
25 messages to each other or to the group, but they will not  
26 be transcribed.

27 Third -- and I believe everyone may have done this  
28 already -- we ask that everyone ensure that the name that

1 they have associated with their picture right now is their  
2 full name so that the court reporter can accurately record  
3 what is said.

4 Finally, for this virtual session we ask that you  
5 repeat your name and whom you represent when you begin your  
6 questions. That will assist the court reporter in  
7 transcribing this matter. That's also important if you are  
8 stepping in to ask a follow-up question.

9 We're planning one 15-minute break in each of the  
10 morning and afternoon and a 45-minute lunch break is  
11 scheduled for approximately 12:20 this afternoon.

12 Today's morning break is planned for 11:10 and the  
13 afternoon break is planned for approximately 2:50 this  
14 afternoon.

15 On that note, I will introduce the members of OEB  
16 staff who are here with me this morning and I will then  
17 move on to appearances. Just bear with me for a moment.  
18 With me this morning are Michael Price, the case manager  
19 for this proceeding; Andrew Pietrewicz; Tracy Garner; David  
20 Brown; and you have already met Ashley Sanasie.

21 Our IT group will be available if any technical issues  
22 arise.

23 So I will begin with by taking appearances in the  
24 order set out in the technical conference schedule. I will  
25 begin with Hydro One.

26 **APPEARANCES:**

27 MR. MYERS: Thank you. It is Jonathan Myers, counsel  
28 for Hydro One, and with me today is Heloise Apesteguy-Reux,

1 senior regulatory advisor.

2 MR. SIDLOFSKY: Good morning. I will just skip to the  
3 IESO, because they have a witness panel. So is someone  
4 here from the IESO this morning?

5 MR. DUFFY: Good morning. It is Patrick Duffy,  
6 counsel with the IESO, and with me this morning are Tom  
7 Chapman, who is the senior manager, wholesale market  
8 development, who will be on our panel, as well as Jason  
9 Kwok, supervisor, market evolution and integration, and we  
10 should also have somewhere George Dimitropoulos on the line  
11 as well, who will not be part of our panel, but he is part  
12 of our regulatory team.

13 MR. SIDLOFSKY: Great, thanks, Patrick. I will move  
14 on to Energy Probe.

15 MR. LADANYI: Tom Ladanyi here for Energy Probe. Good  
16 morning, everyone, and I also would like to enter an  
17 appearance for Dr. Roger Higgin. Roger will join us after  
18 11:00 a.m. this morning.

19 MR. SIDLOFSKY: Thanks, Tom. Moving on to VECC.

20 MR. HARPER: Good morning. My name is Bill Harper.  
21 I'm a consultant for VECC, the Vulnerable Energy Consumers  
22 Coalition.

23 MR. SIDLOFSKY: Good morning, Bill.

24 Sorry. AMPCO.

25 MS. GRICE: Good morning. I'm Shelley Grice,  
26 representing the Association of Major Power Consumers in  
27 Ontario.

28 MR. SIDLOFSKY: Good morning, Shelley. Naren Pattani,

1 are you here this morning?

2 MR. VETSIS: You may be on mute, Mr. Pattani.

3 MR. PATTANI: Good morning. I'm Naren Pattani. I am  
4 an individual intervenor in this proceeding, thank you.

5 MR. SIDLOFSKY: Good morning, Mr. Pattani. Thank you.

6 MR. PATTANI: Good morning.

7 MR. SIDLOFSKY: Moving on to Anwaatin.

8 MR. MCGILLIVRAY: Good morning. Jonathan McGillivray,  
9 counsel for Anwaatin.

10 MR. SIDLOFSKY: Good morning, Jonathan. APPrO.

11 MR. VELLONE: Good morning, John Vellone, counsel to  
12 APPrO, and I will enter an appearance for Brady Yauch and  
13 Travis Lusney from Power Advisory, who are also here today.

14 MR. SIDLOFSKY: Good morning, John. School Energy  
15 Coalition?

16 MR. RUBENSTEIN: Good morning. Mark Rubenstein,  
17 counsel for the School Energy Coalition.

18 MR. SIDLOFSKY: Good morning, Mark. Pollution Probe?

19 MR. BROPHY: Good morning, everybody. It is Michael  
20 Brophy on behalf of Pollution Probe. I will only be online  
21 sporadically today, but John DeVenz will be leading for the  
22 technical conference. I will hand it over to John DeVenz  
23 to make an appearance.

24 MR. SIDLOFSKY: Good morning, Michael.

25 MR. DeVENZ: Good morning.

26 MR. BROPHY: If John is online, I think.

27 MR. SIDLOFSKY: Are you on the line, John?

28 MR. DeVENZ: Can you hear me?

1 MR. SIDLOFSKY: Yes.

2 MR. DeVENZ: Yes, John DeVenz with Pollution Probe.  
3 Good morning.

4 MR. SIDLOFSKY: Good morning. And finally, in terms  
5 of the list of questioners, CME.

6 MR. POLLOCK: Good morning, everyone. Scott Pollock,  
7 counsel for Canadian Manufacturers & Exporters.

8 MR. SIDLOFSKY: Good morning, Scott. If there are  
9 other intervenor representatives in attendance who aren't  
10 planning to ask questions of the panels but who want to  
11 enter an appearance, could you please identify yourself.

12 MS. GIRVAN: Julie Girvan on behalf of the Consumers  
13 Council of Canada. Good morning.

14 MR. SIDLOFSKY: Good morning, Julie.

15 MR. AIKEN: Randy Aiken on behalf of the London  
16 Property Management Association.

17 MR. SIDLOFSKY: Good morning, Randy. Last call.  
18 Anyone else?

19 MR. BUTTERS: David Butters, APPrO.

20 MR. SIDLOFSKY: Good morning, David.

21 Mr. BUTTERS: Good morning, everybody.

22 MR. SIDLOFSKY: Okay. I think everyone has had a  
23 chance to have their introduction. If there are no  
24 preliminary matters -- does Hydro One have any?

25 MR. MYERS: No preliminary matters from us, thank you.

26 MR. SIDLOFSKY: Then I will -- Mr. Myers, I will ask  
27 you to introduce the first panel.

28 MR. MYERS: Great. Thanks very much. So our first



1 panel from Hydro One has two members, Stephen Vetsis,  
2 director of pricing and regulatory policy; and Clement Li,  
3 manager of pricing. So they're now available for, it looks  
4 like Energy Probe.

5 **HYDRO ONE NETWORKS INC. - PANEL 1**

6 **Stephen Vetsis**

7 **Clement Li**

8 MR. SIDLOFSKY: That will be Energy Probe, I think.

9 MR. MYERS: Thank you.

10 MR. LADANYI: I sent a note last night -- it is Tom  
11 Ladanyi for Energy Probe. I sent a note last night to  
12 Ashley saying that Roger Higgin, who will be questioning  
13 panel 1, will not be available until 11 a.m. So if you can  
14 put us at the back of the schedule. I can't question this  
15 panel.

16 MR. SIDLOFSKY: Okay. We can do that. Could we move  
17 on to VECC then, please.

18 **EXAMINATION BY MR. HARPER:**

19 MR. HARPER: Good morning again. For the court  
20 reporter, my name is Bill Harper. I'm a consultant for  
21 VECC.

22 I don't have a lot of questions and it shouldn't take  
23 a lot of time. But to start off, in response -- you don't  
24 have to turn this up, but in response to Staff 1A, Hydro  
25 One stated what it viewed as being the purpose of the ETS  
26 rate.

27 And then in response to VECC 1.2, you set out a number  
28 of principles that you -- that you said should be

1 considered in determining the rate. And it is really VECC  
2 1.2 I would like to turn to, schedule 1, tab 5, VECC 1.2.  
3 I think we're looking at the second paragraph in the  
4 response there.

5 Now, one of the principles you have set out there is  
6 fairness. And I guess when you say fairness, I would like  
7 to ask you how do you see fairness being assessed?

8 MR. VETSIS: Good morning, Mr. Harper. Stephen Vetsis  
9 here, Hydro One.

10 I think, you know, fairness can be assessed quite  
11 broadly. I think one item that comes to mind certainly  
12 would be in terms of fairness in terms of the -- recovering  
13 an appropriate level of costs from all parties who benefit.

14 MR. HARPER: So I guess within that context, you would  
15 agree that one way fairness is sometimes assessed, at least  
16 one way is by way of a cost allocation study?

17 MR. VETSIS: I believe that would be one of the inputs  
18 that would inform fairness, yes.

19 MR. HARPER: Now, another consideration you have  
20 identified is efficiency. When you use the term  
21 efficiency, what do you mean? In particular, is this  
22 different from the point you make in the following  
23 paragraph about setting an ETS rate that results in the  
24 lowest overall cost and which provides the greatest overall  
25 benefits to the electricity system. Is that what you mean  
26 by efficiency? Or is there something else you have in  
27 mind?

28 MR. VETSIS: Mr. Harper, do you mind giving us a quick

1 breakout room to discuss?

2 MR. HARPER: Sure, no problem.

3 [Witness panel confers in breakout room.]

4 MR. VETISIS: Mr. Harper, can you hear us?

5 MR. HARPER: Yes, I can, thank you.

6 MR. VETISIS: The context -- as we note in the  
7 paragraph above, the context of these three principles are  
8 the generic Bonbright principles. And as I noted earlier,  
9 they can encompass quite a few things.

10 I think when you think of efficiency, a few things  
11 come to mind. Certainly the notion below, a more efficient  
12 use of the system. I think efficiency, you know, other  
13 things that come to mind as well are the, you know,  
14 simplicity of administration, understandability, those  
15 things as well I think come to mind as well when I think of  
16 that category.

17 But ultimately, when we mention these three, we're  
18 referring to those high-level Bonbright principles.

19 MR. HARPER: Fine, thank you. In that second  
20 paragraph, you also make reference to needing to consider  
21 the context for setting the ETS rate and the fact it  
22 differs from the context for setting distribution or  
23 transmission rates.

24 I was wondering if you can explain a bit more what you  
25 mean by that; that's really the last sentence there.

26 MR. VETISIS: I think what we mean by that is kind of  
27 what we get to in the paragraph below, which is really --  
28 ultimately, as a utility, when it comes to ETS revenues,

1 we're sort of in a neutral position. To the extent that  
2 the rate is reduced, what will occur, we will still recover  
3 the same total revenue requirement. It will be recovered  
4 through the UTRs rather than the ETS rates.

5 I think what we talk about really is that last  
6 sentence, which talks about weighting the relative benefits  
7 of the, you know, those broader system benefits which have  
8 been discussed by the IESO, with kind of direct cost  
9 causality and cost recovery.

10 And I think it is more that broader policy context of  
11 overall objectives. That's why we talk about the context  
12 being a little bit different here.

13 MR. HARPER: When you say primary focus and weighting,  
14 I don't want to put words in your mouth, but would you  
15 agree that really it's a matter of the amount of weight you  
16 put on those various principles, as opposed to focussing  
17 solely just on one of them?

18 MR. VETSIK: Yeah. I think really, Bill, I think this  
19 whole proceeding comes down to finding that right balance.

20 MR. HARPER: Fine. And finally in that second  
21 paragraph, you also state that apart from cost recovery,  
22 fairness and efficiency may not be the only principles that  
23 should be considered. Did you have any other specifically  
24 in mind, or was that just to make sure that you left  
25 yourself open in case somebody raised something else?

26 MR. VETSIK: You know me well, Bill, but I think  
27 nothing else jumps to mind. But there are a lot of smart  
28 people in this room who, you know, there may be others that

1 the OEB should consider in rendering its decision.

2 MR. HARPER: Thank you very much. Those are all of my  
3 questions today. Thank you very much.

4 MR. SIDLOFSKY: Thanks, Mr. Harper. We will move on  
5 to AMPCO.

6 MS. GRICE: Good morning. Upon further review, AMPCO  
7 no longer has any questions for Hydro One.

8 MR. SIDLOFSKY: Ms. Grice, thank you. We're on to  
9 you, Mr. Pattani.

10 **EXAMINATION BY MR. PATTANI:**

11 MR. PATTANI: Thank you very much. I just want to  
12 alert you that I am not a day-to-day Office user, so I will  
13 be reluctant to put in share screen and so on. But if you  
14 need it, I will do it.

15 Otherwise, whatever I need is background material. I  
16 submitted them in my letter to you, so hopefully we can use  
17 that. Anyway, if it comes to extreme cases, I will try it  
18 and hopefully I don't shut it down.

19 So I have only one question for Hydro One. Good  
20 morning, Mr. Li and Mr. Vetsis.

21 I would like to seek clarification from Hydro One in  
22 the matter of consideration of exports and planning  
23 internal transmission in Ontario.

24 This matter was addressed in IR 11.10 and PA,  
25 Pattani 3.

26 First, I would like to note that I am not seeking  
27 clarification related to increasing inter-area capacity or  
28 any transmission for the specific purpose of enabling

1 additional exports.

2 Clarification is necessary, though, about the  
3 management and planning of upstream Ontario transmission  
4 within Ontario that feeds power to inter-tie for exports.  
5 Power Advisory indicated in their response that they  
6 welcome comments from Hydro One on this matter and I am  
7 sure -- I mean, in case they ask them directly, that's  
8 fine. But I think it is good to have this clarification  
9 from Hydro One.

10 So can you please clarify whether Hydro One takes into  
11 account consideration of preservation of existing export  
12 capability or maintaining export capability when planning  
13 maintenance, repairs and system development for inter-tie  
14 transmission that connects to parties.

15 MR. LI: It is Clement Li from Hydro One. When it  
16 comes to maintaining and restoring existing inter-tie  
17 capability, we do take that into consideration when it  
18 comes to our investment planning process.

19 So what we mean by -- we don't forecast -- our  
20 transmission planning people, we don't forecast export  
21 volume and use that to do our investment planning, no.

22 But when it comes to maintaining and existing inter-  
23 tie capability, that is part of our consideration when we  
24 do our investment planning. Yes.

25 MR. PATTANI: So Mr. Li, two things there. First of  
26 all, I am not talking about inter-ties themselves. I am  
27 talking about the internal transmission, which is an  
28 Ontario transmission within Ontario that feeds to the

1 border; for example, the lines west of London that feed to  
2 the inter-tie between Ontario and Michigan. So I am  
3 talking about Ontario transmission.

4 MR. LI: Yes.

5 MR. PATTANI: And so you can come back to that in the  
6 context of maintenance and so on for that.

7 The second thing I would like to ask is, I believe  
8 Hydro One has a planning department?

9 MR. LI: Yes. Transmission planning, yes.

10 MR. PATTANI: Yes. The transmission planning  
11 department in Hydro One, does it follow the criteria and  
12 the requirements laid out by ORTAC, the Ontario Resource  
13 and Transmission (audio dropout) Criteria?

14 MR. LI: Can we take a breakout room?

15 MR. PATTANI: Yes.

16 MR. LI: Just for a second?

17 MR. PATTANI: Hmm-hmm.

18 [Witness panel confers in breakout room.]

19 MR. LI: Can you hear me?

20 MR. PATTANI: Yes.

21 MR. LI: Okay. Sorry. There are two mute buttons.  
22 I'm sorry, I just want to make sure I hit the right one.

23 Mr. Pattani, we're not sure. So we have to go back  
24 and check with the -- our planning team and confirm that.

25 MR. PATTANI: Okay. So if you are going to take this  
26 understanding -- undertaking, can you please answer that  
27 based on criteria requirements that you are obliged to  
28 observe, for example in the focus area being studied, if

1 the load is increasing to beyond the load-making capability  
2 of the system, can you defer Ontario transmission  
3 investments by reducing the allowance for exports to below  
4 the export capability of the downstream inter-ties?

5 In answering this question, please take into  
6 consideration the section 3.2 of ORTAC, the submission that  
7 you have made about a new transmission line between west of  
8 Chatham and the west of Chatham project for which Hydro One  
9 has commenced work, as well as the IESO reports last year  
10 summarizing the need for what transmission in Windsor-Essex  
11 region and the need for what system reinforcements west of  
12 London.

13 Now, I would like to stress one thing. I am aware  
14 that IESO does a lot of planning work. I believe Hydro One  
15 also does other planning work. Hydro One is the one that  
16 submits applications to the OEB.

17 So normally the public documents that we see are  
18 really from Hydro One, for example in terms of west of  
19 Chatham transmission reinforcement.

20 So in that context, I believe it is -- Hydro One is  
21 obliged to answer a question to do with submission  
22 planning, and that's where I leave it. So if you can take  
23 that undertaking, please, and let us know.

24 MR. SIDLOFSKY: I am going to just stop people right  
25 there. I will just ask you to hang on for a second, Mr.  
26 Pattani. That was a very long question, and I am fine with  
27 that. I don't have to answer it. But I just want to make  
28 sure that the panel understands the undertaking that they



1 are giving.

2 So perhaps, Mr. Vetsis or Mr. Li, can you indicate --  
3 sorry, can you indicate what it is that you are prepared to  
4 provide by way of an undertaking.

5 MR. VETISIS: What I am hearing from Mr. Pattani is  
6 there is two things. He would like confirmation that we  
7 plan according to -- we take into account, I believe it is  
8 ORTAC, and the second is that for internal transmission  
9 planning, when we invest in our own internal lines, the way  
10 that we consider the maintaining the capacity, ability, the  
11 ability to -- the capacity for exports on the inter-ties,  
12 and I think what I heard Mr. Pattani say is he just  
13 provided a few examples of assets close to inter-ties where  
14 these considerations might be to guide us in our thinking  
15 as we provide him with a more generic, high-level response  
16 of the degree to which we take into account inter-tie  
17 capacity when we invest in our own -- in the internal  
18 transmission system.

19 Does that sound right, Mr. Pattani?

20 MR. PATTANI: Yes. That sounds right. And as I said,  
21 the examples I quoted will give you some direction as to  
22 whether you will answer one way or the other.

23 MR. MYERS: If I may, just for some further context,  
24 can you point us to the interrogatory to which your  
25 question relates? Because it doesn't seem to relate at all  
26 to the one that is on the screen here, Staff 10.

27 MR. PATTANI: Okay. The one that is on the screen is  
28 not mine. I think this is from the --

1 MR. MYERS: I think you brought us there at the  
2 beginning, but you may have also mentioned a second one  
3 that we have not seen on the screen. I didn't catch what  
4 that was.

5 MR. PATTANI: Sorry. I have not brought this up.  
6 Anyway, I was referring to IR I-1-10.

7 MR. MYERS: That's what that was. That was Staff 10.

8 MR. PATTANI: Oh, okay. And the other one is the IR  
9 PA-Pattani-3. That is the one that Power Advisory -- which  
10 really asked us to question Hydro One about this issue.

11 MR. MYERS: It doesn't --

12 MR. PATTANI: If you can go a little bit below.

13 MR. MYERS: It doesn't seem to relate to this topic.

14 MR. PATTANI: No. It is PA. the interrogatory  
15 response is PA, Power Advisory, dash, Pattani, dash, 3.

16 MR. MYERS: The second round of interrogatories, the  
17 responses from Power Advisory.

18 MR. PATTANI: Power Advisory, yes.

19 MR. MYERS: I see.

20 MR. VELLONE: Mr. Myers, to the extent that helps, I  
21 have that one in front of me and can confirm that Power  
22 Advisory basically said ask Hydro One. I don't know if you  
23 want to put it up on the screen and confirm for yourself,  
24 but that is what the witnesses answered.

25 MR. VETSI: I do recall that as well. So I think  
26 we're fine to take the undertaking as we described if you  
27 want to give that a number.

28 MR. MYERS: Okay, thank you.

1 MR. SIDLOFSKY: We will make that Undertaking JT1.1.  
2 **UNDERTAKING NO. JT1.1: WITH REFERENCE TO IR I-1-10,**  
3 **HYDRO ONE TO CONFIRM (A) THAT IT PLANS ACCORDING TO**  
4 **ORTAC; (B) FOR INTERNAL TRANSMISSION PLANNING, WHEN**  
5 **HYDRO ONE INVESTS IN ITS OWN INTERNAL LINES, WHETHER**  
6 **THE ABILITY TO EXPORT GUIDES HYDRO ONE'S THINKING, OR,**  
7 **TO PROVIDE A MORE GENERIC, HIGH-LEVEL RESPONSE OF THE**  
8 **DEGREE TO WHICH HYDRO ONE TAKES INTO ACCOUNT INTER-TIE**  
9 **CAPACITY WHEN IT INVESTS IN THE INTERNAL TRANSMISSION**  
10 **SYSTEM.**

11 MR. PATTANI: Thank you very much.

12 MR. VELLONE: Mr. Sidlofsky, this is not typical, but  
13 because we will not have an opportunity to ask questions on  
14 the responses, when considering your response to the second  
15 part of Mr. Pattani's undertaking, can you turn -- if the  
16 answer is different for different categories of assets per  
17 your functionalization in the cost allocation model, so if  
18 it is different for inter-ties or if it's different for  
19 line and transformation connection or if it's different for  
20 network, can you signal that in your response so that --  
21 because I won't have a chance to ask that if you don't  
22 break it up into that category later.

23 MR. SIDLOFSKY: I assume that was a question for the  
24 panel?

25 MR. VETISIS: Again, I think this is something for our  
26 planning team, so we will do our best to, you know, answer  
27 if we can, Mr. Vellone. And if we can't, we will let you  
28 know why.

1 MR. VELLONE: Thank you.

2 MR. PATTANI: Thank you very much. Mr. Sidlofsky, I  
3 am done as far as Hydro One is concerned now.

4 MR. SIDLOFSKY: Thanks, Mr. Pattani. We will move on  
5 to Anwaatin.

6 MR. MCGILLIVRAY: Thanks, Mr. Sidlofsky. Upon further  
7 review of the interrogatory responses, Anwaatin doesn't  
8 have any questions for Hydro One at this stage.

9 MR. SIDLOFSKY: Okay. It looks like we're moving on  
10 to Mr. Vellone for APPrO.

11 MR. VELLONE: And doing incredibly well on our  
12 schedule.

13 MR. SIDLOFSKY: I have no words.

14 [Laughter.]

15 **EXAMINATION BY MR. VELLONE:**

16 MR. VELLONE: I have -- only scheduled five minutes.  
17 I only have one real follow-up for the witness panel and it  
18 relates to the response to APPrO Interrogatory No. 1E, E as  
19 in Edward.

20 While you pull that up, yesterday evening I did  
21 attempt to distribute a compendium to all of the parties  
22 which attempted to pull together some other documents that  
23 I intend to make reference to.

24 I just want to confirm that the person who is  
25 controlling the screen has a copy of that compendium, and  
26 ask Mr. Sidlofsky as to whether we should mark that as an  
27 exhibit. I did file it last night.

28 MR. SIDLOFSKY: We should. We will make that Exhibit

1 KT 1.1.

2 **EXHIBIT NO. KT 1.1: APPRO COMPENDIUM FOR HYDRO ONE**

3 **PANEL 1**

4 MR. VELLONE: And that is the document. So why don't  
5 we pull up the response to APPrO interrogatory 1E first,  
6 because that is really what my question relates to.

7 E as in Edward, if you could scroll down. That is not  
8 in my compendium.

9 Can I ask the person who is controlling the screen to  
10 scroll down?

11 Mr. Vetsis and Mr. Li, do you have copies of this  
12 yourself? I just want to make sure you have it.

13 MR. VETISIS: We have copies, yes.

14 MR. VELLONE: I want to make sure my question is  
15 rooted in the response you provided there.

16 So my question is in respect of this response, and it  
17 really follows on frankly the fairness argument or fairness  
18 topic concept, which is pretty amorphous.

19 And I think, Mr. Vetsis, you would agree there is a  
20 lot of angles to a concept like fairness.

21 I am looking at this response from the concept of  
22 fairness. And my read of the response, if I've got it  
23 right, is simply that from a cost allocation study point of  
24 view, Hydro One's of the view we shouldn't include ICP  
25 revenues paid by exporters in the study because the IESO  
26 doesn't remit ICP revenues to Hydro One, and so you didn't  
27 include it in your cost allocation study. Did I -- that is  
28 kind of what you're saying here? It's not a revenue offset

1 because we didn't get the cash.

2 MR. VETSIS: I think, Mr. Vellone, I think when we  
3 talk about -- I think it is important to give you a little  
4 bit of context on costs.

5 When we talk about them at Hydro One, we're talking  
6 about transmission costs as the costs to build, maintain,  
7 operate the transmission system. And, you know, we're  
8 talking about our assets basically.

9 And the ICP -- the ETS differs from the ICP. The ETS  
10 clearly is remitted to us and offsets the recovery of our  
11 specific costs. The ICP does not. And I think that is the  
12 key distinction that we wanted to share and in our view,  
13 the way the settlement works for the ICP, it doesn't  
14 contribute to the recovery of our revenue requirement.

15 Therefore, it doesn't offset Hydro One's costs.

16 MR. VELLONE: Okay. That is the way I thought I  
17 understood the response.

18 So I would ask that the person controlling the screen  
19 pull up the APPrO compendium and just go to the first page  
20 there. Sorry, can you pull up the APPrO compendium that I  
21 circulated earlier this morning?

22 Can I ask the person controlling -- I know I saw it  
23 before. You have it on your computer. Can you pull up the  
24 APPrO compendium that was circulated earlier today?

25 MS. AUBIN: I can't share it. There may be a  
26 technical issue, so I will just switch to "share my  
27 screen".

28 Sorry. This will just take a second. If you could

1 give us a few minutes, I just have to get our technical  
2 person, as the button for me to share my screen doesn't  
3 appear to be working. It won't be long.

4 MR. VELLONE: I will attempt my questions without the  
5 benefit of the compendium and I will just speak through it.

6 Mr. Vetsis and Mr. Li, do you have copies of that  
7 material so if I speak to it, you know what I am talking  
8 about?

9 MR. VETISIS: We do, Mr. Vellone.

10 MR. VELLONE: Let's do that, because for the purposes  
11 of the transcript, it shouldn't matter.

12 So the first page of the APPrO compendium is really  
13 just an extract from Hydro One's transmission licence, and  
14 I have put a side bar way down at the bottom and I am just  
15 trying to link it here. Because while Hydro One owns and  
16 maintains your transmission system, you have really signed  
17 an operating agreement with the IESO for the purposes of  
18 operating your transmission system. Is that right?

19 MR. VETISIS: It is not entirely right, Mr. Vellone.

20 I think we -- what we have signed an agreement with  
21 here is for -- it provides for the IESO to direct the  
22 operation. However, Hydro One actually operates the  
23 system. I think one of my colleagues -- as one of my  
24 colleagues in the planning department likes to put it, we  
25 flick the switch.

26 MR. VELLONE: That's fair. Fair. So the operating  
27 agreement is really around the ability of the IESO to  
28 direct the operations of the transmission system, and the

1 IESO themselves have, in addition to playing that role --  
2 flip ahead to the next page in the compendium. It is just  
3 an extract of the market rules and it is really the  
4 provisions of the market rules that relate to the IESO's  
5 role as the billing and settlement agent for the  
6 transmission-related charges on consumers' bills.

7 So am I right, although you have a revenue  
8 requirement, the billing function largely happens via the  
9 IESO, frankly pursuant to these provisions of the market  
10 rules. They then eventually remit back to you, payments to  
11 cover your revenue requirement. Is that right?

12 MR. VETISIS: Correct. And those are the payments in  
13 relation to the UTRs and the ETS rate.

14 MR. VELLONE: Great. Then flipping ahead to the third  
15 page of the APPrO compendium, this is an extract of chapter  
16 8 of the market rules and it really speaks to the  
17 mechanisms the IESO uses with regards to its transmission  
18 rates clearing account.

19 The first highlight I noted there is that the IESO  
20 books what they're calling the congestion rents here, what  
21 we're calling congestion payments, congestion revenues.

22 They book those payments to the transmission rates'  
23 clearing account and then, further down on the same page --  
24 and perhaps we could zoom in on that one because I think  
25 this is the most relevant portion of my questioning -- is  
26 that from time to time, the IESO board may take the funds  
27 that are booked to the transmission rates' clearing account  
28 and use them to offset the transmission services charges.



1           So it is all happening, frankly, in an IESO account,  
2 but it is happening with respect to this line item of the  
3 bill. It is happening with respect to the transmission  
4 service charges line item of the bill. It is just  
5 happening -- the netting is happening at the IESO level.  
6 It is not being remitted back to Hydro One. Is that your  
7 understanding as well?

8           MR. VETSIS: Not quite. I think my understanding at a  
9 high level is that the term "transmission service charges",  
10 Mr. Vellone, is very broad. The IESO has many different  
11 charges that it provides to market participants. I think  
12 included in that long list of charges are specific items  
13 carved out for our UTRs, ETS, et cetera.

14           The TR line that you are talking about is a separate  
15 item on its own on the list of charges. I think, you know  
16 -- I think one way of thinking about it -- and we have two  
17 roles, right? As a transmitter, right, we receive from the  
18 IESO the funds from the UTRs, ETS. We also have a role as  
19 a distributor, right? Market participants receive these  
20 amounts.

21           When we as a distributor settle these costs on behalf  
22 of our customers, the TR charge item is actually booked  
23 into account 1580, which offsets the IESO's wholesale  
24 market service rate.

25           So when we're doing settlement, the way the OEB views  
26 it is that this is a charge that is actually offsetting the  
27 IESO's costs, it is not offsetting Hydro One's transmission  
28 rates.

1 MR. VELLONE: That's how the current accounting works?

2 MR. VETSIS: Yes.

3 MR. VELLONE: Okay. If that accounting were to  
4 change, such that the IESO made a choice to remit  
5 congestion rents directly to Hydro One, as opposed to  
6 settling it this way, would that change your views on how  
7 you treat it from a cost allocation point of view?

8 MR. VETSIS: Mr. Vellone, I can't speculate on  
9 potential rule changes. But I will say at a fundamental  
10 level what differs the ETS from the ICP or the, you know,  
11 transmission rights, ETS is very clearly a component of the  
12 -- you know, it is a component of our revenue requirement.  
13 It is clearly linked to our costs.

14 A lot of what we're talking about in ICP is  
15 differences in market costs related to the cost of  
16 generation itself, and I think -- so perhaps regardless of  
17 the -- you know, any future changes to settlement, there  
18 does seem to be quite a link with the ICP between the costs  
19 of generation rather than that of poles and wires, and the  
20 ETS is about poles and wires.

21 MR. VELLONE: But the -- so the ICP, in particular, is  
22 really around managing congestion on inter-ties. Would you  
23 agree with that? It is a market mechanism designed to help  
24 manage congestion on inter-ties. I agree with you. It is  
25 not a cost-of-service type of approach.

26 MR. VETSIS: True. But it also links, to me, to the  
27 IESO's broader role of balancing supply and demand of  
28 energy produced.

1 MR. VELLONE: So you would -- so if there was a  
2 potential change to the settlement mechanisms used by the  
3 IESO specifically for the congestion-related rents, you  
4 would want to consider what your view is, is it is kind of  
5 multiple purposes of that ICP market mechanism in your cost  
6 allocation model? That is why you are reluctant to give me  
7 a straight yes? Is that what is happening here?

8 MR. VETSIS: I think I would go back to the initial  
9 statement, which is we are talking about Hydro One's -- the  
10 cost in Hydro One's revenue requirement, and the cost  
11 allocation exercise that's been done here is relative to  
12 the costs of Hydro One's revenue requirement.

13 MR. VELLONE: All right. But you are -- as part of  
14 your cost allocation study you are proposing to allocate  
15 inter-tie costs as between domestic consumers and exporters  
16 on the 12CP basis, I think is the allocator you chose on,  
17 right?

18 MR. VETSIS: For the use of Hydro One's assets.

19 MR. VELLONE: The inter-ties themselves? Yes.

20 Okay. I only scheduled five minutes, and I think we  
21 used the whole thing up trying to get the compendium to  
22 work, so --

23 MR. PATTANI: Excuse me. I would like to seek some  
24 clarification on the basis of this compendium and APPRO's  
25 proposal just now, please. Mr. Sidlofsky, can I take a  
26 minute or two, please?

27 MR. SIDLOFSKY: Yes. For sure.

28 **CONTINUED EXAMINATION BY MR. PATTANI:**

1 MR. PATTANI: Okay. So I am Naren Pattani. If Hydro  
2 One is going to look into these things and so on, the two  
3 issues that need to be addressed, I believe, one is that  
4 the ETF and the transmission rates are regulated by the  
5 OEB.

6 Hydro One is under regulation by the OEB, so anything  
7 to do with transmission is always regulated by OEB. ICP is  
8 entirely an IESO matter. If at all ICP were to be  
9 considered as part of the payment of transmission --

10 MR. VELLONE: Mr. Sidlofsky, I am going to interject  
11 briefly. I am not sure this is the right forum to engage  
12 in arguments.

13 MR. PATTANI: But you did it before with my panel,  
14 with my question, Mr. Vellone. You did enter into argument  
15 about different types of transmission.

16 MR. VELLONE: Mr. Sidlofsky --

17 MR. SIDLOFSKY: Sorry, Mr. Pattani. I think that what  
18 Mr. Vellone was doing was asking a follow-up question, or  
19 asking the panel to deal with a follow-up question in the  
20 context of the undertaking that you were asking for.

21 MR. PATTANI: All right.

22 MR. SIDLOFSKY: I am not an adjudicator here, but I  
23 didn't see Mr. Vellone as making an argument at that point.  
24 He simply wanted some more information from the panel. If  
25 there is more information that you want from the panel, as  
26 a follow-up question to one of the questions that Mr.  
27 Vellone asked, I am happy to have you ask that, but --

28 MR. PATTANI: Okay.

1 MR. SIDLOFSKY: But there will be a time for  
2 submissions on this, and parties won't be making  
3 submissions here in the technical conference.

4 MR. PATTANI: Okay. Can I ask a question --

5 MR. SIDLOFSKY: Do you have a follow-up question, Mr.  
6 Pattani?

7 MR. PATTANI: Yes. I would like to ask a question of  
8 the panel. If ICP were to be included in your -- as  
9 required for your transmission revenue requirement, would  
10 you want ICP to be included in the regulatory process with  
11 the OEB as well? This is for Hydro One people.

12 MR. VETSIS: I don't believe that we have the  
13 jurisdiction or authority to administer the ICP. It is a  
14 market mechanism which is within the IESO's jurisdiction.

15 I am not sure what I can say beyond that, Mr. Pattani.  
16 I mean, if Hydro One had an obligation, I assume we would  
17 have to figure out the regulatory mechanisms if -- if that  
18 were to change, but --

19 MR. PATTANI: Thank you. Thanks. Sorry about that.

20 MR. SIDLOFSKY: No, that's okay. Thanks, Mr. Pattani.  
21 We will move on to Schools. Mr. Rubenstein.

22 **EXAMINATION BY MR. RUBENSTEIN:**

23 MR. RUBENSTEIN: Good morning, panel. Can you see me?

24 MR. VETSIS: Yes, we can.

25 MR. RUBENSTEIN: I just have a couple of questions.  
26 Can you go to Staff 5. So in part A of this question you  
27 were -- and it references a component of your submission,  
28 and you say in -- you were asked in part A:

1           "Please confirm that Hydro One expects that any  
2           decrease in the ETS will be recovered from  
3           Ontario customers through the UTR."

4           And the response is "confirmed".

5           I just want to understand this. And the context is  
6           your statement that you are neutral, the company is neutral  
7           towards what the ETS rate is.

8           I just want to understand, is this because under your  
9           current mechanism there is a variance account? So if the  
10          ETS rate was set to zero or there was no exports, for  
11          example, there would be a variance -- there would be a  
12          debit in the account that would be collected from domestic  
13          customers? Or is it that in your view the OEB, when  
14          setting the Hydro One's revenue requirement, should not  
15          consider ETS revenue offsets in the purpose of determining  
16          the revenue requirement, or the base revenue requirement?

17          MR. VETSI: I think, Mr. Rubenstein, ultimately --  
18          just at a high level, this comes down to the nature of the  
19          way the rate-setting process works.

20          So the OEB approves for us a total revenue  
21          requirement. We then -- I'm going to leave out some of the  
22          nuances because those are for JRAP. But basically from  
23          that total revenue requirement that gets approved, we  
24          subtract external revenues and revenue offsets.

25          ETS is one of those. Right. There is a -- then what  
26          is left is what we call the rates revenue requirement,  
27          which is what is used to calculate the UTRs.

28          So if we set the ETS rate to zero, what we do is

1 reduce those revenue offsets. So when we take total  
2 revenue requirement, we subtract less from that, and what  
3 is left is a rates revenue requirement that then goes into  
4 the UTRs. So it is not the deferral account. It is just  
5 that by reducing the ETS, you reduce the offsets to the  
6 total revenue requirement.

7 MR. RUBENSTEIN: But that's a function of how it's  
8 been done in the past, and similarly how you are proposing  
9 it in your JRAP application. I am trying to understand the  
10 difference between a structural component verses the view  
11 that in setting the Hydro One revenue requirement, in your  
12 view the Board should not consider the revenue offsets in  
13 making its determination.

14 And that if it is zero or a very high number, that is  
15 not relevant to the Board in determining the revenue  
16 requirement. I am just trying to understand which one of  
17 the two.

18 MR. VETSIK: I think what we said earlier is -- I  
19 mean, certainly the impact to customers who pays what is  
20 relevant to the Board, right.

21 But I think, you know, the total revenue requirement  
22 is a reflection of the total costs as a transmitter. It is  
23 the costs of our assets that are in-service and utilized,  
24 et cetera, all of that stuff.

25 And that doesn't change as an outcome of this  
26 proceeding. What this would determine is the degree to  
27 which our total costs are offset prior to determining the  
28 UTRs.

1 MR. RUBENSTEIN: All right. I will leave it there.  
2 Can we go to SEC 12.

3 So we had asked you in this interrogatory about  
4 options for potentially adjusting -- the mechanistic  
5 adjustments to the ETS rate during the custom IR period  
6 between 2024 and 2027.

7 And there is a joint response from Hydro One and  
8 Elenchus and the response says:

9 "For the purposes much simplicity and stability  
10 of rates, Hydro One and Elenchus do not propose  
11 annual mechanistic adjustments to the ETS rate.  
12 This approach is consistent with how the ETS rate  
13 has been treated historically in past multi-year  
14 Hydro One applications and is analogous to the  
15 treatment of many specific service charges on  
16 electricity distribution tariffs where the  
17 charges are established at the time of rebasing  
18 and not adjusted throughout the incentive rate-  
19 setting term."

20 Do you see that?

21 MR. VETISIS: Yes, I do.

22 MR. RUBENSTEIN: I will ask you for your perspective  
23 on this joint response here. Do I take it that Hydro One  
24 looks at the ETS rate more similar to how it looks at  
25 various specific service charges as opposed to how it  
26 considers, for example, its domestic customers?

27 MR. VETISIS: Sorry, could you say that again, Mr.  
28 Rubenstein?



1 MR. RUBENSTEIN: Yes. No problem. Just so you know,  
2 I am focussing on the component where you are comparing it  
3 to specific service charges.

4 Can I take from that that in Hydro One's view,  
5 exporters -- thus the ETS rate that they would pay -- is  
6 more akin to a specific service charge as opposed to  
7 transmission rates through UTRs that domestic customers  
8 pay?

9 MR. VETSIS: Can we grab a quick breakout room?

10 [Witness panel confers in breakout room.]

11 MR. VETSIS: I think, Mr. Rubenstein, I think that  
12 reference in terms of analogous is more to the fact that  
13 the ETS -- that specific service charges effectively form  
14 an offset to our revenue requirement and are recovered sort  
15 of as separately in that manner.

16 So I think that is what we mean more analogous, in the  
17 sense that it, you know, the ETS itself is a revenue offset  
18 and the way charges to revenue offsets are treated in the  
19 distribution system, it is analogous. They're kind of kept  
20 constant throughout the term.

21 MR. RUBENSTEIN: Okay. So the beginning of the answer  
22 also says:

23 "For the purposes of simplicity and stability of  
24 rates, Hydro One and Elenchus do not propose  
25 annual mechanistic adjustments to the ETS rate."

26 Do I take it then the proposal to update the  
27 transmission revenue requirement and the flow-through to  
28 rates for 2024-2027, as proposed in your joint rate

1 application, is not simplistic and does not provide for  
2 stable rates?

3 MR. VETSIS: I don't know that I would agree with that  
4 statement.

5 MR. RUBENSTEIN: Okay. Well, then can you help me  
6 understand your response, then?

7 MR. VETSIS: I think it just -- you know, for the  
8 notion of simplicity, certainly in the context of annual  
9 updates and the number of things that change year over  
10 year, I think we have heard from the OEB in its handbook a  
11 desire to minimize the number of updates each year in  
12 applications.

13 So I mean it simplifies year over year applications by  
14 reducing the number of requests.

15 From a stability perspective, I think in this  
16 proceeding you have seen a lot of evidence, Mr. Rubenstein,  
17 about the broader market considerations and I think, you  
18 know, stability of the rate may be something -- that more  
19 predictable costs in that manner may be something that is  
20 valued from that perspective.

21 MR. RUBENSTEIN: Is it your understanding of the  
22 Elenchus model from their evidence that it uses the 2023  
23 cost inputs, Hydro One's cost inputs in 2023?

24 MR. LI: It is. It's the proposed 2023 revenue  
25 requirement for transmission, yes.

26 MR. RUBENSTEIN: Am I correct in the joint rate  
27 application that transmission revenue requirement increases  
28 each year between 2024-2027?

1 MR. LI: It changes, yes.

2 MR. RUBENSTEIN: And it increases, correct?

3 MR. LI: Yes.

4 MR. RUBENSTEIN: And so if the ETS rate, if the cost  
5 inputs to the ETS rate remain at the 2023 revenue  
6 requirement and all other costs increase, won't there be a  
7 cross subsidy between -- from domestic customers to  
8 exporters?

9 MR. LI: You want to break out? Can we take a  
10 breakout room?

11 MR. RUBENSTEIN: Sure.

12 [Witness panel confers in breakout room.]

13 MR. RUBENSTEIN: We cannot hear you, Stephen.

14 MR. VETSIS: Thanks. Sorry about that.

15 So ultimately the ETS rate, you know, proposals in  
16 this application set out the cost-based approaches stem  
17 from a cost allocation exercise.

18 To the extent, like, without running that annually we  
19 can't know for certain the degree of cross-subsidization  
20 that would occur. As you know, in rate-setting terms we  
21 don't rerun cost allocation every year. It is just done on  
22 the rebasing year.

23 What I can say is that certainly by keeping the ETS  
24 rate flat throughout the rate-setting term, what that would  
25 mean is that the incremental changes to the revenue  
26 requirement would be borne by -- primarily borne by the  
27 domestic ratepayer.

28 MR. RUBENSTEIN: So if the OEB were to say, we would

1 like the ETS rate adjusted each year to reflect the cost  
2 similarly that the revenue requirement and the rates that  
3 domestic customers will have to pay, what is a way that  
4 Hydro One believes would be a simplistic and mechanistic  
5 adjustment that could be done in years 2024 to 2027 at the  
6 same time based on its proposal in the JRAP application  
7 that it would do with respect to the transmission revenue  
8 requirement?

9 I mean, if you would like I have no problem if you  
10 take this away by way of undertaking to consider it. What  
11 would be Hydro One's view of the best way to do that?

12 MR. VETSIS: I mean, I would say, Mr. Rubenstein,  
13 we're talking about -- we're talking about a value that is  
14 roughly 37 million dollars currently estimated on a total  
15 revenue requirement of about 1.8 billion.

16 I think, I mean, I think the OEB would want to  
17 balance, you know, regulatory efficiency with materiality,  
18 and when you are talking about percentage points on  
19 37 million you are in the 100,000 ranges.

20 And so ultimately the degree of cross-subsidization, I  
21 don't know that the types of manual adjustments that you  
22 are talking about are -- you know, the regulatory cost  
23 associated with it would warrant the outcome from a rate  
24 perspective, because it is unlikely to make a material  
25 difference.

26 MR. RUBENSTEIN: I understand your position in the  
27 interrogatory is we don't think -- and I take from your  
28 comment your view is we don't think we should do it. I

1 would just like to understand, if the Board said, similar  
2 to your adjustment -- you're making adjustments to domestic  
3 customers over the year -- how -- and they asked Hydro One,  
4 what is the simplistic and a mechanistic way to then --  
5 that we can adjust the export transmission rate, how should  
6 they -- how should they do it? What is the way to do it?  
7 That is the information I am asking Hydro One for.

8 And again, if you would like to think about it, but I  
9 would like an actual proposal, not just a -- essentially  
10 the comments you just provided to me.

11 MR. VETSIS: You know what, Mr. Rubenstein? Rather  
12 than improvise regulatory rate-setting on the fly, let's  
13 take an undertaking there.

14 MR. RUBENSTEIN: Sounds good.

15 MR. SIDLOFSKY: We will make that JT1.2.

16 **UNDERTAKING NO. JT1.2: TO TAKE BACK AND CONSIDER**  
17 **WHETHER THERE COULD BE A SIMPLISTIC, MECHANISTIC WAY**  
18 **OF ADJUSTING THE ETS RATE DURING A RATE-SETTING TERM,**  
19 **CONSISTENT WITH THE STRUCTURE THAT HAS BEEN PROPOSED.**

20 MR. SIDLOFSKY: Could you just for the benefit of the  
21 reporter indicate what you are undertaking to do, Mr.  
22 Vetsis.

23 MR. VETSIS: I think to provide -- to take back and  
24 consider whether there could be a simplistic, mechanistic  
25 way of adjusting the ETS rate during a rate-setting term.  
26 Obviously, Mr. Rubenstein, there are huge caveats  
27 associated with this, given our custom IR hasn't even been  
28 approved, but...

1 MR. RUBENSTEIN: Well, let's work on the basis that  
2 the structure is approved, okay?

3 MR. VETSIS: Consistent with the structure that has  
4 been proposed, yes.

5 MR. SIDLOFSKY: Thanks for that. So as I said, that  
6 will be JT1.2.

7 Mr. Rubenstein, was that it for you? Or...

8 MR. RUBENSTEIN: I just have one more question.

9 MR. SIDLOFSKY: I am not shutting you down. I am not  
10 shutting you down. I am just asking.

11 MR. RUBENSTEIN: I just have one more question.

12 MR. SIDLOFSKY: Sure.

13 MR. RUBENSTEIN: And it relates to the question that  
14 Hydro One posed to Power Advisory in Power Advisory-HONI-2,  
15 and really follows up the discussion that was had with Mr.  
16 Vellone.

17 In Hydro One interrogatory 2 to Power Advisory, Hydro  
18 One asked Power Advisory to:

19 "Please explain in detail how reductions are  
20 increased and the TRC disbursement payments will  
21 impact the overall transmission network service  
22 requirement that is paid to Ontario and  
23 transmission customers through uniform  
24 transmission rates. Please provide a step-by-  
25 step illustrative example."

26 There is a -- and there is a reference to another  
27 interrogatory, as well as some comments from Power  
28 Advisory, where they essentially said we would like -- if

1 Hydro One can show us the settlement, we would like to see  
2 that too.

3 So I would like to ask Hydro One by way of undertaking  
4 -- and maybe is in conjunction with the IESO -- that they  
5 provide -- they provide a step-by-step explanation of how  
6 the disbursement of the TRCA flows into customers' bills,  
7 because obviously there's some confusion amongst a number  
8 of the parties by the question and some of the discussion  
9 with APPrO, and it would be helpful if there was some  
10 explanation between the two entities to help explain how  
11 this shows up on a customer's bill at the end -- on an end-  
12 use customer's bill at the end of the day. So that would  
13 be the first part.

14 And then the second part would be to explain how this  
15 compares to the ETS rate in relation to how those amounts  
16 would thus be allocated, right? So ETS rate is put into  
17 the UTR and depending on how that ends up in the end-use  
18 customer's bills.

19 But if the TRCA is in disbursements through the IESO  
20 or a credit to some other amount and that ends up flowing  
21 through some other way, it would be helpful to understand  
22 the difference.

23 I am wondering if Hydro One could work with the IESO  
24 to undertake to provide that information.

25 MR. MYERS: Mr. Rubenstein, perhaps it is a bit  
26 unusual to ask for an undertaking without having posed the  
27 question initially to the witnesses. I am wondering if you  
28 want to try asking them if they're able to answer your

1 questions, and if that is something that the witnesses feel  
2 they need to take away as an undertaking, then they can  
3 choose to accept that.

4 MR. RUBENSTEIN: Well, are you able to answer the  
5 question that I am asking you to do by way of undertaking?

6 MR. VETSIS: Mr. Rubenstein, obviously we're not the  
7 IESO and don't control their internal processes. I mean, I  
8 think we can help trace for you where certain charge codes  
9 from the IESO, how they flow through to a distribution  
10 customer's bill. I think we could do that for you.

11 MR. RUBENSTEIN: Well, the reason I ask for you to  
12 work with the IESO is because there may be a  
13 misunderstanding or disagreement about which code or how it  
14 actually works on their end to get to you. That is why I  
15 propose that you could work together to answer this  
16 question for the parties in this proceeding. I think that  
17 would be useful for everybody.

18 MR. VETSIS: Again, I can't speak on their behalf.  
19 Certainly, like, if there is an undertaking here I can  
20 certainly -- we can certainly take away to show you once  
21 the money has been remitted to us as a market participant  
22 how we flow that through and then, you know, pending the  
23 outcome of asking the similar question to the IESO panel...

24 MR. RUBENSTEIN: Well, that's why there's -- I can't  
25 ask two separate questions, because there is -- kind of  
26 it's -- I mean the IESO is -- I saw Mr. Duffy here and I  
27 mean it's a commitment to work on a best-efforts basis  
28 obviously. I would hope that they would be -- as a public



1 agency, trying to get to a right answer would be helpful in  
2 this regard.

3 MR. VETSIS: Like I said, we will take the  
4 undertaking. We can provide the part that we know and we  
5 will ask the IESO to contribute and whatever they can, you  
6 know, that's what you will get.

7 MR. RUBENSTEIN: That's fine. Thank you.

8 MR. SIDLOFSKY: We will make that undertaking JT1.3,  
9 two parts to that. My understanding of it is part A is a  
10 step-by-step explanation of how the disbursement of the  
11 TRCA flows into customer bills.

12 The second part of that would be to explain how this  
13 compares to the treatment of the ETS rate and how it flows  
14 through to customer bills.

15 MR. RUBENSTEIN: Well, the ETS rate -- it is more  
16 about the allocation of the ETS costs and how that compares  
17 to the TRCA balances -- as just sort of a background to  
18 those, in order to answer this question.

19 There is evidence about the TRCA balance, and how much  
20 goes to domestic customers. But the way that flows through  
21 will show up differently. A million dollars of TRCA versus  
22 a million dollars of ETS revenue may show up on a  
23 customer's bill differently, just the way those are  
24 allocated and to understand the difference between those  
25 two. That is what that aspect is trying to get at, the  
26 witnesses understand that.

27 MR. SIDLOFSKY: Okay. And to work make best efforts  
28 to work with the IESO to provide those answers.

1 MR. RUBENSTEIN: Yes. I was hoping they would pop up  
2 and agree to do it, but I think there was some silence  
3 there. So I will take Stephen's view that he will try his  
4 best efforts to cajole them into answering the question.

5 MR. SIDLOFSKY: Thank you.

6 **UNDERTAKING NO. JT1.3: HYDRO ONE TO WORK WITH IESO**  
7 **(A) TO PROVIDE A STEP-BY-STEP EXPLANATION OF HOW THE**  
8 **DISBURSEMENT OF THE TRCA FLOWS INTO CUSTOMER BILLS;**  
9 **(B) TO EXPLAIN HOW THIS COMPARES TO THE TREATMENT OF**  
10 **THE ETS RATE AND HOW IT FLOWS THROUGH TO CUSTOMER**  
11 **BILLS; TO EXPLAIN THE DIFFERENCE AND ALLOCATION**  
12 **BETWEEN THE TRCA AND THE ETS; (C) TO RESPOND USING**  
13 **LAYMAN'S LANGUAGE, AS OPPOSED TO THE LANGUAGE OF THE**  
14 **MARKET RULES; (D) TO EXPLAIN THE WHY OF THIS**  
15 **DISBURSEMENT**

16 MR. HARPER: Bill Harper. Can I follow up briefly on  
17 that?

18 MR. SIDLOFSKY: Sure.

19 MR. HARPER: I had a very similar question. I guess  
20 my only request would be to Mr. Vetsis and to the IESO, to  
21 the extent they're helping with that, whether this is put  
22 in layman's language as opposed to the language of the  
23 market rules, because I think that also facilitate a better  
24 understanding of the process, if that could be done.

25 That is the only thing I would ask in conjunction with  
26 this.

27 MR. VELLONE: While Bill is adding on, I will add on a  
28 little bit as well. I think Mr. Rubenstein asked the how.

1 I think it would be helpful to the extent -- probably less  
2 Hydro One than IESO, to be honest -- but if you could speak  
3 to the "why" it's done that way, I think it would be  
4 helpful for the panel working through this.

5 MR. RUBENSTEIN: With that, those are my questions.  
6 Thank you very much, panel.

7 MR. SIDLOFSKY: And sorry, I will just ask the panel  
8 just to make sure, and it is more for the sake of clarity  
9 than anything else. Are you prepared to include the  
10 explanation of "why" in those two parts of the undertaking?

11 MR. VETSIS: I mean, we've provided our answer there.  
12 That is part of the cajoling with the IESO. Like, you  
13 know, it's not with us. It is not our accountability. So  
14 again we will ask them to provide their response, but  
15 ultimately I think that will be something that comes from  
16 the IESO.

17 MR. SIDLOFSKY: Okay. Thank you for that. We will  
18 move on to Board Staff. Sorry, Mr. Rubenstein, you are  
19 finished, right?

20 MR. RUBENSTEIN: I am. Thank you.

21 MR. SIDLOFSKY: Okay, thank you. We will move on to  
22 Mr. Pietrewicz for Board Staff.

23 MR. PIETREWICZ: Good afternoon or good morning  
24 everyone, this is Andrew Pietrewicz with OEB staff. I will  
25 be asking the questions on behalf of OEB staff. We have no  
26 questions for this panel. Thank you.

27 MR. SIDLOFSKY: Thank you. Dr. Higgin, I believe you  
28 are online with us now. Are you prepared to go ahead?

1 Because you are the last questioner for panel 1.

2 DR. HIGGIN: Yes. I am having a little trouble with  
3 my video, but you can hear me? I can ask the questions.

4 MR. SIDLOFSKY: I know I can hear you.

5 MR. LI: We can hear you -- or I can hear you.

6 **EXAMINATION BY DR. HIGGIN:**

7 DR. HIGGIN: Okay. Thank you. So when I was  
8 preparing my questions for the Elenchus, I started looking  
9 at the numbers.

10 Then I found that I was having difficulty with some of  
11 the numbers, and that is what I am trying to do now, is to  
12 clarify and confirm some of the numbers, and these come  
13 from Hydro One's application, that is the EB-2021-110  
14 application.

15 So the first one is to look at the revenue requirement  
16 work form, and I would like to look at this at page 3 to  
17 start with.

18 MR. MYERS: Sorry, Mr. Higgin, this is from the record  
19 in Hydro One's rate application which is not evidence in  
20 this proceeding. Is there a reason that we're looking at  
21 it?

22 DR. HIGGIN: Because the numbers that are used to do  
23 the cost allocation, okay, come from here.

24 MR. MYERS: Is this a clarification of any  
25 interrogatory response that is on the record in this  
26 proceeding?

27 DR. HIGGIN: No. But this flows into the ETS cost  
28 allocation, because the numbers come from Hydro One, that's

1 why. I am just trying to get the numbers to be correct.  
2 That's all, nothing else.

3 MR. MYERS: Well, I will let you ask the question and  
4 we will see if the witnesses choose to answer it. But the  
5 purpose of today is to clarify the responses to  
6 interrogatories in this proceeding.

7 DR. HIGGIN: Right. And I am going to go there in a  
8 minute.

9 MR. MYERS: Fine.

10 DR. HIGGIN: First of all, can you confirm from this  
11 form what the rate base is calculated to be? Can you tell  
12 me what the rate base is?

13 MR. VETSIS: I honestly, I can't -- I can't see the  
14 number on the screen right now, Mr. Higgin.

15 DR. HIGGIN: Well, we will carry forward. And then  
16 just let's look at page 9. Look at the revenue  
17 requirement.

18 MR. VETSIS: Can you help me understand why the  
19 overall rate base of Hydro One Networks Inc., why you are  
20 trying to reconcile that to the numbers in this  
21 application?

22 DR. HIGGIN: Because that's where Elenchus starts  
23 from, the 2023 rate base, when they calculate the ETS cost  
24 allocation. That's why.

25 MR. VETSIS: I should note, Dr. Higgin, that -- so  
26 what you are looking at here is Hydro One's total revenue  
27 requirement.

28 So it would also include costs that are related to the

1 line and transformation rate pools as well.

2 And when Elenchus does their work, when they're  
3 looking at the shared network costs, they don't include  
4 those rate pools. So you won't be able to reconcile the  
5 total costs that are in this revenue requirement with the  
6 work that's done by Elenchus, because Elenchus is working  
7 with a subset of Hydro One's overall total costs.

8 DR. HIGGIN: I will show you a difference then, if you  
9 want to know.

10 Can you now go to Exhibit O, tab 1, schedule 2 in EB-  
11 2021-0110, page 37, please. Okay, nearly there. Right.

12 So you do see there is a certain rate base number at  
13 the top for 2023, correct, 14,611.5?

14 MR. VETSI: Yes.

15 DR. HIGGIN: That number is different from the work  
16 form. Believe me. It is. Now, that, what I would have  
17 thought would be what Elenchus would use. It is not. I  
18 can show you Elenchus's number. It is 14,592.7.

19 I am just trying to understand why there is a  
20 difference. Do you want me to pull up the Elenchus,  
21 because I was going to ask you to Elenchus, where they got  
22 it from. So just believe me that the rate -- the rate base  
23 numbers and those used by Elenchus differ. Not much, but  
24 differ.

25 So let's pull up, if you can find it, HONI 05-024-004.

26 MR. VETSI: Dr. Higgin, I believe the Elenchus  
27 evidence would have been completed with -- consistent with  
28 our -- Hydro One's pre-filed evidence at the beginning of

1 the JRAP proceeding. What you are bringing up here is the  
2 inflation update.

3 DR. HIGGIN: That was the question I was going to --  
4 you just answered my next question. Does it include the  
5 inflation update or not?

6 So let's look -- I am now looking for HONI -- it is a  
7 spreadsheet, HONI 05-24. That was from our deck, 004.

8 MS. AUBIN: Sorry, Dr. Higgin, can you clarify --  
9 specify on what proceeding that reference is from?

10 DR. HIGGIN: It is from this proceeding.

11 MS. AUBIN: From this proceeding? Okay. And if you  
12 can repeat the reference, please.

13 DR. HIGGIN: Yes, it is this proceeding. As I --

14 MS. AUBIN: Is it an interrogatory or is it evidence?

15 DR. HIGGIN: No, it is a spreadsheet. HONI-05-24-04.  
16 It is titled "ETS cost allocation".

17 MS. AUBIN: So that is in the interrogatories. If you  
18 can pull back up the main interrogatories file. If sounds  
19 like it is attachment 2. 05-24.

20 DR. HIGGIN: 05 -- right. So as it shows here, it is  
21 in an Excel spreadsheet. So what I am trying to do here is  
22 just to make sure that the numbers that are being used for  
23 the cost allocation reflect Hydro One's updated evidence  
24 for the ETS cost allocation model. I am trying to ensure  
25 that. If not, I will be asking them to update it, to  
26 include Hydro One's updated evidence. There it is.

27 Now, if we look at the top there, you will see the  
28 rate base. No. At the very top. No.

1 MS. AUBIN: Dr. Higgin, can you specify the tab? Oh,  
2 is this it here? Okay, excellent. This is the right tab.  
3 At the top of this tab, you're saying?

4 DR. HIGGIN: It is a sheet 01.

5 MS. AUBIN: Sheet 01. So in the summary tab? Oh,  
6 here. Okay, I see. Yeah. Okay.

7 DR. HIGGIN: Do you see there a different rate base,  
8 correct?

9 So my question is, did you communicate to Elenchus the  
10 updated information regarding the rate base? And if so,  
11 what would be that number if you did communicate the  
12 update? My number is 14,611.5.

13 MR. VETISIS: Dr. Higgin, could we bring up SEC  
14 Interrogatory No. 10, please. So that is Exhibit I, tab 8,  
15 schedule 10.

16 DR. HIGGIN: As you can see, there are small  
17 differences.

18 MR. VETISIS: Could you scroll down a little bit just  
19 to the response to part B.

20 So I think, Dr. Higgin, I think what you are referring  
21 to in the evidence is, I believe the inflationary update  
22 did include an update to our total costs in the JRAP.  
23 However, as you know, there was a proposal to defer the  
24 impacts of any of the recovery of any incremental costs  
25 over the 2023-2027 rate period.

26 So as we note here in this response to SEC, given that  
27 rate recovery of any change in costs is not being proposed,  
28 there are no updates to the cost information that is being



1 utilized. We don't expect a material impact to the  
2 outcome.

3 So that is why there hasn't been an update to the  
4 evidence in this proceeding.

5 DR. HIGGIN: Okay. Now, what I would like to do,  
6 then, is just come to talk a bit about the deferral  
7 amounts. Okay? I will come to that. I am just trying to  
8 find an interrogatory that I -- an interrogatory -- sorry  
9 about that. An interrogatory response that I asked for  
10 about the revenue requirement that is -- one of ours. I am  
11 just going to try to find it now. I thought I had it here.  
12 I've got it and printed out.

13 So you provided a table showing the transmission  
14 deferred revenue requirement from the inflation update, and  
15 I'm sorry I'm not right able to find that reference, but it  
16 was in my original references that I sent to Hydro One  
17 early on. I am just going to find it now. Excuse me.  
18 It's taking a while to find it.

19 Sorry about this. It is just -- yes. The reference  
20 coming up now is -- yes. It is Energy Probe 85-01-Tx. It  
21 is a spreadsheet. Energy Probe 085-01-Tx.

22 MS. AUBIN: Dr. Higgin this is one of your IRs from  
23 the JRAP?

24 DR. HIGGIN: Yes. It is a proceeding, yes.

25 MS. AUBIN: He wanted the JRAP IRs, I think.

26 MR. MYERS: Just again I will note that  
27 interrogatories from another proceeding are not a proper  
28 purpose for this technical conference. So I will leave it

1 to the panel if they choose to respond or not.

2 DR. HIGGIN: The relevance is to the questions that  
3 Mr. Rubenstein asked you. Mr. Vetsis just referred to the  
4 fact that there is a deferred revenue during the IRM period  
5 to 2027.

6 My question is straightforward. How will you adjust  
7 the UTR during that period? It is similar to the question  
8 that Mr. Rubenstein asked you. So I would like you to try  
9 and answer that question by including not only any updates  
10 to rate base and so on, which you have now undertaken to  
11 do, but also how are you going to handle the deferred  
12 revenue requirement during...

13 MR. MYERS: Mr. Higgin, can you maybe wait until the  
14 item is on the screen so the witnesses have a sense of what  
15 you are talking about?

16 MS. AUBIN: It is an Excel file and it is currently  
17 opening, as hopefully everyone can see.

18 DR. HIGGIN: So at the top is the transmission which  
19 is the relevant to the UTR. So the question is, you have  
20 discussed the fact that during the period of your IRM,  
21 there will be increases to the revenue requirement and to  
22 rate base and you are going to explain how you think that  
23 could be dealt with.

24 All I am asking you, can you do the same by including  
25 how you will handle the deferred -- forecast deferred  
26 revenue requirement shown here.

27 MR. VETISIS: Dr. Higgin, ultimately it will depend on  
28 the outcome of this proceeding. If the OEB decides to

1 proceed with one of the cost based approaches as proposed  
2 by Elenchus, we would be following the methodology there.

3 I would take you to the Elenchus report, so that is  
4 attachment 1 of our -- or attachment A of our ETS rate  
5 submissions on page 33 of the report. That is page 33 at  
6 the bottom. There should be a heading that says "Deferral  
7 and variance account balances".

8 In this section here, Elenchus outlines that, you  
9 know, a share of the deferral account -- deferral and  
10 variance account balances through their methodology would  
11 be allocated to export customers as well. And so in a  
12 future rate period when Hydro One went to dispose of the  
13 balances from its revenue deferral, the export customers  
14 would attract their share of those balances consistent with  
15 the approach here.

16 DR. HIGGIN: So that would be the -- including the  
17 balance from the deferred revenue account, your new  
18 deferred revenue account?

19 MR. VETSIS: Correct.

20 DR. HIGGIN: Okay. So still if you are going to  
21 answer Mr. Rubenstein's request, then it seems to me it is  
22 an incomplete answer unless you include an estimate of the  
23 deferred balances that will also flow, because if you  
24 update the ETS rate as requested based on the rate base and  
25 so on, wouldn't you do that and include the balances in  
26 that update?

27 MR. VETSIS: So these balances that we're talking  
28 about, Dr. Higgin, won't be disposed of -- assuming the OEB

1 approves of Hydro One's deferral proposal in JRAP, wouldn't  
2 be disposed of until 2028.

3 Just to be clear, my understanding of the undertaking  
4 from Mr. Rubenstein was to describe a methodology of how we  
5 would mechanistically adjust the ETS in each year. It is  
6 not an undertaking to fully update the ETS rate with a  
7 bottom-up calculation.

8 So I think what that undertaking would give you is an  
9 idea of how the rate would be adjusted year over year.

10 DR. HIGGIN: Right. Just to clarify that your  
11 response would not include in that methodology updating  
12 each year for deferral account balances. Is that my  
13 understanding?

14 MR. VETISIS: Well, we're taking it away to think about  
15 it, Dr. Higgin. So the idea is we will think about what an  
16 approach might look like and describe it in that  
17 interrogatory.

18 DR. HIGGIN: Right. So can I ask you then to think  
19 about it, about including thinking about the deferral  
20 balances, including particularly the deferred revenue that  
21 you are seeking.

22 Could you include that thought in there. Thank you.

23 So those are my questions.

24 MR. VETISIS: Again, Dr. Higgin, just to be clear. The  
25 deferral balances that you are talking about will not be  
26 recovered from customers until 2028.

27 DR. HIGGIN: Right.

28 MR. VETISIS: They won't be recovered in the 2023-2027

1 period that Mr. Rubenstein was talking about.

2 DR. HIGGIN: Okay. All right. Thank you very much.  
3 Those are my questions. Thank you.

4 MR. SIDLOFSKY: Dr. Higgin, thank you. It is just  
5 coming up on 11:10. We're finished with panel 1 now and we  
6 could be starting panel 2. I am wondering maybe the best  
7 approach at this point would be to take our morning break  
8 so that we don't break up panel 2 and we will start panel 2  
9 at 11:25. Unless anyone has any objections about that,  
10 let's take our morning break. Thank you.

11 --- Recess taken at 11:08 a.m.

12 --- On resuming at 11:25 a.m.

13 Welcome back. We are now moving on to panel 2, and  
14 Mr. Myers, perhaps you could introduce Mr. DesLauriers.

15 MR. MYERS: Thank you. So panel 2 is our expert from  
16 Charles Rivers Associates, and it is Mr. David DesLauriers.  
17 He is -- I believe his title is vice-president with Charles  
18 River Associates. Correct me if I'm wrong. Thank you.

19 MR. SIDLOFSKY: Okay. And that brings us to Mr.  
20 Vellone for APPrO.

21 **HYDRO ONE NETWORKS INC. - PANEL 2**

22 **David DesLauriers**

23 **EXAMINATION BY MR. VELLONE:**

24 MR. VELLONE: Thank you very much, Mr. Sidlofsky.

25 Mr. DesLauriers, good morning. Welcome.

26 MR. DesLAURIERS: Good morning, Mr. Vellone.

27 MR. VELLONE: I have a follow-up question on a joint  
28 response from Charles River and Hydro One to VECC

1 Interrogatory No. 4.

2 MR. DesLAURIERS: Yes.

3 MR. VELLONE: So my understanding of the response to  
4 this question, from Charles Rivers' perspective at least,  
5 was the question was a little out of scope of what you were  
6 asked to look at. Is that a fair understanding of the  
7 response, from your perspective, at least?

8 MR. DesLAURIERS: Could we -- could I see the  
9 question, 4.1?

10 MR. VELLONE: Please.

11 MR. DesLAURIERS: Whether or not exports are subject  
12 to congestion payments. Okay. Now you can, if you could,  
13 please, scroll back down to the 4 response. Update.  
14 Update.

15 Okay. I have had a chance to read it. Can you repeat  
16 your question, Mr. Vellone?

17 MR. VELLONE: Certainly. This is a joint response  
18 from Hydro One --

19 MR. DesLAURIERS: Yes.

20 MR. VELLONE: -- and Charles River, so I just want to  
21 make sure I understand your portion of that response. My  
22 understanding of your portion of that response, it is  
23 really the second-to-last --

24 MR. DesLAURIERS: Hmm-hmm.

25 MR. VELLONE: -- second-to-last sentence and third and  
26 final sentence in that big paragraph. It is really, we  
27 weren't asked to do it, so we are not in a position to  
28 comment on it. Is that necessarily --

1 MR. DesLAURIERS: We were not sure. Sorry, I will let  
2 you...

3 MR. VELLONE: That is the question. Is that your  
4 response?

5 MR. DesLAURIERS: The scope was to specifically look  
6 at export rates within the jurisdiction studied. You know,  
7 the remit wasn't specifically to comment on or look for  
8 congestion payment rates along the same side.

9 That being said, we did conduct tariff analysis and  
10 review ISO tariffs. And I know that we have commented that  
11 we did not find congestion rates similar to, for instance,  
12 ICP in place in other jurisdictions, but you are correct,  
13 the focus of our report was on export rates, rates that  
14 would be recovering the revenue requirements of the grid.

15 MR. VELLONE: Okay. Thank you for that.

16 I am going to come back to the comment that you didn't  
17 find congestion payments in your jurisdictional review that  
18 are similar to how they're set here in Ontario. That is  
19 really -- if I understood that part of your evidence  
20 properly, the way Ontario does its calculation and process  
21 for congestion rents is unique based on your -- the review  
22 of the jurisdictions that you looked at?

23 MR. DesLAURIERS: My understanding is that it is  
24 unique. I have not seen in the course of the work that we  
25 conducted for the export rate analysis -- we have not seen  
26 a similar mechanism for congestion rent recovery. That is  
27 a mechanism that I understand is in place in Ontario which  
28 is an auction-based approach.

1 MR. VELLONE: So it is really to the mechanism that is  
2 unique. But there are mechanisms in other jurisdictions  
3 that do seek to recover congestion rents that use different  
4 mechanisms than we do in Ontario. Is that fair to say?

5 MR. DesLAURIERS: Correct. And I believe we've  
6 responded to some IRs on whether congestion rents are  
7 recovered and how in other jurisdictions, and with the  
8 exception of one jurisdiction, I believe we indicated that  
9 the LMP was the main recovery mechanism for congestion  
10 rents in the jurisdictions in the U.S. at least that we  
11 reviewed.

12 MR. VELLONE: Is the exception you noted just there,  
13 is that New York ISO?

14 MR. DesLAURIERS: Yes.

15 MR. VELLONE: Can we go there, please, now, and  
16 frankly, to try to make life a little bit easier, I took  
17 some extracts of your report and included them at pages 4  
18 and 5 of the APPrO compendium.

19 MR. DesLAURIERS: Yes.

20 MR. VELLONE: It is probably PDF page 5, printed  
21 page 4. And this is just an extract of your report. And  
22 all I have done, frankly, is just side-barred the piece on  
23 New York ISO. Why don't I start with just an open-ended  
24 question and allow you to speak to it.

25 In the course of your research, can you speak at a  
26 high level as to how in New York they established an export  
27 tariff? And I am particularly interested in the inclusion  
28 of congestion payments in that tariff, so that is the



1 purpose of my questioning. So open-ended question.

2 MR. DesLAURIERS: Sure, sure. Well, at a high level  
3 we reviewed the New York ISO [audio dropout], and in the  
4 OATT there is a reference to a transmission utility, a TUC,  
5 transmission utility charge -- sorry, transmission usage  
6 charge, TUC, and I would have to research what part of the  
7 tariff it is referenced in. But my understanding of that  
8 charge is that it is in place to collect congestion rents  
9 as well as some losses within the New York OATT.

10 MR. VELLONE: And the TUC in New York is -- I guess  
11 that is your equivalent to the ETS rate here in Ontario?  
12 From a comparator point of view, that is what you are  
13 looking at?

14 MR. DesLAURIERS: My understanding is that there is  
15 another charge, the TSC, transmission service charge, which  
16 is in place, which is another rate component in the OATT  
17 that is set to recover the embedded transmission revenue  
18 requirements of the grid.

19 So the TSC is separate from the TUC, the usage charge,  
20 which is -- the latter being the recovery mechanism for  
21 congestion rents.

22 MR. VELLONE: Okay. And in the TSC, am I correct in  
23 reading your summary here that their starting point -- so  
24 let's go to the differences between New York and Ontario  
25 first. I think that makes sense.

26 MR. DesLAURIERS: Sure.

27 MR. VELLONE: They set transmission charges on a zonal  
28 basis there, based on the specific transmission owner,

1    whereas we have uniform rates here in Ontario; is that  
2    right?

3           MR. DesLAURIERS:   Yes.  It is based on an MWh basis,  
4    and it is more on a zonal.  It is based upon where the  
5    transaction takes place between withdrawal and injection,  
6    and rather than having a system-wide rate, such as what we  
7    have reported for other jurisdictions in our study, they  
8    have a series of zonal-specific rates that reflect the  
9    particular transmission owner's systems that are used as  
10   far as -- as far as can be determined for each transaction.

11          MR. VELLONE:   Okay.  So for the purposes of my  
12   question, let's look at how the rate is set for a  
13   particular transmission service provider.

14          My understanding is the starting point, frankly, is  
15   that transmission owner's embedded costs for providing  
16   transmission service.  Is that right?

17          MR. DesLAURIERS:  That's my understanding, yes, the  
18   embedded revenue requirement.

19          MR. VELLONE:   But then the TSC is subject to several  
20   adjustments to account for grandfathered agreements for  
21   transmission rates revenues and for congestion payments.  
22   Is that right?

23          MR. DesLAURIERS:  That's our understanding of how that  
24   works.

25          MR. VELLONE:   Can you just put a bit more granularity  
26   on kind of the nature of each of those three adjustments,  
27   please.

28          MR. DesLAURIERS:  Well, I will try.  You know, we are

1 familiar with these adjustments. We aren't at the ISO and  
2 haven't been involved in actually clearing the costs coming  
3 through the tariff.

4 So there is only really a level of granularity I could  
5 get to, which would be based on our understanding of the  
6 tariff language.

7 But my understanding is, subject to check, that there  
8 is a transmission service charge which is in place to  
9 collect the embedded transmission revenue requirements of  
10 the TOs, granted on a zonal basis as opposed to a grid wide  
11 basis as we have seen in the other jurisdictions.

12 And then there are offsets based upon revenues that  
13 are coming in from a TUC, for instance, and other areas. I  
14 am afraid that is about as granular as I can get without  
15 having actually been within the operations of the rate-  
16 setting mechanics.

17 MR. VELLONE: Well, maybe I could do this by way of  
18 undertaking, then. One of the themes that I am exploring  
19 in this proceeding is whether or not similar offsets make  
20 sense in an Ontario context with regards to the ETS rate.

21 And so if you are willing by way of undertaking, could  
22 you look into what is publicly available on the rationale  
23 for the offsets made in the New York market. I do believe  
24 that that would be informative for the parties in Ontario  
25 considering setting an ETS rate here.

26 MR. DesLAURIERS: I would be happy to do that. I  
27 caution that there is limited regulatory rationale on the  
28 setting of these rates. There's description in the tariff

1 as to how these mechanisms are applied and are calculated  
2 for the purposes of collecting transmission revenues.

3 To the extent as we have outlined in our report, there  
4 is specific regulatory rationale for the setting of each of  
5 those rates that is publicly available, so that may be a  
6 difficult exercise.

7 What we found in our research of regulatory rationale  
8 for the U.S. jurisdictional rates is that they were legacy  
9 rates from pre-ISO days coming from the organized power  
10 pools that existed in those regions prior to the  
11 implementation of Order 2000 and the ISOs and RTOs as we  
12 know them today. So we're happy to see if there is  
13 research out there. I am just cautioning that I am not  
14 aware that that will be publicly available or readily  
15 available.

16 MR. VELLONE: With my expectation sufficiently  
17 lowered, I would ask to have that undertaking marked.

18 MR. DesLAURIERS: Certainly.

19 MR. SIDLOFSKY: We will make that undertaking JT1.4,  
20 thanks.

21 **UNDERTAKING NO. JT1.4: HYDRO ONE TO PROVIDE PUBLICLY**  
22 **AVAILABLE INFORMATION ON THE RATIONALE FOR OFFSETS**  
23 **MADE IN THE NEW YORK MARKET.**

24 MR. VELLONE: And then by way of a follow up question,  
25 could you please endeavour to respond to VECC Interrogatory  
26 No. 4, but only for New York? It is the only jurisdiction  
27 where congestion payments are in the equivalent to the ETS  
28 rate, and so I do think answers for that jurisdiction

1 specifically to these questions would be informative to the  
2 panel.

3 MR. DesLAURIERS: 4.4 or all of the questions to 4.1?

4 MR. VELLONE: 4.1, sub bullets (i) through to (v),  
5 again based on publicly available information. My  
6 understanding is you are doing a bit of a jurisdiction  
7 analysis, but narrowing the scope just to New York.

8 MR. DesLAURIERS: We can do our best to answer those  
9 questions specifically to New York, based upon our  
10 understanding of the tariff.

11 MR. VELLONE: Can I get that marked, Mr. Sidlofsky?

12 MR. SIDLOFSKY: JT1.5.

13 **UNDERTAKING NO. JT1.5: TO PROVIDE A RESPONSE TO VECC**  
14 **IR. NO. 4.1, SUB BULLETS (I) THROUGH (V), NARROWING**  
15 **THE SCOPE TO ONLY NEW YORK**

16 MR. VELLONE: Those are my questions, thank you, Mr.  
17 DesLauriers.

18 MR. DesLAURIERS: Thank you, Mr. Vellone.

19 MR. SIDLOFSKY: Thanks, Mr. Vellone.

20 MR. PATTANI: Mr. Sidlofsky, can I ask a couple of  
21 questions, please?

22 MR. SIDLOFSKY: Mr. Pattani? Sure.

23 MR. PATTANI: I am Naren Pattani again.

24 **EXAMINATION BY MR. PATTANI:**

25 Mr. DesLauriers, there is a lot of discussion in the  
26 submissions before and right now about the difference or  
27 distinctness of ISO and Ontario charge rates and so on.

28 Before I go into the matter of inter-tie congestion

1 pricing, would I be right in saying that the fact that the  
2 domestic customers in Ontario pay on the basis of capacity  
3 used, so monthly megawatt capacity, while the energy  
4 charges are based on just plain dollars per megawatt-hour,  
5 in most of the U.S. utilities, perhaps almost all, use the  
6 OATT which is based on capacity charges and so on.

7 So would you say in that respect that the way we apply  
8 our ETS on a dollar per megawatt basis is a distinct issue,  
9 it is different from others?

10 MR. DesLAURIERS: Let me make sure I understand the  
11 question, Mr. Pattani. Are you asking, due to the fact  
12 that the ETS rate is set on a volumetric rate in Ontario,  
13 that that is the distinguishing factor between that rate  
14 and the ones that are in effect in the in U.S.  
15 jurisdictions we studied?

16 MR. PATTANI: Yes. When I use the term  
17 distinguishing, I am not trying to sort of say that it is  
18 extremely good or bad. I am just saying it is different  
19 from the capacity-based rates they have in the U.S.

20 MR. DesLAURIERS: Well, not all of the rates that are  
21 in place in the U.S. are capacity-based. For instance, I  
22 think New York ISO rates are on a megawatt-hour basis. I  
23 think California rates are on a megawatt-hour basis. So I  
24 would like to make that correction, if I could.

25 MR. PATTANI: Okay. So compared to Quebec, PJM and  
26 then some other -- many others, and compared even to  
27 Ontario customers, for that matter, domestic, the charges  
28 that are paid by market participants in Ontario, we do have

1 something of a different type of mechanism for energy  
2 charges for ETS exports.

3 MR. DesLAURIERS: The distinction you posed in the  
4 question is whether the fact that the ETS rate in Ontario  
5 is set on a megawatt-hour basis is different than in the  
6 U.S.

7 MR. PATTANI: Yes.

8 MR. DesLAURIERS: I think my response is there are  
9 jurisdictions in the U.S. that we studied that are set on  
10 an equal basis with regards to recovery of the rate on an  
11 MWh basis.

12 The other jurisdictions are set on a recovery basis,  
13 based on capacity.

14 MR. PATTANI: For an exporter, is it more advantageous  
15 to have an energy-based rate or capacity-based rate?

16 MR. DesLAURIERS: We really don't have an opinion on  
17 that. I believe that we responded to an interrogatory  
18 that, you know, demand and megawatt-hour designed rates, as  
19 long as they recover the revenue requirement, there really  
20 is no particular advantage or disadvantage to each. There  
21 are different price signals, capacity rates are sending a  
22 signal that capacity is scarce, energy based rates send a  
23 signal that energy volumetric usage is scarce.

24 So it is really -- we see it really as a matter of  
25 what price signal the rate setter wishes to send.

26 MR. PATTANI: When I use the term "advantage", an  
27 exporter can send energy for three hours in a day or three  
28 hours in a month, and he would pay only for that energy.

1 To the extent that he has to pay only for that energy,  
2 instead of having to pay for the megawatt capacity used for  
3 the month, is that an advantage for exporters?

4 MR. DesLAURIERS: I don't see one clear advantage to  
5 the other, quite frankly. It is just a different way of  
6 collecting the dollars responsible for their use of the  
7 system.

8 MR. PATTANI: Okay. Thank you. Now, in terms of us  
9 having a distinct matter of collecting congestion rents on  
10 the inter-ties and based on the market rules, so we collect  
11 our congestion rents on the basis of market difference  
12 between the two sides of interconnection.

13 I think you have said that although it is a distinct  
14 method of collecting, you seem to have agreed that through  
15 LMP or whatever else, all of the other utilities also  
16 collect congestion grants in some other way.

17 MR. DesLAURIERS: No, I wouldn't say that is correct.  
18 My understanding -- and again, the ICP mechanism in Ontario  
19 is not the subject of our study and I am not I do not claim  
20 to be an expert on it.

21 What I do understand from reading the evidence in this  
22 record is that the ICP in Ontario is collected through an  
23 auction-based approach, where exporters are putting in bids  
24 for access to particular inter-ties to make their  
25 transaction possible and scheduled. And those bids are  
26 market-based and fluctuate based upon the demand for the  
27 exporters on each of those particular inter-ties.

28 So that is my understanding, high-level, again. You



1 know, the ICP mechanism is not something that we studied as  
2 part of our -- in this jurisdiction.

3 That being said, we also are aware that LMP,  
4 locational marginal price, is the primary mechanism in the  
5 U.S. jurisdictions to reflect the costs of congestion in  
6 the transaction.

7 So whereas the ICP in Ontario may be a charge assessed  
8 to the export transaction, the LMP has now come up in  
9 energy-based supply auction process. So those dollars are  
10 paid by the, what I would assume to be load that is buying  
11 that particular bundle of energy.

12 MR. PATTANI: Yes. In the same way as exports are  
13 paying as a load taking power from the loads, the export  
14 load in Ontario.

15 MR. DesLAURIERS: But a different mechanism.

16 MR. PATTANI: Yes, different mechanism.

17 MR. DesLAURIERS: There is an option process on the  
18 generation supply for U.S., and then ICP is an auction  
19 process on capacity on the inter-tie.

20 MR. PATTANI: But in simple language, can you agree  
21 that one way or another congestion prices are paid by loads  
22 in other jurisdictions or exporters in other jurisdictions  
23 as much as they're paid by exporters in Ontario?

24 MR. DesLAURIERS: Well, I wouldn't agree in terms of  
25 "as much". I don't know what "as much" means. I haven't  
26 studied, but I would agree with you, Mr. Pattani, that  
27 congestion costs are recovered but through different  
28 mechanisms and different market interactions in the U.S.

1 versus what takes place in Ontario.

2 MR. PATTANI: Okay. Thank you very much.

3 MR. DesLAURIERS: You're welcome.

4 MR. PATTANI: Thanks. I'm done, Mr. Sidlofsky.

5 MR. SIDLOFSKY: Mr. Pattani, thanks again.

6 We will move on to Mr. Rubenstein for Schools.

7 **EXAMINATION BY MR. RUBENSTEIN:**

8 MR. RUBENSTEIN: Good morning.

9 MR. DesLAURIERS: Good morning, Mr. Rubenstein.

10 MR. RUBENSTEIN: Just two questions. Can we pull up  
11 SEC 2. So in part A we had asked you essentially to  
12 provide a number of illustrative but representative  
13 examples of exporters and export transactions and provide  
14 the total impact of the export transmission service rates  
15 by jurisdiction.

16 And in your response -- I'm going to somewhat  
17 summarize -- you essentially say, I don't understand what  
18 you mean and we can't do it.

19 And maybe -- and I will take blame for that, the  
20 question being unclear. I will explain to you what I am  
21 seeking and you can tell me if there is some way that this  
22 could be done.

23 MR. DesLAURIERS: Sure.

24 MR. RUBENSTEIN: In your report you provide in a  
25 number of tables essentially in the native tariff and then  
26 translated into Canadian dollars and megawatt-hour basis,  
27 the different export transaction service rates or amounts  
28 for the different jurisdictions, but there is -- there are

1 multiple different ones for each jurisdiction. Some of  
2 them are on an annual basis, they're daily rates, they're  
3 on-peak, they're off-peak, there is a whole host of  
4 different things.

5 What it is very hard to understand from this is, at  
6 the end of the day what is an exporter paying there versus  
7 what are they paying here, sort of all-in when it comes to  
8 export transmission service.

9 So the intent of A was if you essentially could  
10 provide, using a couple of illustrative examples of sort of  
11 exporters and -- just to get a sense so that we can  
12 understand at the end of the day what amounts are being  
13 paid, you know, in those jurisdictions versus Ontario.

14 MR. DesLAURIERS: Well, there would have to be some  
15 assumptions as to what the amount of capacity is being  
16 reserved by the exporter and what the flows are, and I  
17 think that was some of our complications without actually  
18 getting into actual examples.

19 Is it that you are seeking clarification on how a  
20 demand rate would be applied to a bill based upon a certain  
21 amount of capacity reserved?

22 MR. RUBENSTEIN: Well, ultimately at the end of the  
23 day is to understand, you know, in Ontario -- I mean, there  
24 are different, obviously, proposals in this application,  
25 but, you know, using the 180 -- the current 180, \$1.85 per  
26 megawatt-hour, essentially, that is the rate. It doesn't  
27 matter when the exports flow and how much. That is the  
28 rate.

1 But in the other jurisdictions the structures are just  
2 very different. So you can't do such a simplistic  
3 analysis. So I am just trying to understand and using your  
4 expertise essentially to provide us, I would call it sort  
5 of a bill impact analysis so we can get a comparison of how  
6 Ontario's rates really do -- or an exporter, what they are  
7 paying here for similar type of flow as compared to the  
8 other jurisdiction.

9 And I recognize there are lots of assumptions, and I  
10 am in your hands about the sort of, just outlining what the  
11 simplistic assumptions are, so we can really just get a  
12 sense.

13 MR. DesLAURIERS: Well, one thing I can tell you is  
14 that if you're comparing the 1.85, which is a dollar per  
15 megawatt-hour rate, to another \$1 per megawatt rate in U.S.  
16 jurisdictions, for instance -- I am going to our report --  
17 New York ISO has a range of \$4.11 to 7.75 per megawatt-  
18 hour. I mean, that really would be the price difference.  
19 You are just charging a different per megawatt-hour rate on  
20 the same volume of transaction.

21 So I am not sure that --

22 MR. RUBENSTEIN: So ISO is the easy one. The others  
23 are harder --

24 MR. DesLAURIERS: Yeah, well, California as well. So,  
25 you know, we also converted the demand-based rates to  
26 energy-based rates, I believe, in table 5.

27 MR. RUBENSTEIN: Sure. But maybe it just my  
28 misunderstanding of what exactly -- you know, if we look at

1 page 16 of your report, where you have done that --

2 MR. DesLAURIERS: Right. Right.

3 MR. RUBENSTEIN: -- you have an annual service charge,  
4 a monthly service charge, a weekly --

5 MR. DesLAURIERS: Well, they're all --

6 MR. RUBENSTEIN: I presume we're not adding all of  
7 those on top of each other.

8 MR. DesLAURIERS: No, they're all dollar per megawatt-  
9 hour rates. They're just stated for different periods. So  
10 they're stated on a directly comparable basis to the 1.85.

11 MR. RUBENSTEIN: Okay. So then we could do that, I  
12 guess.

13 MR. DesLAURIERS: Yeah.

14 MR. RUBENSTEIN: All right. Well, then I will take  
15 that. Okay.

16 MR. DesLAURIERS: That was sort of the -- it is a good  
17 question, and we anticipated it, and we converted these to  
18 megawatt-hour rates assuming a 100 percent load factor  
19 basis.

20 MR. RUBENSTEIN: Okay. Well, thank you very much.

21 Can I ask you then to move to SEC 2. This is part B.  
22 And I just want to make sure I understand.

23 MR. DesLAURIERS: Sure.

24 MR. RUBENSTEIN: And I think you actually had a brief  
25 discussion with Mr. -- the previous questioner about this.

26 In 2(b) we had asked:

27 "Do any other surveyed jurisdictions have any  
28 similar mechanism to IESO's inter-tie congestion

1 pricing? If so, please provide details."

2 In your response you say:

3 "CRA is not aware of any surveyed jurisdictions  
4 that have similar mechanisms to the IESO's inter-  
5 tie congestion pricing. In U.S. jurisdictions  
6 congestion is addressed through the operation of  
7 LMP for power supply, which reflects congestion  
8 on a locational basis."

9 And then you -- just so I understand what your  
10 response is --

11 MR. DesLAURIERS: Sure.

12 MR. RUBENSTEIN: -- should I take it then what you are  
13 trying to say, in other jurisdictions would extract similar  
14 impacts as ICP through their LMP, I guess near or at an  
15 inter-tie?

16 MR. DesLAURIERS: And this sort of goes -- sure. This  
17 sort of goes back to a response I gave to Mr. Pattani as  
18 well.

19 I think we all agree that congestion -- the costs of  
20 congestion are reflected in the transaction in the U.S.  
21 jurisdictions. They are just reflected in a different part  
22 of the transaction, which is the LMP, which is the  
23 locational marginal price, as opposed to an ICP in Ontario,  
24 which is an auction-based bid for that capacity at that  
25 particular inter-tie at that point in time.

26 So congestion costs do play a role. In the U.S., for  
27 instance, they provide a signal for where additional  
28 economic benefit could be achieved by relieving congestion

1 points on the system.

2 That being said, I don't know what the degree of the  
3 LMP -- if we were to just strip out the L piece of the LMP  
4 and tally up those revenues compared to what is collected  
5 through ICP in Ontario, I am not sure what that would be.

6 MR. RUBENSTEIN: Fair enough.

7 MR. DesLAURIERS: I think that gets to the second half  
8 of your question as to what the magnitude would be.

9 MR. RUBENSTEIN: I wasn't even going to ask you that.  
10 I was just trying to understand.

11 And what exactly -- so to understand what is happening  
12 here is an exporter's willingness to pay is higher, would  
13 be -- you know, instead of in Ontario, for example, you --  
14 an exporter is willing to pay in ICP in addition to the  
15 costs of the energy, in the U.S. jurisdictions, where it is  
16 LMP, it is really an -- that willingness to pay is just  
17 combined.

18 MR. DesLAURIERS: It is baked into that price, into  
19 the energy price.

20 Now, keep in mind, Mr. Rubenstein, there are also  
21 FTRs, financial transmission rights that are sort of a  
22 separate process that is auction-based as well, that  
23 provide participants in the market the ability to offset  
24 some of those congestion related costs. But it's not  
25 directly tied to the LMP, if you will. It is a separate  
26 operation.

27 MR. RUBENSTEIN: And that would be similar to our  
28 transmission rights market in Ontario?

1 MR. DesLAURIERS: Yes, yes.

2 MR. RUBENSTEIN: Okay. Thank you very much. That is  
3 very helpful. Those are all of my questions.

4 MR. DesLAURIERS: You're welcome.

5 MR. SIDLOFSKY: Mr. Rubenstein, thank you. We are on  
6 to Mr. Pietrewicz for Board Staff.

7 **EXAMINATION BY MR. PIETREWICZ:**

8 MR. PIETREWICZ: Thank you, Mr. Sidlofsky. Good  
9 morning, Mr. DesLauriers.

10 MR. DesLAURIERS: Good morning.

11 MR. PIETREWICZ: My name is Andrew Pietrewicz, and I  
12 am asking questions on behalf of OEB staff. I only have a  
13 handful for you today.

14 The first one I would like to reference is OEB Staff  
15 19. That is page 51 out of 383 in the PDF page, if that  
16 helps. Yes. There you go. OEB Staff 19, particularly G.

17 Mr. DesLauriers, CRA's response to OEB Staff 19G,  
18 starting at about line ten, references rate-setting  
19 methodologies used by U.S. jurisdictions that were surveyed  
20 by CRA.

21 MR. DesLAURIERS: Hmm-hmm.

22 MR. PIETREWICZ: It mentions that they allocate each  
23 transmitters annual transmission revenue requirement by  
24 their peak load contributions, right, over a specific time  
25 frame.

26 And the idea is picked up in the next interrogatory  
27 response that I want to reference, and we can stay there.  
28 That is OEB Staff 20c, and that is on page 54 of 383.



1 MR. DesLAURIERS: Right. Let me just take a moment to  
2 go to my hard copy, it may be easier.

3 MR. PIETREWICZ: Sure. And that is the last  
4 interrogatory I will reference here.

5 MR. DesLAURIERS: We are looking for which ones?

6 MR. PIETREWICZ: 19 and 20, OEB Staff.

7 MR. DesLAURIERS: Okay, they're right next to each  
8 other, so that should make it easy.

9 I have had a chance to glance quickly at 19.

10 MR. PIETREWICZ: So I would ask you to turn your  
11 attention to 20D, and the short of it is that OEB staff  
12 asked about its jurisdictional survey.

13 And in 20C, CRA said that rates in U.S. jurisdictions  
14 were designed to recover the total annual transmission  
15 revenue requirement. That is ATRR over some forecast and  
16 that is the idea.

17 MR. DesLAURIERS: Yes.

18 MR. PIETREWICZ: Likewise, 20D, OEB staff asked what  
19 is this thing call the annual transmission revenue  
20 requirement, and CRA gave a very helpful list of things  
21 that comprise, or are indicative, or belong to that sort of  
22 thing.

23 MR. DesLAURIERS: Sure.

24 MR. PIETREWICZ: You said it is the amount of revenue  
25 a company must recover annually for costs associated with  
26 its transmission system.

27 And so really the question here is, in light of that  
28 context, are you basically saying -- CRA is saying that

1 among the jurisdictions that you surveyed in the U.S., that  
2 the rates charged to those who want to use the transmission  
3 system for export power, those rates are developed on a  
4 cost recovery basis? That's the basic question.

5 MR. DesLAURIERS: Understood. I would say that rates  
6 in U.S. jurisdictions are recovered on a cost-basis. And  
7 when we say cost basis in the sort of realm of ratemaking  
8 and cost of service, we mean that there is a relationship  
9 between the outcome of the rate and the underlying embedded  
10 costs of the system that the rate that is being used to  
11 provide the service.

12 MR. PIETREWICZ: Thank you. That's helpful.

13 MR. DesLAURIERS: That is what we mean by cost-based.

14 MR. PIETREWICZ: It is not a pay what you want system.  
15 Yes?

16 MR. DesLAURIERS: No, no. In rate-setting, there are  
17 two basic kinds of rate-setting approaches. There is cost-  
18 based and then there is market-based. Sometimes there is  
19 negotiation-based. But what we found in the U.S.  
20 jurisdictions is cost-based, based upon kinds of costs we  
21 listed in D as in David in that response.

22 MR. PIETREWICZ: Yes. Thank you, kindly. Likewise  
23 continuing for my next question on -- still on OEB Staff  
24 20, this time part C.

25 CRA mentioned that -- it referred to FERC order 888.  
26 I want to just get a very quick clarification here. The  
27 reference says that -- and I am reading -- that FERC order  
28 888 required all public utilities that own, operate and

1 control interstate transmissions facilities to offer  
2 network and point to point transmission services under the  
3 same rates, terms and conditions, and my -- with some  
4 flexibility to adopt as necessary.

5 My quick clarification here is, are you saying in this  
6 statement that rates in those jurisdictions for exporters  
7 and for domestic customers are required to be offered under  
8 the same rates and conditions? Is that the basic idea?

9 MR. DesLAURIERS: Well, basically. But order 888,  
10 889, 890, all went to opening up the transmission system in  
11 the United States to make it open access, if you will.

12 And there were certain principles that were laid out  
13 in those orders that were relayed over to the setting of  
14 the rates that are in place today. Non-discrimination, the  
15 notion of fair cost recovery, that customers with like cost  
16 profiles are treated with uniform rates, non-  
17 discriminatory. So similar cost profiles, you don't pay  
18 different rates, et cetera.

19 And so that was really the intent of that quotation  
20 there in that response. It's just to point out that the  
21 rates that are in place today were set up to be consistent  
22 with those principles that were outlined in the orders I  
23 just described.

24 MR. PIETREWICZ: Okay, great. Thank you. This is a  
25 reference to VECC 36, but actually I want to quote from  
26 something that is in the APPrO compendium. So if you  
27 wouldn't mind bringing up the APPrO compendium on page 6 of  
28 16. It is also in the CRA report, but this is a handy

1 reference.

2 MR. DesLAURIERS: Sure.

3 MR. PIETREWICZ: Page 6 of 16. CRA mentions that non-  
4 PJM, PJM, that the ETS reflects the composite or average  
5 cost of service in the PJM region, under the principle that  
6 all other facilities are available to provide such service.  
7 So it reflects the average or composite cost of service.

8 My question to you then is, are you saying that in PJM  
9 exporters pay the same rate as domestic customers do? Or  
10 at least what the composite or average domestic customer  
11 would?

12 MR. DesLAURIERS: Yes, yes.

13 MR. PIETREWICZ: Sorry, was that a yes to the question  
14 or --

15 MR. DesLAURIERS: Yes, yes.

16 MR. PIETREWICZ: So are you aware whether this is the  
17 case in other jurisdictions, aside from PJM?

18 MR. DesLAURIERS: It is. It's based upon the formula  
19 that is used that we have the embedded cost of service made  
20 up of these revenue requirements that represents the cost  
21 of the grid being served within that footprint.

22 So PJM maybe has, for instance, twenty different  
23 transmission owners, ten I would have to take a look. I  
24 know there are more than three and less than 30. New York  
25 ISO the same. ISO New England the same.

26 For the purpose of deriving this rate, the costs are  
27 collected and bundled and summed together and divided by  
28 the either CP or MWh. So just by pure mathematics, it is a

1 rate that applies to every user equally.

2 MR. PIETREWICZ: Thank you. And this might be  
3 stretching your memory a little bit, but do you know if  
4 this is what you refer to in the 2012 CRA analysis as an  
5 equivalent network charge?

6 MR. DesLAURIERS: Unfortunately, I wasn't the author  
7 on the 2012 analysis. So I couldn't comment on that.

8 MR. PIETREWICZ: Okay. I would like to turn to --  
9 just a couple of more questions.

10 MR. DesLAURIERS: Sure.

11 MR. PIETREWICZ: I would like to turn to OEB Staff 12.  
12 That is page 29 out of 383 for the -- there you go. Thank  
13 you.

14 So OEB Staff 12, this is a question that OEB staff  
15 posed to Elenchus, but I would like to ask for your  
16 thoughts on it, Mr. DesLauriers.

17 MR. DesLAURIERS: Sure.

18 MR. PIETREWICZ: We asked Elenchus based on its own  
19 survey of other jurisdictions, we asked how capital and  
20 operating costs are allocated between domestic customers  
21 and exports from a transmission rates point of view.

22 Elenchus said basically that it did not find any  
23 jurisdictions in which costs are allocated between domestic  
24 and export classes, and therefore, these jurisdictions that  
25 Elenchus studied don't have separate domestic and export  
26 transmission rates.

27 So my question to you is, is this also your  
28 experience? Obviously in your own review or experience in

1 these markets, is it your experience that in other  
2 jurisdictions transmission costs are not allocated between  
3 domestic and export classes and that exporters don't have  
4 separate rates?

5 MR. DesLAURIERS: Correct. That is my understanding  
6 of that --

7 MR. PIETREWICZ: Thank you.

8 MR. DesLAURIERS: -- preamble or that cite in the  
9 Elenchus report.

10 MR. PIETREWICZ: Great. And have you found that  
11 generally exporters pay what domestic customers pay for  
12 transmission service?

13 MR. DesLAURIERS: In those U.S. jurisdictions where  
14 that methodology is used, the grid-wide -- grid-wise  
15 embedded cost of service divided by either CP or MWh  
16 demand, yes.

17 MR. PIETREWICZ: Right. And I don't expect you to be  
18 familiar with the Ontario context, but just on a general  
19 understanding of the Ontario context, would this be akin to  
20 exporters paying the same OEB-approved uniform transmission  
21 rates that domestic customers pay? Is that analogous?

22 MR. DesLAURIERS: What's not analogous, just, Mr.  
23 Pietrewicz, just to make the distinction, is that my  
24 understanding of the \$1.85 rate right now isn't entirely  
25 cost-based.

26 MR. PIETREWICZ: Fair enough.

27 MR. DesLAURIERS: It is the product of a settlement.  
28 There was a cost study that was conducted, and if my memory

1 serves me correctly, the current rate was the average of  
2 the \$2 that was in place and the \$1.70. So, you know, I  
3 think it is important to remind ourselves of that  
4 distinction.

5 Under the hypothetical that the Ontario rate is cost-  
6 based and computed in an identical methodology where the  
7 entire embedded network costs are built up on a revenue-  
8 requirement basis and divided either by energy transactions  
9 or CP, then the answer to that question would be yes, but  
10 with those qualifications.

11 MR. PIETREWICZ: Thank you. Finally, two questions.  
12 Moving on to Staff 3D -- that is page 10 out of 383, Staff  
13 3d. And it has come up a couple of times, I think once  
14 again in Staff 19, once again in Naren Pattani number 3B,  
15 but we asked CRA whether you have identified any ETS rates  
16 in other jurisdictions that are based on market  
17 implications, and the answer was, no, we haven't identified  
18 -- CRA hasn't identified any ETS rates in other  
19 jurisdictions that are set or based on market implications.

20 So my question to you is, in your own words -- and I  
21 think you have already gotten to this -- but on what basis  
22 are ETS rates in other jurisdictions set?

23 MR. DesLAURIERS: It goes back to our earlier  
24 conversation. They're set on a cost basis.

25 MR. PIETREWICZ: Thank you. So regardless of how  
26 Ontario is set or how others that might not be set in the  
27 same way, like, is it your experience that what we have  
28 here or the things that we're contemplating here are not

1 inconsistent with or incompatible with the systems around  
2 us?

3 MR. DesLAURIERS: Well, again, it goes back to the  
4 distinction of how the \$1.85 is set, and also -- and again,  
5 I know Elenchus is coming on the panel tomorrow. You might  
6 want to ask them the same question --

7 MR. PIETREWICZ: Sure.

8 MR. DesLAURIERS: -- or correct what I say, but my  
9 understanding of the costs that are reflected in the  
10 Elenchus methodology, 2012 it was OM&A of the transmission  
11 system, and then today there are three options that take  
12 various percentages of what is identified as shared assets,  
13 I believe, inter-tie costs, but again, you would have to  
14 confirm with Elenchus.

15 And so my observation, that those are a different set  
16 of costs than the entire set of network costs that is used  
17 in the U.S. jurisdictions.

18 MR. PIETREWICZ: Right. And so would you be --

19 MR. DesLAURIERS: There would be a cost basis. The  
20 cost platform, if you will, is different.

21 MR. PIETREWICZ: Thank you. And would you agree,  
22 though, that, you know, different rate-making regimes can  
23 co-exist?

24 MR. DesLAURIERS: I would agree that rate design is  
25 complex. There is a cost allocation step that probably  
26 needs to take place first to establish the cost basis, but  
27 determining the proper rate to collect those costs, you  
28 know, is an art more than a science, and is a complex



1 decision that has to take into account many competing  
2 objectives.

3 MR. PIETREWICZ: Sure.

4 MR. DesLAURIERS: I think that, you know, the way they  
5 have approached it in the United States is to just make it  
6 purely cost-based, but that's not to say that other  
7 jurisdictions' approaches that consider other non-cost  
8 factors are not also appropriate.

9 MR. PIETREWICZ: Thank you. And I will finish up,  
10 moving it along just for the sake of time. In response to  
11 OEB Staff 23F -- that is page 61 out of 383, 23F -- CRA  
12 says that the rate level and structure of ETS rates vary  
13 significantly across jurisdictions, and this is the point  
14 that this interrogatory is making, that, you know, it is  
15 all over the map, basically, and that the table that is  
16 referenced here, I think it is table 5, CRA says that it  
17 wasn't presented to convey any particular comparability to  
18 the Ontario ETS rate, and CRA points out that many factors  
19 influence, you know, export rates or any network service  
20 rates, and that, you know, many factors can and all  
21 contribute to various resulting rate outcomes.

22 And therefore -- and this is the bottom line --  
23 therefore, CRA says that it believes it is difficult to  
24 draw any direct comparison between rates presented in table  
25 5 with the Ontario ETS rate.

26 So my simple question to you are -- I mean, I guess  
27 you would agree that not everybody charges the same rate,  
28 right, for transmission service?

1 MR. DesLAURIERS: Well, not everyone charges the same  
2 rate level for transmission service, as we can see from the  
3 chart above, or charge a rate on the same terms of service.  
4 Some of it is annual, some of it is weekly, some is firm,  
5 some is non-firm.

6 MR. PIETREWICZ: Right.

7 MR. DesLAURIERS: The reason for that is because MISO,  
8 , PJM, New York ISO, ISO in New England, et cetera, as we  
9 go down the list, they're all different and unique  
10 transmission systems with their own cost profile.

11 MR. PIETREWICZ: Thank you.

12 MR. DesLAURIERS: What drives that -- those  
13 differences are what we expressed in this response.

14 MR. PIETREWICZ: That's lovely. You anticipated my  
15 next question, so thank you for answering.

16 And therefore, in conclusion, given CRA's statement  
17 that it is difficult to draw any direct comparison, does  
18 this mean that the tables that are shown here can't be  
19 relied on to determine anything? Or in your own words, how  
20 should we interpret the statement that it is difficult to  
21 draw any direct comparisons? How should we interpret these  
22 results?

23 MR. DesLAURIERS: I mean, to answer your question,  
24 absolutely not. I think they are instructive, in that they  
25 give us a current snapshot of the variety of rate designs  
26 and rate levels that are being -- that are currently  
27 effective across the U.S. jurisdictions and those in Canada  
28 that we studied.

1           The question that was posed in that response was,  
2    which one of those is directly comparable to Ontario, and  
3    the reason we responded in that way was to respond to that  
4    particular question, that Ontario is unique, that it has an  
5    auction-based energy market, but another mechanism to make  
6    generators whole. It has an auction-based ICP. And those  
7    features aren't necessarily present if at all in the rates  
8    that are displayed on the screen.

9           So it is just a caution that we hesitated to look at  
10   any one of those particular regions and say they are  
11   directly comparable or identical to. Does that that mean  
12   that they're not instructive in some way? And I think they  
13   are instructive, in that they give you a sense of the  
14   variety of rate levels based upon how system costs have  
15   grown over time --

16           MR. PIETREWICZ: Right. And yet these jurisdictions  
17   continue to trade together, and there is a variety, and yet  
18   they're not inconsistent with one another.

19           MR. DesLAURIERS: The transactions operate -- yes.

20           MR. PIETREWICZ: They operate.

21           Thank you. Those are my questions. Thank you, Mr.  
22   DesLauriers.

23           MR. DesLAURIERS: Thank you, Mr. Pietrewicz.

24           MR. SIDLOFSKY: Mr. Vellone, you are back on camera.  
25   Did you have a follow-up question?

26           MR. VELLONE: I do, please. Thank you for reading my  
27   mind.

28           **CONTINUED EXAMINATION BY MR. VELLONE:**

1 MR. VELLONE: Mr. DesLauriers, I just wanted to follow  
2 up on one of the exchanges you had with OEB staff a moment  
3 ago. It related to the statement that, in general, you  
4 found that in your jurisdictional review the rates were set  
5 on a cost basis.

6 And I just want to kind of qualify -- see if we can  
7 work that conclusion in with the exchange you and I had  
8 earlier about New York and make sure I right the square, if  
9 that makes any sense.

10 My understanding in New York is that the starting  
11 point is a cost basis, but then there are adjustments made  
12 for transmission rates revenues and congestion payments.  
13 Is that correct?

14 MR. DesLAURIERS: If you go back to our discussion  
15 earlier, Mr. Vellone, on New York ISO, we talked about a  
16 TSC, transmission supply charge, and then a transmission  
17 usage charge. And the starting point was the transmission  
18 supply charge, which collected the embedded revenue  
19 requirement of New York ISO transmission owners for the  
20 grid owned by the TOs, so starting point.

21 And then offsets to that would be what is collected  
22 from the TUC, which is a separate charge to collect  
23 congestion rents and losses. So the starting point is a  
24 cost basis going back to the transmission owners embedded  
25 costs of the grid.

26 MR. VELLONE: So your view is New York would also be a  
27 cost -- I think your answer was it is a cost basis, because  
28 it's starting point was there and you didn't see those

1 adjustments as not cost-based -- or changing your answer, I  
2 guess? I just want to make sure I understand.

3 MR. DesLAURIERS: I consider the New York ISO rates to  
4 be cost-based, based upon the fact that they are based on  
5 first the ETS rate, which is a collection of embedded  
6 revenue requirements for the transmission owners.

7 MR. VELLONE: Okay. Thank you. My only other  
8 question related to the exchange you had with Staff that  
9 exporters, in general, didn't have a separate rate. Can  
10 you please speak to how export transactions are treated in  
11 New York ISO with the New England border?

12 MR. DesLAURIERS: Well, my understanding is there is a  
13 memorandum of understanding that we described in our  
14 report, a bilateral agreement whereby ISO New England and  
15 New York ISO do not charge the transaction rate, the export  
16 rate for flows between those two borders, both imports and  
17 exports.

18 MR. VELLONE: So that would be a qualification to your  
19 previous statement that exporters don't have --

20 MR. DesLAURIERS: Yes, yes, with the exception of the  
21 MOUs in place.

22 MR. VELLONE: Thank you.

23 MR. DesLAURIERS: You're welcome.

24 MR. SIDLOFSKY: Thanks, Mr. Vellone. Thank you, Mr.  
25 DesLauriers.

26 It is just coming up on 12:20. So what I would like  
27 to do is move Schools to after the lunch break. So we will  
28 start after lunch with panel 4.

1 Mr. Duffy, I assume you are okay with that.

2 MR. DUFFY: Yes, Mr. Sidlofsky, we are fine with that.

3 MR. SIDLOFSKY: Okay, good. So we will start with  
4 panel 4 at 1:05. See you then.

5 --- Luncheon recess taken at 12:18 p.m.

6 --- On resuming at 1:06 p.m.

7 MR. SIDLOFSKY: Now let's go on the record.

8 Good afternoon. We are back. We are going to go  
9 ahead with panel number 4, which is the IESO panel. I will  
10 just mention, we're a little bit behind in our schedule for  
11 today. At this point we're scheduled to go to 4:35. I am  
12 hoping that the panel members and Mr. Duffy and intervenor  
13 representatives are available to sit 'til 5:00, so  
14 hopefully we can get through panel 4 this afternoon. I  
15 will leave that with you. I don't need everyone to let me  
16 know right now, but hopefully we can sit a little bit  
17 longer and finish off this panel, if needed.

18 With that, let's go to Mr. Rubenstein.

19 MR. RUBENSTEIN: I don't know if Mr. Duffy wants to  
20 introduce his panel first or...

21 MR. DUFFY: Yes. Before Mr. --

22 MR. SIDLOFSKY: I'm sorry about that. I was just  
23 over-enthusiastic. Mr. Duffy, go ahead and introduce your  
24 panel.

25 MR. DUFFY: So our panel this afternoon from the IESO  
26 consists of Mr. Tom Chapman, who is the senior manager of  
27 wholesale market development; and Mr. Jason Kwok, who is  
28 the supervisor of market evolution and integration.

1           **INDEPENDENT ELECTRICITY SYSTEM OPERATOR - PANEL 4**

2           **Tom Chapman**

3           **Jason Kwok**

4           And Mr. Rubenstein, just before you begin, we weren't  
5 sleeping when the Hydro One was being asked earlier some  
6 questions around the TRCA and with respect to the  
7 undertaking.

8           So there are -- this is a topic that the IESO has  
9 discussed in the evidence, and we will be happy to take  
10 questions on it and, you know, happy to start with that, if  
11 you'd like, or you can ask questions as you go. I don't  
12 want to disrupt your flow. We would note that the topics  
13 were canvassed in response to OEB Staff IR number 35 and  
14 were also discussed in the IESO's report that was included  
15 in the submission, and at page 11 of that report it  
16 discussed the TRCA disbursement methodology.

17           So anyway, again, Mr. Rubenstein, I am happy to take  
18 the lead if that is a topic that you would like the two  
19 IESO representatives to speak about now, or if you want to  
20 ask some questions about it later, feel free, and we can  
21 take it from there.

22           MR. RUBENSTEIN: Sorry, what was the staff IR you  
23 mentioned?

24           MR. DUFFY: Staff IR number 35.

25           MR. RUBENSTEIN: So do I take from your comment -- I  
26 just want to understand. I had asked -- sorry, I had asked  
27 the Hydro One for an undertaking, and it sort of involves  
28 your client as well. So do I take it that -- what should I

1 take from your comments? You will? You won't? I can ask  
2 questions on top of that? I just want to be clear.

3 MR. DUFFY: Yes, so I think what we can do is we can  
4 explain the process you were asking about up to the stage  
5 that it gets handed off to an LDC, and they're happy to do  
6 that right now for you here, and then if you have further  
7 questions or you want us to take an undertaking based on  
8 that, we would be open to considering that.

9 MR. RUBENSTEIN: Well, I guess the intent would be  
10 through the Hydro One undertaking that you would be part of  
11 that, and you would obviously do your part to hand off, and  
12 then so it is in one place and everyone can see from top to  
13 bottom, and we don't need to spend time talking about it  
14 through here. I think that would be the most efficient  
15 way.

16 MR. DUFFY: In that case we will work with Hydro One  
17 and work on a response to that for you.

18 **EXAMINATION BY MR. RUBENSTEIN:**

19 MR. RUBENSTEIN: Thank you very much.

20 Panel, I have a number of questions and a number of  
21 different IRs, and I will apologize upfront. We're going  
22 to sort of jump around different topics as we go through  
23 the IRs.

24 Can we start with Staff 34B. So in Staff 34B the IESO  
25 is asked:

26 "In the IESO's view, is the purpose of ICP the  
27 same as the purpose for ETS? Please explain  
28 whether and how ETS and ICP addresses the same or



1 different issues."

2 And in your response at the beginning you had  
3 mentioned:

4 "Both mechanisms are intended to offset inter-tie  
5 infrastructure costs to Ontario customers."

6 I just want to focus in on that sentence.

7 What is the basis for the IESO's position that ICP is  
8 intended to offset inter-tie infrastructure costs to  
9 Ontario customers?

10 MR. CHAPMAN: Good afternoon, Mr. Rubenstein. I will  
11 make a start and my colleague, Jason Kwok, can jump in.

12 Our understanding, you know, both of these -- both of  
13 these components have been in place since market opening,  
14 and we had the ETS and we've had ICP.

15 In our opinion, the ICP is collected from traders  
16 transacting energy out of Ontario and is returned to  
17 ratepayers, who ultimately pay for the network  
18 infrastructure costs.

19 And I believe that was the accepted understanding at  
20 the time, and it's persisted since it was introduced at  
21 market opening.

22 MR. RUBENSTEIN: So that is what I wanted to get at,  
23 because the comment talks about what -- as I read it, at  
24 least, that in your view that was the intention of the --  
25 the intended purpose of ICP. I would like you to -- you  
26 mentioned how that was, your view, at market opening, but I  
27 -- is there a document? Some decision of the OEB or some  
28 IESO document that -- or what was called at that time, that

1 sets this out? I am not aware of it, but --

2 MR. CHAPMAN: I am not aware. At the time it was the  
3 markets committee that was responsible for designing the  
4 wholesale market, and there is some information but not  
5 very much information from back in the day when they were  
6 doing their work in the early 2000s.

7 I mean, according to the textbook, you know, one way  
8 of using these funds will be to reduce congestion in the  
9 future. And so one option will be to use these congestion  
10 rents that are collected and use them to fund additional  
11 investments to reduce congestion, because ultimately  
12 congestion can be an inefficiency as part of the wholesale  
13 market design.

14 However, there is a countervailing argument that  
15 should not be so narrowly focused on assuming that these  
16 revenues that are collected should be purposefully reducing  
17 congestion alone.

18 We have a very effective way of returning those to  
19 ratepayers who paid for these costs, and so the idea was  
20 that they would be returned directly to the consumers who  
21 are paying for these infrastructure costs and wouldn't be  
22 purposed for additional infrastructure investments that  
23 might reduce congestion in the future.

24 MR. RUBENSTEIN: My, I guess, more specific question,  
25 you are unable to point me to some document, or at least  
26 when you prepared this answer there was not some document  
27 that you had in mind that said, somewhere, someone said  
28 this was the intention of inter-tie congestion prices?

1 MR. CHAPMAN: I am not aware of a document that says  
2 that explicitly. I am just relaying my understanding of  
3 how we came to use this approach.

4 MR. RUBENSTEIN: Okay. Can we go to Staff 41. So in  
5 Staff 41E you were asked to describe methods used to manage  
6 inter-tie congestion in the markets which Ontario does its  
7 electricity trading, and you provide a response.

8 And so the first comment I would make is, you provide  
9 a link to a Brattle report? Do you see that there? Maybe  
10 it is just me, but I get a broken -- the link -- there is  
11 no document. Maybe -- that document appears to sort of get  
12 an error message when I put it in my browser. So can you  
13 undertake to check and correct that or file the actual  
14 report as an undertaking?

15 MR. CHAPMAN: Absolutely.

16 MR. SIDLOFSKY: Sorry. We will make that JT1.6.

17 **UNDERTAKING NO. JT1.6: TO FILE OR PROVIDE A LINK TO**  
18 **THE BRATTLE REPORT.**

19 MR. RUBENSTEIN: Thanks. Now, in the response it  
20 talks about how you're talking about -- you say:

21 "Jurisdictions use their own methodology to  
22 manage transmission allocation and, by extension,  
23 inter-tie congestion. Approaches range from a  
24 market-based willingness to pay approach similar  
25 to Ontario, to first-come, first-served methods  
26 similar to PJM to a single trader monopoly  
27 approach similar to Quebec."

28 When you are referencing market based willingness to

1 pay approaches similar to Ontario, are you referring to --  
2 I am not sure if you were here earlier today listening  
3 in -- what CRA talked about, how in other jurisdictions  
4 with LMP the impact and effect of congestion is built into  
5 the LMP pricing?

6 MR. CHAPMAN: Yes, that's correct.

7 MR. RUBENSTEIN: Okay, thank you very much.

8 Can we go to Staff 44. So you were asked in part B  
9 that imports are subject to congestion rents and explain  
10 how these rents are collected. Do you see that?

11 MR. CHAPMAN: Hmm-hmm.

12 MR. RUBENSTEIN: You talk about imports are subject to  
13 ICP. I just want to understand who -- I just want to  
14 understand more about imports and inter-tie congestion  
15 pricing.

16 Can you tell me who is importing electricity into  
17 Ontario, sort of at a general level? Not names, but what  
18 are we talking about here? Are we talking -- can you...

19 MR. CHAPMAN: Yes. So Ontario has inter-ties with  
20 five neighbouring jurisdictions, and we transact both  
21 imports and exports with all of those jurisdictions, and it  
22 is typically the same entities that are both exporting and  
23 importing.

24 I believe we've provided information on those flows,  
25 particularly on the export side where we talk about who  
26 we're exporting to and the volumes of electricity. But  
27 just as we're exporting, we also import from those  
28 jurisdictions and it is typically the same entities

1 transacting both imports and exports.

2 MR. RUBENSTEIN: Are most of the imports wheeled out,  
3 part of wheeling transactions or not?

4 MR. CHAPMAN: We do have wheeled through transactions,  
5 but they comprise a relatively small share of the total  
6 volume.

7 I think there might be information on that in the  
8 appendix information we provided, I think it is table 2 --  
9 I'm sorry export volumes considering wheel throughs? And I  
10 guess you have to do some math to subtract the final column  
11 from the second column and you can figure out what the  
12 wheel throughs are, but it is a fraction of the total  
13 volumes.

14 MR. RUBENSTEIN: All right. Can we turn to Staff 47.  
15 So in part B, you were asked if the ETS is reduced to zero  
16 dollars per megawatt-hour, what assurances are there that  
17 the ICP would be at a minimum of 1.85 per megawatt-hour for  
18 every hour at every inter-tie in Ontario.

19 You provide a lengthy response, but I don't think you  
20 actually answered the question.

21 Am I correct that you cannot guarantee that the -- you  
22 cannot make that guarantee?

23 MR. CHAPMAN: So the nature of the market -- you know,  
24 transactions flow on an hour basis, depending upon market  
25 conditions that are prevailing at the time. So it is quite  
26 dynamic and it is quite hard to predict with certainty, you  
27 know, hour, week over week, day over day, year over year.

28 We can do general directional indications, but it is

1 hard to say categorically yes or no with that specific  
2 question.

3 It also depends -- it also depends which inter-ties we  
4 are talking about and whether they're congested or  
5 uncongested.

6 MR. RUBENSTEIN: So isn't the answer no, and then the  
7 simple reason is because there are periods when there is no  
8 congestion?

9 And if the ETS is zero and there is no congestion, I  
10 mean, the ICP would be zero. Correct?

11 MR. CHAPMAN: Correct.

12 MR. RUBENSTEIN: Okay. Can we go to SEC 3? So in  
13 part A, we asked you to -- and just for background here,  
14 this is with respect to a table you provided, or a sub-  
15 component of a table you provided that looks at avoided  
16 system costs because of exports in your evidence.

17 We asked in part A to please provide a detailed  
18 explanation of the avoided system cost calculation in  
19 table 1, including all inputs, calculations and assumptions  
20 made.

21 Your response was essentially it was completed through  
22 an internal analysis that considered the market without  
23 exports, and essentially that you can't really provide any  
24 more information because it contains confidential market  
25 participant information.

26 Is that a fair sort of synopsis of the response?

27 MR. CHAPMAN: I believe it's a fair synopsis of the  
28 response and I am happy to provide a bit more context, if

1 it is helpful.

2 MR. RUBENSTEIN: I guess that is the question. I  
3 understand and I am not seeking -- first of all, I'm not  
4 seeking if there is a back engine here and there is market  
5 data. But I would like some more information about exactly  
6 what the model looks at and how it is run, sort of in a  
7 broader sense.

8 MR. CHAPMAN: Yes, that is fair. So the analysis that  
9 was undertaken, it looks -- it calculated the foregone  
10 energy payments as a result of increased curtailments due  
11 to the loss of exports.

12 So what we did over the time frame in table 1, we  
13 removed the export volumes and then we used an actual  
14 supply stack from the Ontario market to construct  
15 replacement offers, and this is where -- this is where it  
16 makes it difficult for us to share that information,  
17 because we use actual data provided by, you know,  
18 generators in Ontario, confidential offer data to determine  
19 those replacement offers.

20 And then we re-simulated the markets, not an hour-by-  
21 hour simulation, but we re-simulated the market to  
22 calculate what the curtailment volumes would be from  
23 different resources based on those replacement offers.

24 And we estimated that between 12 to 14 terawatt-hours  
25 of curtailments would take place. The next step in the  
26 analysis was to take out those volumes and multiply them by  
27 the regulated rates or the contractual rates depending upon  
28 the resource, and that's how we came up with the dollar

1 costs associated with the avoided system costs.

2 MR. RUBENSTEIN: Okay. So when you say you didn't do  
3 it on an hour-by-hour basis, you didn't rerun history  
4 essentially, to determine -- what did you do? What was  
5 essentially the proxy?

6 MR. CHAPMAN: It was a spreadsheet model. It wasn't a  
7 -- we have other simulation tools, but that wasn't used in  
8 this case. It was replacing the export volumes with these  
9 replacement offers to determine the scale of the  
10 curtailments by resource types, nuclear, hydro-electric and  
11 wind generation. And using that information, together with  
12 what those resources are paid on a foregone energy basis  
13 under the regulated rates or the contractual rates, we're  
14 able to compile the dollars associated -- shown in that  
15 table.

16 MR. RUBENSTEIN: I understand the dollars part. I am  
17 more interested really in the volumes part because you just  
18 said you didn't do to on an hour-by-hour basis, you didn't  
19 go back and say in 2018, day whatever hour, whatever,  
20 months whatever this is what would have happened without  
21 the exports.

22 So to come up with the volumes, I am not sure what you  
23 did exactly.

24 MR. CHAPMAN: So the replacement offers associated  
25 with these resources are relatively static. It is not the  
26 same as a natural gas plant where the offer may vary hour  
27 to hour, day-to-day, depending upon natural gas  
28 transportation costs.



1           The resources we're talking about have, you know, the  
2 nuclear has its uranium costs which are relatively stable.  
3 The hydro has its water rental charges, which are fixed.  
4 And obviously the wind has a zero offer.

5           So we were able to use those offers to determine the  
6 level of curtailments.

7           MR. RUBENSTEIN: Now, in the footnote which we've  
8 cited in the question, you say:

9                   "It is calculated based on avoided nuclear and  
10                   renewable resource curtailment."

11          So I presume wind, you're talking about the latter.

12          MR. CHAPMAN: Yes.

13          MR. RUBENSTEIN: Now, in the Power Advisory analysis,  
14 they also looked at what would be the impact of the  
15 changing of the export fee also on hydro spill.

16          And I noticed in your avoided cost calculation you  
17 didn't talk -- you did not include hydro spill and avoided  
18 costs from that.

19          MR. CHAPMAN: Yes. We did. We did include the hydro.

20          MR. RUBENSTEIN: Okay. So that would be -- and you  
21 would sort of bucket that under, I guess, renewable  
22 resource for the purposes of --

23          MR. CHAPMAN: It would be under the regulated  
24 resource, because it would be -- the bulk of the hydro that  
25 we spilled would be OPG's hydroelectric assets.

26          MR. RUBENSTEIN: Well, sorry, the footnote in the  
27 evidence says, to avoided system costs, it says:

28                   "Based on avoided nuclear and renewable resource

1           curtailment."

2           MR. CHAPMAN: Right. Yes.

3           MR. RUBENSTEIN: So when you -- nuclear to nuclear, I  
4 get that. And is hydro -- would that be -- you are  
5 considering that part of the, what you would categorize as  
6 renewable resource?

7           MR. CHAPMAN: Yes.

8           MR. RUBENSTEIN: Okay, thank you. In part C --

9           MR. DUFFY: If I may, there was an IR and a table that  
10 broke it down, which I think is what Mr. Chapman is talking  
11 about, in our spreadsheet, that broke it down by regulated  
12 and contracted resources. So I think that is what they --  
13 the two of you are talking about slightly different things.

14          MR. RUBENSTEIN: Thank you very much.

15          Can I ask, in part C (i) we asked you:

16                 "Please confirm that these avoided curtailments  
17                 would have primarily occurred during times of  
18                 surplus baseload generation."

19          And your response, you explain what SBG is, but you  
20 don't actually answer the question.

21          So would I be correct to say that the avoided  
22 curtailments that are the avoided system costs in your  
23 calculation primarily occur during times of SBG?

24          MR. CHAPMAN: They certainly do occur during times of  
25 SBG, but they also occur outside of times of SBG,  
26 depending, again, on prevailing market conditions.

27          MR. RUBENSTEIN: Can we say primarily? I think we --  
28 I recognize it is both. I am trying to understand where

1 the -- are we able to -- can we say primarily, or not?

2 MR. CHAPMAN: I'm not sure I can say primarily right  
3 now. I would probably have to go back and look at the  
4 tables we provided on SBG during the time period and  
5 reconcile that with the degree of curtailments from the  
6 different types of resources. I don't have that at my  
7 fingertips to show --

8 MR. RUBENSTEIN: Okay. We may come back to this. I  
9 have another question. I can ask you for an undertaking,  
10 and that might answer it, but we will come back to that.

11 Can I ask you now to move to SEC 4. So in part (a),  
12 the response to part A, the IESO says:

13 "The IESO is of the view that a lower ETS rate  
14 would be offset by higher congestion rent  
15 collected, as well as increased export volumes,  
16 which would increase the total ETS collected and  
17 increase uplift costs recovered from exporters."

18 Do you see that?

19 MR. CHAPMAN: I see it.

20 MR. RUBENSTEIN: Is it the IESO's view that a lower  
21 ETS would partially offset -- would be partially offset by  
22 the things you list? Or be fully offset by the things that  
23 you are listing here? And just to park it, I understand  
24 the avoided system costs and that aspect. But just as  
25 we're talking about the aspects here...

26 MR. CHAPMAN: Again, it will depend on how congested  
27 the inter-ties are. If the inter-ties are predominantly  
28 congested, then there is almost a one-for-one relationship.

1 So you would just see an increase in the ICP as a result of  
2 a reduced ETS.

3 If the inter-ties are uncongested, it becomes more  
4 complicated, because there's a more dynamic factor comes  
5 into play, which is how much does that change export  
6 volumes, and then you've got, well, if export volumes go up  
7 and you have a lower ETS, you might collect more. If  
8 export volumes stay the same and you have a lower ETS, you  
9 would collect less.

10 So unfortunately the second part is, it depends.

11 MR. RUBENSTEIN: Okay. So I take it as your answer  
12 is, there will be an offset, but depending on the  
13 circumstances you can't say if there will be a partial or  
14 fully offset?

15 MR. CHAPMAN: Right.

16 MR. RUBENSTEIN: Okay, that's fair. Can I ask you to  
17 go to Staff 1, attachment 1, this is the Excel spreadsheet.  
18 I have a couple of questions with regard to some of the  
19 tables here.

20 And if we can go down to table 13 to 16. And I just  
21 want to understand. So here you're providing revenues,  
22 volumes, number of ICP, inter-tie depending on -- you were  
23 asked about some sort of scenarios about ICP pricing based  
24 on those jurisdictions over the period of time.

25 I just want to understand. Is this ICP revenue and  
26 volumes with respect to exports only? Or is it also  
27 exports and imports?

28 MR. CHAPMAN: Just exports.

1 MR. RUBENSTEIN: Okay, thank you very much. Can I ask  
2 you why in table 16 you are providing revenue, volume,  
3 number of hours of ICP -- sorry, ICP at inter-tie, whether  
4 ICP is zero -- greater than zero dollars. So I take it as  
5 there is inter-tie congestion pricing?

6 MR. CHAPMAN: That's correct. Inter-tie congestion,  
7 yes --

8 MR. RUBENSTEIN: Yes. There is congestion and thus  
9 there is -- yes, okay.

10 I was unclear then -- if we can go up to table 8. You  
11 provide export congestion rent by the -- by the same three  
12 jurisdictions as you provided in table 16, and I would have  
13 assumed the congestion rent here would be the same as the  
14 ICP revenue in table 16, and they're not the same, and I  
15 was wondering if you could tell me why, and if you need to  
16 do that by way of undertaking, that's fine.

17 MR. CHAPMAN: Can you give us a minute?

18 MR. RUBENSTEIN: Sure.

19 MR. CHAPMAN: Mr. Rubenstein --

20 MR. RUBENSTEIN: Yes.

21 MR. CHAPMAN: -- rather than try and do some mental  
22 gymnastics on the fly, I would be more comfortable if we  
23 took that away.

24 MR. RUBENSTEIN: Thank you very much. Insofar as  
25 there is an error in one table, if you could tell us which  
26 is the right table.

27 MR. CHAPMAN: Yeah, okay.

28 MR. SIDLOFSKY: And sorry, just to help our reporter,

1 could you just concisely describe the undertaking on that?

2 MR. RUBENSTEIN: Sure. It is to reconcile table 16  
3 and table 8 in OEB, the response to OEB IR 1, attachment 1.

4 MR. SIDLOFSKY: We will make that JT1.7.

5 **UNDERTAKING NO. JT1.7: IESO TO RECONCILE TABLE 16 AND**  
6 **TABLE 8 IN OEB, THE RESPONSE TO OEB IR 1,**  
7 **ATTACHMENT 1.**

8 MR. RUBENSTEIN: Can we go down to table 23. So as I  
9 understand what table 23 shows, it shows surplus base load  
10 generation after exports are included within the  
11 calculation, right.

12 So there is a surplus base generation after you take  
13 into account exports, correct? It is essentially actual  
14 surplus base load generation.

15 MR. CHAPMAN: Yes, that's correct.

16 MR. RUBENSTEIN: As I understand table 24 where you  
17 are providing a forecast is because you don't forecast  
18 exports, this would essentially be before exports.  
19 Correct?

20 MR. CHAPMAN: That is correct.

21 MR. RUBENSTEIN: Are you able to provide a version of  
22 table 23 if you remove exports?

23 MR. CHAPMAN: Again, I think we're going to have to  
24 take that one away.

25 MR. RUBENSTEIN: For sure. I wasn't expecting to do  
26 that on the spot.

27 MR. CHAPMAN: No.

28 [Laughter]

1 MR. SIDLOFSKY: We will make that JT1.8.

2 **UNDERTAKING NO. JT1.8: IESO TO LOOK TO PROVIDE A**  
3 **VERSION OF TABLE 23 WITHOUT EXPORTS, IF IT CAN.**

4 Mr. DUFFY: Just so we have it, the undertaking is the  
5 IESO will look to provide a version of table 23 without  
6 exports.

7 MR. RUBENSTEIN: To do so if it can.

8 MR. DUFFY: And to do so if it can, okay.

9 MR. RUBENSTEIN: The idea was so we have a  
10 comparability, since you're -- you don't forecast them, we  
11 can't do it the other way. So maybe we can do it this way,  
12 okay.

13 Can I ask you to go to SEC 7. So here we were asking  
14 the IESO's views looking back at the CRA report that was  
15 produced in the 2012 CRA report that was provided in EB-  
16 2012-0031. Do you see that, those questions?

17 MR. CHAPMAN: Hmm-hmm.

18 MR. RUBENSTEIN: And in part C, we asked you for the  
19 ISEO's view on change in supply -- views on the change in  
20 supply conditions over the next ten years as compared to  
21 those considered in the 2012 CRA study.

22 The response essentially points us to the most recent  
23 APO. Do you see that?

24 MR. CHAPMAN: I do.

25 MR. RUBENSTEIN: It is asking for the IESO's views. I  
26 am summarizing. Not sort -- you know, a reference report.  
27 We're looking for your views on how the next ten years and  
28 the supply conditions are different compared to what the

1 supply conditions are forecast and were the basis of the  
2 2012 CRA report.

3 MR. DUFFY: Mr. Rubenstein, I am not sure that is a  
4 question we are willing to answer. We weren't the authors  
5 of that report, but we can take it away and we will take it  
6 under advisement, if that will assist you.

7 MR. RUBENSTEIN: Yes. I am looking for -- you can  
8 read the report and come to your views, but the idea is I  
9 would like -- so we're not debating the difference in, you  
10 know, I can look at the report. You can look at the report  
11 but we may not come to the same thing. I would like to  
12 understand what your views of the differences are, but that  
13 is fine, Mr. Duffy.

14 MR. DUFFY: We're not particularly certain if there is  
15 any real relevance or usefulness in that analysis, but we  
16 will take it away and give you our position.

17 MR. RUBENSTEIN: I can provide you -- to answer that  
18 point, there's a number of interrogatories it references  
19 some analysis in some of the underpinnings, the IESO talks  
20 about things that were in that CRA report. So I am trying  
21 to understand while things may be different in the future,  
22 what is your view on what that impact would be on some of  
23 those conclusions.

24 MR. DUFFY: If you wish to ask questions about the  
25 future in the APO, we're here to answer those. Anyway, as  
26 I say, we will take it away and give it consideration.

27 MR. SIDLOFSKY: I will give that a number, JT1.9.

28 **UNDERTAKING NO. JT1.9: IESO TO RESPOND TO MR.**



1           **RUBENSTEIN'S QUESTION ABOUT CHANGE IN SUPPLY**  
2           **CONDITIONS OVER THE NEXT 10 YEARS AS COMPARED TO THOSE**  
3           **CONSIDERED IN THE 2012 CRA STUDY.**

4           MR. CHAPMAN: I will just highlight these planning  
5 documents, they're not forecasts of market conditions. And  
6 the useful exercise is to identify what the challenges and  
7 needs are in the future, right. So we are identifying the  
8 capacity need in the latter part of the 2020s and then how  
9 we address that need will actually be one of the factors  
10 that influences actual market conditions.

11           So if we address the capacity need with a pure peaking  
12 resource, that would have one set of impacts. If we  
13 address that need with a base load asset, it might have  
14 very different market outcomes.

15           So the planning document, the APO highlights some of  
16 those future challenges, but it's really to inform decision  
17 making as to how we go about addressing them and those  
18 actual decisions will be a big factor in influencing actual  
19 market outcomes, such as the volume of exports or imports,  
20 market prices, the level of ICP.

21           They're not necessarily going to give you many answers  
22 in terms of those types of metrics -- if that makes sense.

23           MR. RUBENSTEIN: I mean the 2012 report looked at, I  
24 think, the three years -- sort of looking at a three-year  
25 period on a going-forward basis and doing a similar thing,  
26 to be honest.

27           So that's for the -- the same caveats you're telling  
28 me about what the APO does -- in my view at least and you

1 can take a look at it -- is similar to the CRA, some of the  
2 same things as the CRA.

3 Okay. Anyway, moving on. I think we got -- did we  
4 get, Mr. Sidlofsky -- sorry, did we get a number for that?

5 MR. SIDLOFSKY: I did, JT1.9.

6 MR. RUBENSTEIN: Sorry, I just wanted to make sure I  
7 didn't miss that.

8 MR. SIDLOFSKY: I don't think there was a further  
9 undertaking after that.

10 MR. RUBENSTEIN: Okay.

11 MR. SIDLOFSKY: So that is JT1.9, sorry.

12 MR. RUBENSTEIN: That's fine. Can we go to SEC 8? So  
13 we had asked essentially what's the impact of MRP, and  
14 moving to a single scheduled market with some aspect of LMP  
15 will impact ICP export volumes, prices, transmission rates,  
16 essentially all of the stuff we're talking about in this  
17 proceeding.

18 And there was a discussion, I am not sure if you were  
19 with CRA earlier on about LMP in other jurisdictions and  
20 how congestion is really -- that's where congestion -- they  
21 don't have inter-tie congestion pricing. It plays out in  
22 the context of their LMP.

23 I just want to -- as the IESO moves to a version of  
24 LMP, am I correct that because of the IESO's, I guess,  
25 design of the LMP and the single scheduled market LMP, that  
26 won't happen? The congestion will still -- inter-tie  
27 congestion will still materialize in the context of inter-  
28 tie congestion pricing?

1           MR. CHAPMAN: Yes, that's correct. So there will be a  
2 difference that we will collect ICP in a day-ahead time  
3 frame, under a real-time time frame, whereas today it is  
4 just collected in the real time, but the ICP will be an  
5 adder to the LMP to calculate the inter-ties' price on the  
6 trade it will pay in order to export power.

7           MR. RUBENSTEIN: Thank you very much. Can I ask you  
8 about SEC 13? So we had asked in this interrogatory about  
9 the Lake Erie connector project and the background is, as I  
10 understand, we reference a letter to the minister, my  
11 understanding is there was a directive with respect to  
12 negotiations, which I understand is a project that would  
13 have brought up to 1,000 megawatts of additional inter-tie  
14 capacity through a line between Ontario and PGM.

15           Before I get into these questions, I have -- from last  
16 night to tonight, the websites have changed and I believe  
17 on the ITC website it says, and I quote:

18                       "Development activities and commercial  
19                       negotiations on the Lake Erie connector have been  
20                       suspended at this time."

21           And then it sort of gives a contact information.

22           So let me just stop there before I get into any  
23 questions that may now become moot.

24           Do I take it there has now been a change, as I  
25 understand, as of the 31st of March in the directive you  
26 were supposed to enter into, the IESO was directed if  
27 certain conditions were met to negotiate an agreement by  
28 mid-August.

1 Do I take it that there is now a -- that is not  
2 happening? There's been a change?

3 MR. CHAPMAN: So it is breaking news, Mr. Rubenstein,  
4 and I am as up-to-date as you are, having read it this  
5 morning, and I -- we haven't had any internal meetings at  
6 this point to determine next steps.

7 MR. RUBENSTEIN: Okay. I don't have a bunch of  
8 detailed questions for a project that may not be going on.  
9 I just, I thought I was crazy when I went to the web page  
10 this morning and it looked very different. So --

11 MR. CHAPMAN: I mean, in general, I mean, if you have  
12 questions I'm happy to answer them. We would hope to treat  
13 the inter-tie as consistently as we would with any other  
14 inter-tie.

15 MR. RUBENSTEIN: Well, okay. So let me just ask this,  
16 sort of, and then if I have an undertaking on some more  
17 detailed question.

18 Am I -- let's assume the project is constructed or a  
19 different project gets constructed. Am I correct that  
20 exports on that line would still pay under the existing  
21 system ETS? Right? And export that uses -- that goes to  
22 PJM through this line would still pay the export  
23 transmission service tariff -- rate? Sorry.

24 MR. CHAPMAN: At this moment in time I don't think  
25 that decision has been made one way or the other.

26 MR. RUBENSTEIN: Well, my understanding is just under  
27 the definitions under the market rules it would still be an  
28 export. The status quo -- let me put it this way -- would

1 be that it would be an export. Correct?

2 MR. CHAPMAN: Correct.

3 MR. RUBENSTEIN: It would have to pay the ETS. Am I  
4 -- was that not correct?

5 MR. CHAPMAN: That's correct.

6 MR. RUBENSTEIN: Okay. So the question I had, and it  
7 gets to some of the issues here, is this is a project that  
8 would add a significant possible export capacity, and I am  
9 just trying to understand -- and it would be a project that  
10 would not be owned by Hydro One. So it would not be  
11 included in the costs for the ETS.

12 I am just trying to understand, what are the -- how  
13 would those costs be potentially recovered? How would  
14 exporters pay that amount? That -- those are the issues.  
15 That's why I sort of paused if this project is -- this is  
16 not happening.

17 MR. DUFFY: Mr. Rubenstein, what I would suggest is  
18 perhaps we can take your question that you have just asked  
19 away as an undertaking, given the recent breaking news  
20 about that. As Mr. Chapman has said, they haven't had a  
21 chance to talk about that internally, and we can determine  
22 -- get you an answer or determine if it needs to be  
23 answered as we move forward, if that would be satisfactory  
24 to you. I think that is probably the best alternative.

25 MR. RUBENSTEIN: That's fine.

26 MR. DUFFY: Okay.

27 MR. SIDLOFSKY: Make that JT1.10.

28 **UNDERTAKING NO. JT1.10: IESO TO ADVISE FIRST OF ALL**

1           WHAT EXACTLY THE IESO WOULD BE CONTRACTING FOR WITH  
2           ERIE LAKE AND HOW THOSE COSTS WOULD BE RECOVERED AND  
3           HOW THOSE COSTS WOULD BE INCORPORATED AS THEY ARE  
4           EXPORT-DRIVEN, INSOFAR AS IT IS GOING TO BE AN EXPORT-  
5           DRIVEN COMPONENT TO THE PROJECT, WHO THOSE COSTS WOULD  
6           BE RECOVERED FROM AND HOW EXPORTERS WOULD PAY FOR  
7           THEIR SHARE OF THOSE COSTS, IF AT ALL, AND TO ADVISE  
8           OF THE VARIOUS OPTIONS OR WHAT IF IT'S JUST AT A HIGH  
9           LEVEL LOOK LIKE, TO UNDERSTAND IF THIS PROJECT IS IN  
10          PLACE AND THERE IS EXPORT COSTS WHO IS PAYING FOR IT  
11          AND HOW THIS WOULD WORK OUT.

12          MR. RUBENSTEIN: So let me just make sure we know what  
13          the questions I want answered are --

14          MR. CHAPMAN: Yes, please.

15          MR. RUBENSTEIN: -- so let me -- and I understand the  
16          caveat.

17          So I want to understand -- so the undertaking with the  
18          caveat that Mr. Duffy said about the late-breaking news and  
19          the relevance that this becomes.

20          But it is understanding first of all what exactly the  
21          IESO would be contracting for with ICP and how those costs  
22          would be recovered and how those costs would be  
23          incorporated as they are export-driven, insofar as it is a  
24          primarily -- or it's going to be an export-driven component  
25          to the project, how those -- who those costs would be  
26          recovered from and who those costs would be -- and how  
27          exporters would pay for their share of those costs, if at  
28          all.

1           And the added part is, you know, we had asked somewhat  
2 of a similar question, and the answer was sort of, as I  
3 read your response, is, you know, it is a later -- you  
4 know, I'm -- it essentially says in the event if a cost  
5 recovery proceeding is initiated, a review of cost recovery  
6 methodology undertaken in this proceeding -- I guess my  
7 question would be, what are the various options or what if  
8 it's just at a high level look like, just so we can  
9 understand if this project is in place and there is export  
10 costs who is paying for it and how this would work out.

11           MR. DUFFY: Understood. So we will -- as I said, we  
12 will take that away and we will evaluate what the status  
13 is. I can tell you the response in the interrogatory was  
14 driven by the fact that there is a regime set out in the  
15 act, and that is what that was referring to, but we will  
16 take it back, given the status at the moment, and get back  
17 to you on that.

18           UNKNOWN SPEAKER: Mr. Duffy, as you take that away, to  
19 avoid requiring the panel, the adjudicative panel, to look  
20 up the news that everyone is referring to here, can you  
21 please append that to your response so we can get it on the  
22 evidence?

23           MR. DUFFY: You can -- if you look up for -- this is  
24 public disclosure -- you will find it, and we're happy to  
25 make a reference to that.

26           MR. RUBENSTEIN: I mean, you're probably --

27           UNKNOWN SPEAKER: I don't know whether the panel  
28 have --

1 MR. RUBENSTEIN: I just became aware of this as I just  
2 went to refresh the website, so I can gather some  
3 information from last night and get all the different --  
4 okay.

5 Can I ask -- sorry, Mr. Sidlofsky. I am not sure if  
6 we gave that a number.

7 MR. SIDLOFSKY: Sorry, my understanding was that that  
8 was all part of Undertaking JT1.10.

9 MR. DUFFY: That was my understanding as well.

10 MR. RUBENSTEIN: Can I ask about Staff -- if we can go  
11 to Staff 1G. Sorry, just one second. I think I may have  
12 the wrong -- no, sorry.

13 In part G of this response, you provide a list of  
14 what's included in the uplift charge. Do you see that?

15 MR. CHAPMAN: Hmm-hmm.

16 MR. RUBENSTEIN: Are any of the costs that are  
17 included in -- that are recovered through uplift charges  
18 directly attributable to export volumes? And by that I  
19 mean an increase in exports means some increase in some of  
20 these costs.

21 MR. CHAPMAN: I will let my colleague, Jason, take the  
22 lead on this one.

23 MR. KWOK: Hi, Mr. Rubenstein. So the question I  
24 heard was, do -- and are you able to tie, like, 1 megawatt  
25 of export to -- directly to increasing any one of these  
26 categories of costs A to G listed here. And that is not  
27 possible.

28 When we run the optimization of our market tool, we



1 look at the total demand that is needed and the total  
2 demand for domestic needs and exporters and in funding, the  
3 most optimal solution would be to figure out how to solve  
4 the market that way. So it is not directly -- we cannot  
5 directly associate one export transaction with these  
6 charges.

7 MR. RUBENSTEIN: So I just want to make sure I  
8 understand that. And to be clear, what I am not asking you  
9 to do is, 1 megawatt-hour of exports will equal X amount of  
10 costs somewhere and, you know, you can pinpoint.

11 But at a directional level, would an increase in  
12 exports increase any of these costs and, vice versa, a  
13 decrease in exports would decrease any of these costs?

14 MR. KWOK: So exports can contribute to the total  
15 costs of -- you know, these uplift costs are --  
16 essentially, they're variable costs of our Independent  
17 Electricity System, and, you know, having more exports can  
18 increase or decrease the amount of uplifts that we see in  
19 the system.

20 So, you know, conversely, a decrease in exports could  
21 increase the uplifts that we see and they could  
22 theoretically decrease the uplifts, the total uplifts  
23 charged to the market.

24 MR. RUBENSTEIN: Okay. And am I correct hourly  
25 uplift, the CMS -- CMSC, or congestion management  
26 settlement credits, after MRP that that will no longer be  
27 in effect, correct? Am I -- do I have that right?

28 MR. KWOK: That's correct. We're going to be

1 making -- those numbers will be better reflected in a  
2 single market prices -- sorry, single schedule price.

3 MR. RUBENSTEIN: Are you able to provide over -- I  
4 will leave it to you to determine the time frame -- I am  
5 trying to understand of all of the A to G components of the  
6 up lift, what is the break down between those components?  
7 Which is where do you see it? Which is the largest  
8 component of the up lift charges, which is the lowest, what  
9 is the proportion?

10 I am just trying to get a sense of that are you able  
11 to provide over a period of time the make up broken down of  
12 those categories?

13 MR. KWOK: Sure. These up lifts are hourly charges.  
14 So they do fluctuate.

15 I think we note here at line 27 that we do publish  
16 this report on a monthly basis, which provides a breakdown  
17 of these charges on a monthly basis, and that information  
18 is available on our website.

19 MR. RUBENSTEIN: And is it broken by those categories?

20 MR. KWOK: Yes. The month -- so all of the hourly  
21 uplifts CMSC for the month of May would be summarized in  
22 the May monthly market report. So we would have the  
23 breakdown in that monthly market report that we refer to  
24 here.

25 Sorry, if you scroll down a little bit --

26 MR. RUBENSTEIN: I have it on my screen and --

27 MR. KWOK: There is the link to the report. So, yes.  
28 And we update this report monthly and historical reports

1 are also available on the website.

2 MR. RUBENSTEIN: I will pause there and if later on,  
3 if necessary, I will come back or ask someone else to come  
4 back and ask for an undertaking on that.

5 Can I ask you now about the Power Advisory report? I  
6 assume you have had a chance to look through the Power  
7 Advisory report?

8 MR. KWOK: Generally, yes, we have reviewed all of the  
9 information that, you know, as part of the file, yes.

10 MR. RUBENSTEIN: Can I ask, can we pull up the Power  
11 Advisory report, if that is possible. Is that available?  
12 If we can go to page 42 and 43. So if we go down to  
13 table 3 and just look at that table, just using this as a  
14 base.

15 It is sort of the high level, as I understand about  
16 the Power Advisory report is attempting to do among other  
17 things is trying to calculate the impact of an ETS of zero  
18 and an ETS at the highest range as proposed in the Elenchus  
19 property, the 6.54.

20 I would like to understand -- I want to walk through  
21 each of the various impacts. I would like to know if in  
22 your review of the Power Advisory report, interrogatories,  
23 if you have a view on their methodology and if you think it  
24 is sound or if you think that there are -- if you agree  
25 with their approach, understanding the limitations that  
26 they had based on the information.

27 So the first is, if we go to G, this is the Ontario  
28 Ratepayer Impact for Curtailed Wind Supply.

1 Do you have a comment on that, how they have made  
2 those calculations in the report, the methodology they have  
3 used?

4 MR. KWOK: I haven't reviewed the document in  
5 sufficient detail to be able to, you know, advocate whether  
6 or not this is the right number.

7 MR. RUBENSTEIN: Would you be, by way of undertaking,  
8 be able to provide the IESO's view on the methodology in  
9 the report and if there is something that -- recognizing  
10 the limitations that they have, if there is an area that  
11 you have something that you think that is something --  
12 underlying that you also have information yourself that  
13 there is an issue with the methodology, or let me say a  
14 substantial issue with the methodology, a material  
15 difference in opinion of how they did it? Or vice versa,  
16 if you think it did a sound methodology. I think that  
17 would be of interest to parties and the Board.

18 MR. CHAPMAN: I think we have indicated that we  
19 directionally agree with the analysis and the conclusions  
20 that Power Advisory undertook.

21 As Jason noted, we haven't done a detailed in-depth  
22 review with Power Advisory to understand all of the moving  
23 parts. I would say based on our read through that, as I  
24 said, directionally we agree with the main findings.

25 I think from the IESO's perspective, we have a better  
26 sense of some of the operational considerations and costs  
27 associated with curtailments and, you know, particularly  
28 sort of the avoided costs.

1           And I think if anything, the analysis probably under  
2 estimates some of the potential consequences, particularly  
3 of a higher ETS.

4           MR. RUBENSTEIN: All right. So I mean I had a  
5 proposal for an undertaking. I saw Mr. Duffy jumped on the  
6 screen.

7           MR. DUFFY: I was going to say, Mr. Rubenstein, we're  
8 happy and Mr. Chapman provided it as general commentary. I  
9 think we're reluctant to take an undertaking to go through  
10 specific lines.

11           Like we haven't -- as Mr. Kwok said, we haven't done  
12 that and I don't know that we -- I can tell you that is not  
13 a task that we would have the time or inclination to be  
14 doing at this stage. But, you know, certainly happy as Mr.  
15 Chapman has done for you to ask questions about kind of  
16 general views on the report.

17           I just didn't want it to be as if we were going to  
18 undertake to go through every element it and categorize,  
19 right, where we agree and disagree. That is not something  
20 we will do. We wouldn't have the time available to do it.

21           MR. RUBENSTEIN: All right. Well, I will leave it at  
22 that, then.

23           MR. VELLONE: May I follow up briefly to ask Mr.  
24 Chapman to expand on his comment that the Power Advisory  
25 report may actually under estimate the impacts of a higher  
26 ETS rate. I just want to understand the thought there.

27           MR. CHAPMAN: Yes. I noted in the report they have  
28 taken somewhat conservative assumptions, and that makes

1 sense in many cases, particularly I think on some of the  
2 curtailment costs, payments which I think -- I think would  
3 be higher.

4 And I think the other costs that we are acutely aware  
5 of at the IESO is particularly on the upside is that it is  
6 a non-linear relationship.

7 So as a system operator, we do our very best to avoid  
8 taking costly control actions, particularly when it comes  
9 to manoeuvring nuclear units and potentially shutting down  
10 nuclear units.

11 If we shut down a nuclear unit, it takes three days to  
12 come back. We have to burn a lot of natural gas in the  
13 meantime to make up for the shortfall. It is in  
14 the millions of dollars, each of those events.

15 And in our opinion, hopefully you'll humour me,  
16 because I may have gone off in a little bit of a tangent,  
17 but if we increase the ETS, we're increasing the risk that  
18 we have to undertake more of those actions, undesirable  
19 actions.

20 It is very hard to pinpoint the price point at which  
21 they will take place, because it will vary according to the  
22 time of year, supply and demand conditions. It could be  
23 during [inaudible] when Ontario demand is extremely low and  
24 we're exporting to New York. A small increase in those  
25 transaction costs could dramatically reduce export volumes  
26 and we would have to take fairly dramatic instruction to  
27 the nuclear operators to curtail or even shut down.

28 And so those practical impacts are often hard to

1 pinpoint to, you know, a dollar number with precision. But  
2 they're something as a system operator we're acutely aware  
3 of, and we do our very best to try to minimize being in  
4 those situations.

5 And I think it is very difficult for any consultant  
6 who, you know -- and the Power Advisory have a lot of  
7 professional experience, but they don't work at the system  
8 operator. They don't work -- don't hear from the  
9 controller and our operators some of those practical  
10 challenges that we face during particular tricky parts of  
11 the year.

12 That's why we're very mindful that with the large  
13 share of base load supply in Ontario -- and there is a very  
14 good graph in this report, I think on page 24, maybe chart  
15 number 5, which shows how different our supply mix is to  
16 our neighbouring U.S. markets.

17 And so this point I am trying to make is with such a  
18 large share of base load supply, we want to avoid wherever  
19 we can taking those costly unnecessary control measures to  
20 manoeuvre nuclear plants or even spill large amounts of  
21 water at one of the river hydro plants that must meet  
22 environmental regulations.

23 These are real costs, real challenges that impose wear  
24 and tear on units that were never really designed to  
25 operate that way.

26 And that is why we hopefully, through our evidence,  
27 were suggesting that these operational considerations  
28 should be factored into, to any decision.

1 MR. RUBENSTEIN: Thanks. Can we go back just to that  
2 table, because you -- I took it from your comments -- and  
3 you have done not a detailed analysis, but clearly you have  
4 some views from your review, and I just want to make sure I  
5 understand, because there are -- your comments I would  
6 break down into two categories. One is some of the  
7 assumptions in the calculations they provided may be  
8 conservative. Then the second is, here is a bunch of other  
9 things that are not even in the report that are -- you  
10 know, you may not be able to quantify, but they have some  
11 value. That is how I heard it. Is that a fair  
12 characterization of your --

13 MR. CHAPMAN: Yes.

14 MR. RUBENSTEIN: So with respect to the first category  
15 on the conservative assumption, so clearly you have  
16 actually done -- looked at this to some degree, and maybe  
17 you can provide, either now or through an undertaking,  
18 which ones? What are the assumptions that you think that  
19 they are conservative about or not?

20 MR. KWOK: I think we did note when we read the report  
21 that there were also notes throughout the document that did  
22 note it, that it took a conservative approach to estimate  
23 something. Sometimes they took a midpoint, and I think  
24 that has kind of, you know, picked some -- you know,  
25 impacted our perspective on those.

26 MR. RUBENSTEIN: And so when you read their view  
27 saying we have taken a conservative approach, was it,  
28 that's what they said, or -- and we agree that that is a



1 conservative approach?

2 MR. KWOK: No. I haven't -- we haven't actually  
3 analyzed the information, but when they said they took an  
4 average or something to that effect, then that would imply  
5 a conservative approach.

6 MR. RUBENSTEIN: Okay. So you're not confirming that  
7 your view is also that it is a conservative approach.  
8 You're just noting that that is their view in the report,  
9 they being Power Advisory?

10 MR. CHAPMAN: Hmm-hmm.

11 MR. RUBENSTEIN: Sorry, is that a yes?

12 MR. CHAPMAN: Yes.

13 MR. RUBENSTEIN: Okay. Just for the transcript.

14 All right. Thank you very much, panel. That is very  
15 helpful. I just note I may come back after I look through  
16 the summary report on the uplift tonight. If I have a  
17 follow-up question, I will ask for the indulgence from the  
18 Board for that. All right. Thank you very much.

19 MR. SIDLOFSKY: Thanks, Mr. Rubenstein. We are moving  
20 on to Mr. Harper for VECC.

21 **EXAMINATION BY MR. HARPER:**

22 MR. HARPER: Yes. As Jamie said, my name is Bill  
23 Harper. I'm a consultant working for VECC.

24 Before I get into my questions, I wanted to go back  
25 and talk about -- go back and revisit one of the questions  
26 Mr. Rubenstein asked you. It was the very first one. So  
27 if we can turn up your response to Staff 34B.

28 And here you have been asked about the purpose of the

1 ICP. And in the discussion with Mr. Rubenstein you talked  
2 a lot about after the congestion revenues have been  
3 collected, who they were given back to and basically who  
4 they were paid to, if I could put it that way, and who  
5 benefited from them.

6 But it seems to me -- and if I just look at the second  
7 sentence in this response -- that really -- the purpose of  
8 the ICP, if I understand correctly, wasn't actually to  
9 collect money to sort of pay -- you know, to collect the  
10 specific amount of money to pay the transmission users or  
11 to help cover the transmission revenue requirement.

12 The purpose was basically to -- to basically ration  
13 what was the scarce resource; i.e., the amount of inter-tie  
14 capacity available. And that is the purpose of it, is  
15 to -- and that's the way the pricing's set, and it is on  
16 the basis of that pricing that you get a certain amount of  
17 money that you then give back to people. Is that a fair  
18 characterization?

19 MR. DUFFY: So I am going to interject there, and  
20 maybe I should have said something earlier to Mr.  
21 Rubenstein.

22 So we can all go back and read the Board decision,  
23 which we reference there in RP-1999-0044, and there is an  
24 extensive discussion about this issue.

25 And so to -- you know, like, I don't want to have my  
26 witnesses here put on the spot that they can remember some  
27 particular document. We can all read that report -- or  
28 that Board decision and see what it discussed.

1           These questions are based on our take on what that  
2   said at the time, and, you know, if you want to ask about  
3   that or you have a disagreement about that, feel free, but,  
4   like, I just -- let's not overlook the fact, as I said,  
5   this was extensively discussed in that report. It was also  
6   2012 when the Board considered it. The issue of whether or  
7   not TRCA revenues were flowing back to ratepayers was a key  
8   consideration. There was a TRCA methodology change  
9   undertaken by the IESO.

10           So there is a complex and lengthy history here to it,  
11   and I just -- I am a bit concerned that by asking a very  
12   narrow question like that we are just overlooking all of  
13   that history.

14           MR. HARPER: So maybe just to clarify, that second  
15   sentence in that response where you say specifically what  
16   the purpose is, that is not the IESO's view. That is your  
17   interpretation of what the Board was -- the way the Board  
18   making its decision?

19           MR. DUFFY: Can we just see what the exact question  
20   was? We were asked about --

21           MR. HARPER: You were asked about your view as to the  
22   purpose of the ICP.

23           MR. DUFFY: Right. And --

24           MR. HARPER: And if we go down -- scroll down, I was  
25   just referring specifically to the second sentence in the  
26   response, where you basically say -- and if you want to  
27   scroll down we can read it through, and I was trying to, in  
28   my own -- put into my own words, but I think my words were

1 fairly representative of what was there. It basically  
2 says:

3 "The purpose of the ICP mechanism is to  
4 competitively, fairly, and transparently allocate  
5 access to an inter-tie when there is more demand  
6 than capacity -- and capability, excuse me --  
7 resulting in efficient operation, as part of the  
8 efficient operation of the wholesale market."

9 And so all I was wanting to confirm that that was the  
10 IESO's view as to -- that was the IESO's view as to the  
11 purpose of the ICP.

12 MR. DUFFY: I think it is set out in the market rules,  
13 and we can -- if you wish, we can locate that for you and  
14 provide a reference.

15 MR. HARPER: I am trying to make the distinction  
16 between the purpose and -- you know, I mean, the market  
17 rules go through in a rather difficult-to-read version  
18 sometimes --

19 MR. DUFFY: Fair enough.

20 MR. HARPER: -- an explanation as to how things are  
21 done.

22 MR. DUFFY: Yes.

23 MR. HARPER: But the question is, this question was  
24 dealing more for what's the underlying purpose of why a  
25 particular mechanism exists. And if the market rules  
26 actually address that, that's fine. Otherwise I am not too  
27 sure referring to the market rules would be that useful.

28 MR. DUFFY: I am happy to let Mr. Chapman and Mr. Kwok

1 speak to their understanding of its purpose. I just,  
2 again...

3 MR. HARPER: No, I'm sorry, and I am just trying to go  
4 back to the original question, because the discussion with  
5 Mr. Rubenstein talked more about how -- seemed to talk more  
6 about how the money was disbursed than what the purpose of  
7 the mechanism was in the first place, and that was my  
8 understanding of what the question actually was.

9 MR. DUFFY: Okay. Fair enough.

10 MR. CHAPMAN: I think, let me start again. So some of  
11 it is a bit lost in the mists of time, back to the days of  
12 the markets committee. But as a system operator and a  
13 market operator, our mandate is cost-effective reliability.  
14 And so we're constantly wanting to make sure that we are  
15 maximizing the utility or the value of the electricity  
16 infrastructure that we operate, including the inter-ties.

17 And the ICP mechanism that ensures that at any moment  
18 in time we are maximizing the value of inter-tie  
19 transactions, because it ensures -- you know, as I have  
20 mentioned a few times, the market is changing on an hourly  
21 -- five-minute basis. It is changing constantly, you know,  
22 according to demand and supply in Ontario and our  
23 neighbours.

24 So by having the dynamic mechanism like ICP that is  
25 adjusting in tune with how the market is changing ensures  
26 that any moment in time we are maximizing the value of that  
27 asset.

28 Conversely, if we had a fixed charge and we levered a

1 fixed charge, that fixed charge would never be in tune  
2 precisely with market conditions.

3 So it would either always be -- it would always be  
4 underutilizing the asset relative to the ICP.

5 So I guess -- I am not familiar with the regulatory  
6 discussions that have happened around why we had a ICP in  
7 the first place, but from someone who works at the IESO,  
8 we're operating the grid day-to-day, hourly basis. It is  
9 really important to us that we're maximizing the value of  
10 those inter-tie assets, and because the ICP is dynamic and  
11 adjusts naturally to changing market conditions, we can be  
12 assured that we're -- we are collecting those congestion  
13 rents to the best -- to whatever the market will bear and  
14 returning those revenues back to ratepayers who are paying  
15 for the investments that are being made.

16 MR. HARPER: I think that answers my question, so I am  
17 fine with that. So maybe I would like to move into the  
18 questions I had. Maybe we can go to your response to --

19 MR. VELLONE: Bill, before you go on, because I did  
20 have a follow-up on the exact same point. Mr. Duffy, I  
21 reacted to some of the early questions from -- questions  
22 from Mr. Rubenstein around Mr. Chapman not being able to  
23 think of a reference document on the spot in a similar way  
24 to you.

25 So I will float an undertaking and you can tell me  
26 whether or not you, your client are willing to take it.

27 I think that in this case a matter that would be of  
28 interest to the adjudicative panel with regards to the

1 setting of an ETS rate or not, does go to what we do know,  
2 what is publicly available, what is referenceable about the  
3 purpose and intent of the ICP program writ large.

4 And if the answers are in documents like RP 1999-0044  
5 and some other publicly available documents and we can  
6 point back to them, maybe just an undertaking to give your  
7 team some time to pull that together as opposed to trying  
8 to answer it on the spot.

9 And just by way of context, in twenty minutes, after  
10 Mr. Rubenstein answered his question, I found references in  
11 the Framework For Energy Competition to congestion pricing  
12 mechanisms, so as to facilitate planning for new  
13 transmission facilities.

14 I am wondering if maybe some time and attention to  
15 traipsing through the policy origins of this concept would  
16 be of help to the panel, and do it by way of undertaking  
17 instead of on the spot.

18 MR. DUFFY: I can appreciate the request. I am not  
19 sure why it is that would be the IESO that should undertake  
20 that task. I would have thought any party can do it, Mr.  
21 Pattani, if there is a desire we do it, we can take an  
22 undertaking to look through and provide references from the  
23 Market Rules and then others as to the establishment of the  
24 purpose of the ICP and its time of inception to the extent  
25 we can find them twenty years later.

26 MR. SIDLOFSKY: Sorry. Mr. Pattani, I will let you  
27 jump in here for a moment.

28 MR. PATTANI: Yes. I'm jumping in primarily to be

1 helpful here. I was part of the energy market subgroup of  
2 the market design committee that developed these market  
3 rules that ultimately ended up in the ICP.

4 I have the market rules documents with me, as well as  
5 the market subcommittee group.

6 One of the discussions that happened for a long time  
7 is there was a strong push to get a LMP type of energy  
8 market in Ontario, and we were almost very close to  
9 agreeing to get this LMP in Ontario.

10 However, there was some cold feet in terms of what if  
11 it goes out of our hands, and so on and so forth. So that  
12 went on to then say instead of having a LMP, let us have a  
13 uniform pricing within Ontario for energy and then the  
14 question came, how do we then resolve how to deal with  
15 inter-ties and how will we then allocate the inter-tie  
16 capacity to people who want to export.

17 From there, it went to, okay, for inter-ties then we  
18 will have exporters bid on the inter-ties for what they're  
19 willing to take and that will form the price of the export  
20 on the other side of the inter-tie, and whatever the  
21 difference between the two is, when it happens, if it  
22 happens during congestion should be the ICP and because  
23 this -- what we are doing here is to sort of divvy up the  
24 resources according to the desire of the market  
25 participants as to how much they're willing to pay.

26 That is how the ICP came into being. And once that  
27 was agreed, then they went on to say, how will we then  
28 distribute the ICP back to the market. And of course there



1 was a language about give it back to the transmission  
2 users, let it be through the market, and so on.

3 In fact, at one point they almost decided to give it  
4 to Hydro One and then they included into that transmission  
5 rates, but that was turned down and they decided to then  
6 distribute it straight from the IESO to the market  
7 participants.

8 So I'm sorry I interrupted, but I thought having been  
9 there, I need to perhaps give you this history.

10 MR. SIDLOFSKY: Mr. Pattani, thanks very much for  
11 that. In terms of the discussion that preceded your  
12 comments, I think where we are is that we've got an  
13 outstanding request for an undertaking, and I don't want to  
14 lose track of that either.

15 MR. PATTANI: Sure.

16 MR. SIDLOFSKY: Now, again, Mr. Pattani, not shutting  
17 you down. I just want to make sure I don't lose track of  
18 that request.

19 MR. PATTANI: Yeah, okay.

20 MR. VELLONE: So with regards to that request, Mr.  
21 Sidlofsky, I did want to address Mr. Duffy's concern around  
22 why the IESO maybe is being asked to do this.

23 My principal concern -- the ICP is the IESO's program.  
24 It operates it, it runs it. It has the best institutional  
25 knowledge with regards to the program.

26 And my concern, given the questioning in this  
27 proceeding, is that everyone has a completely different  
28 view on what the history and how we got here and what it is

1 doing. And I think it would be helpful, for the OEB  
2 panel's perspective, to understand what your client's view  
3 is because that is very informative for my client. It  
4 probably is for others as well.

5 MR. DUFFY: Mr. Rubenstein?

6 MR. RUBENSTEIN: I am also supportive of the  
7 undertaking, on my line of questions on the basis that the  
8 IESO has taken a position as is the intent, I think a lot  
9 of my questions were show me where someone has said that is  
10 the intent.

11 MR. DUFFY: I don't think we thought this was  
12 particularly controversial, but anyway, that being said,  
13 Mr. Sidlofsky, we will take an undertaking. I believe this  
14 would be JT1.11.

15 MR. SIDLOFSKY: That's right. We're at JT1.11.

16 MR. DUFFY: To provide its view -- I will state it and  
17 Mr. Vellone and Mr. Rubenstein and Mr. Harper you can let  
18 me know if I have captured it, for the IESO to provide its  
19 view with references to appropriate historical  
20 documentation as to the purpose of the ICP mechanism.

21 MR. SIDLOFSKY: Okay. That will be JT1.11.

22 **UNDERTAKING NO. JT1.11: THE IESO TO PROVIDE ITS VIEW**  
23 **WITH REFERENCES TO APPROPRIATE HISTORICAL**  
24 **DOCUMENTATION AS TO THE PURPOSE OF THE ICP MECHANISM.**

25 MR. DUFFY: Thank you.

26 MR. SIDLOFSKY: I think we're still with you, Mr.  
27 Harper.

28 MR. HARPER: I was going to say unfortunately I have

1 more than ten minutes. Maybe not sixty, but more than ten  
2 and I noticed, Jamie, you scheduled a break for ten minutes  
3 from now and whether you want to take that now before I get  
4 into my actual questions, or I can go part-way through. I  
5 am in your hands and it is up to yourself as to how you  
6 want me to proceed.

7 MR. SIDLOFSKY: Roughly how long do you figure you  
8 will be, Bill?

9 MR. HARPER: I don't know because part of it is --  
10 unfortunately Mark Rubenstein asked a number of the  
11 questions that I was going to ask, but I have to parse it,  
12 I will have to try and handle those on the fly and see what  
13 I can eliminate. I think maybe 45 minutes. It depends a  
14 lot on the answers. We spent a lot of time on this  
15 question.

16 MR. SIDLOFSKY: I'll tell you what. I suspect that  
17 having the break now would give you a chance to do some of  
18 that parsing.

19 So why don't we take that break now, and that will  
20 give you a few minutes to think about whether you can cut  
21 anything down.

22 Everybody else okay with that? Speak up now. Okay.  
23 Let's take our afternoon break. We will come back at,  
24 let's say 2:45. I will give you an extra few minutes,  
25 Bill, if that helps.

26 MR. HARPER: Okay. We'll see, okay, thank you.

27 MR. SIDLOFSKY: All right, 2:45. Thanks.

28 --- Recess taken at 2:25 p.m.

1 --- On resuming at 2:45 p.m.

2 MR. SIDLOFSKY: Let's go on the record, Teresa,  
3 please.

4 **EXAMINATION BY MR. HARPER:**

5 MR. HARPER: Okay. If we can turn to my questions  
6 now, maybe. And my first one has to do with the IESO's  
7 response to Staff 1B, so if you can turn up that. Just  
8 scroll down to the response.

9 Now, in the question Staff had asked for the IESO's  
10 views as to the purpose of the ETS rate, and in your  
11 response you describe how there are competing objectives or  
12 considerations in setting the rate, and you express your  
13 views as to what are the important considerations, but I  
14 didn't have see a specific answer to the original question,  
15 which was what was the purpose of the rate.

16 And maybe to try and sort of see if there is any  
17 commonality of understanding, if we can maybe just scroll  
18 up to the response to 1B -- excuse me, 1A. Here Hydro One  
19 was asked exactly the same question. And I guess I was  
20 wondering -- like I said, if there is a commonality of view  
21 that is great -- but whether you would agree with Hydro  
22 One's response here as to what was the purpose of the ETS  
23 rate. I guess it is really in the first sentence there.

24 MR. DUFFY: Sorry, again, Mr. Harper, I don't mean to  
25 be difficult, but this was canvassed -- the purpose of the  
26 rate was set. It was determined by the OEB in a  
27 proceeding. I am not sure -- you know, you asked -- we  
28 were asked this question, and we said, go look at the OEB

1 decision. So I am not sure what more it is you are looking  
2 to have these witnesses tell you.

3 MR. HARPER: What I was trying to -- in my own mind  
4 was parse between purpose and considerations that go into  
5 setting the rate, and -- but rather than go into a long  
6 prolonged discussion on this, maybe we can just turn to  
7 your response to VECC 2.2 and see if we can get anywhere on  
8 this.

9 MR. VELLONE: Sorry, what number is VECC?

10 MR. HARPER: VECC 2.2.

11 MR. VELLONE: Can you give me the I-0 number?

12 MR. HARPER: It is the same file. It is schedule 1,  
13 tab 5, VECC 2.2. Schedule I, excuse me, tab 5, VECC 2.2.

14 MR. VELLONE: Thank you.

15 MR. HARPER: And maybe just hang with the preamble, I  
16 mean, if you look at the question, I mean -- and I must  
17 admit, I will acknowledge that the question was mis-worded  
18 and it should have referred to the OEB as the party setting  
19 the ETS rate and not the IESO.

20 But with that clarification, does the IESO still agree  
21 with its EB-2012-0031 submission that there are a number of  
22 factors that the OEB must consider, apart from the  
23 maximizing the operational economic values to buy exports  
24 when establishing an appropriate export rate? Do you still  
25 agree with that statement that you have there from your EB-  
26 2012-0031 submission?

27 MR. CHAPMAN: Yes.

28 MR. HARPER: Okay. That's fine. Okay. And I

1 guess -- so if we go to APPrO 2C then. And that is, again,  
2 in the tab I, responses -- I believe APPrO was schedule 9,  
3 if I am not mistaken.

4 And here you state that:

5 "The IESO does not believe that a cost allocation  
6 model is optimal for exporters for the reasons  
7 discussed in the IESO ETS rate submissions."

8 And I guess, would I be correct that that statement  
9 again is based on your perspective as to how ETS rates  
10 should be set in your role, basically, as maximizing the  
11 operational -- the benefits of -- and economic efficiency  
12 of the electricity system?

13 MR. CHAPMAN: I think we have acknowledged that there  
14 are a number of considerations that need to be taken into  
15 account to set an ETS rate, and that is up to the OEB and  
16 others to decide.

17 What we wanted to highlight is that, in making those  
18 decisions, consideration should be given to the operational  
19 impacts of the actual ETS rate itself and to be mindful  
20 that, you know, ETS -- that the amount that the ETS has set  
21 out has implications for inter-tie trade and  
22 correspondingly impacts on our ability to operate the grid  
23 reliably and cost-effectively.

24 MR. HARPER: That's fair. That's what I was just  
25 looking to clarify, thank you.

26 This is one of the questions where I tried to pare it  
27 down, because there was something that -- and Mr.  
28 Rubenstein also canvassed, so I don't -- rather than going

1 to a reference, you had a discussion with Mr. Rubenstein  
2 about LMP in other jurisdictions and how the fact that LMP  
3 in other jurisdictions was really their way of addressing  
4 congestion on the inter-ties.

5 And the only thing I wasn't -- and I don't know  
6 whether you can help me with or not, but in those  
7 jurisdictions, when exporters pay that higher price, the  
8 LMP, do you know who actually gets the benefit of those  
9 higher prices? Like, does that higher price benefit go  
10 back to the generators? Does it go back to the  
11 transmission users?

12 Or if you don't know, that's fine. I was just  
13 curious, because we talked a lot about sort of managing the  
14 congestion. We also had a lot of discussion here about,  
15 you know, where the revenues go after they're collected,  
16 and I was just curious from an LMP perspective where the  
17 higher revenues from that, ostensibly a congestion payment,  
18 would be going.

19 MR. CHAPMAN: I don't have a precise answer for you.  
20 I don't know if my colleague Jason would like to comment on  
21 this one.

22 MR. KWOK: Bill, I guess in the other jurisdictions  
23 that use LMP, it is the IESO's understanding that,  
24 generally speaking, benefits, if there are benefits  
25 accruing to -- from congestion payments they would flow  
26 back to the people that are paying for the costs of the  
27 transmission system.

28 MR. HARPER: Oh, okay. Fine. No, I just -- like I

1 said, it was only if you knew that -- I wasn't going to ask  
2 for an undertaking in any context, so that's great.

3 Could we now go to the IESO's response to Energy Probe  
4 3F.

5 UNKNOWN SPEAKER: Sorry, what tab is Energy Probe  
6 again?

7 MR. HARPER: I'm sorry. Is it -- I would be guessing.  
8 I didn't write the tabs down. It is schedule 2, perhaps, I  
9 -- right, okay. Good guess, I guess.

10 Can you just scroll down in your response to part F?  
11 And here you talk about, I think -- you have talked about  
12 this in general:

13 "Trading over the inter-ties is a competitive  
14 market. Therefore, the future amount of exports  
15 can be influenced by fundamental drivers, such as  
16 supply mix characteristics, weather, demand  
17 patterns, as well as transactional costs."

18 Now, when you say supply mix characteristics and  
19 weather, that would be both on the Ontario side of the  
20 inter-tie and the neighbouring jurisdictions' side of the  
21 inter-tie?

22 MR. CHAPMAN: Absolutely, yes. Those are really  
23 important considerations.

24 MR. HARPER: And those circumstances could be changing  
25 hourly, for that matter? Is that correct?

26 MR. CHAPMAN: They do change hourly.

27 MR. HARPER: Okay. Would I be fair to add to that  
28 list of factors the fact that inter-tie limits may vary



1 over time and their availability -- like, just by virtue of  
2 the temperature, and that the availability of the inter-  
3 ties could actually vary over the year, so that would be  
4 another factor you would have to put into that?

5 MR. CHAPMAN: That's correct.

6 MR. HARPER: Okay.

7 MR. CHAPMAN: Yes.

8 MR. HARPER: And you're talking about here about the  
9 future. Would that same comment apply to drivers and  
10 reasons behind historical variations and export volumes if  
11 we were to look at, say, 2018, 2019, 2020, those same  
12 drivers would drive the hourly variations?

13 MR. CHAPMAN: Yes. If you look at the data we  
14 provide -- well, I am sure you have -- and you will see  
15 variances in the congestion rents we have collected, all  
16 the points that you have raised are good reasons why we see  
17 those variances.

18 We see changes in natural gas prices has a big  
19 influence. We have nuclear units going on refurbishment,  
20 which might, you know, reduce the amount of load cost  
21 supply in Ontario. We have a changing supply mix where we  
22 have added a lot of low marginal cost wind, for example,  
23 that has had a big influence on the volume of exports. So  
24 there is many factors which you've highlighted influence  
25 the, not just the year-over-year, but hour-to-hour volumes  
26 of transactions on the inter-ties.

27 MR. HARPER: Okay, fine. No, that is great.

28 Now, can we turn to Energy Probe 5A. Now, as I

1 understand it, the response, the hourly ICP value at a  
2 given inter-tie can be determined as the difference between  
3 the actual price paid by the exporter and the actual HOEP  
4 value for that particular hour. Am I correct?

5 MR. CHAPMAN: Yes. That's correct. The exporter will  
6 pay what is known as the IZP, the inter-tie zonal price  
7 which is the sum of the HOEP and the ICP.

8 MR. HARPER: And the ICP is determined -- and is the  
9 actual value of the ICP that's determined I believe in the  
10 hour ahead market schedule. Correct?

11 MR. CHAPMAN: Correct. It is influenced by the degree  
12 of competition between traders bidding up the price. So  
13 let's say HOEP is ten dollars; the traders may bid it up to  
14 20 dollars to then sell it at 22 dollars in the  
15 neighbouring market. And then the delta is what we collect  
16 in ICP.

17 So in practical terms, we end up collecting the  
18 majority of the price difference and the trader gets to  
19 keep a small margin.

20 MR. HARPER: Thank you. Now, Power Advisory, in their  
21 response to their interrogatories, provided hourly data on  
22 the interzonal -- I probably don't have my term right, but  
23 the inter-tie price and also on the HOEP price.

24 When I look at the difference between those two, I  
25 actually saw hours where the ICP value appeared to be  
26 negative. Is that a result that can actually arise? If  
27 so, why would that arise? Or am I doing my math wrong when  
28 I am looking at the file?

1 MR. KWOK: Do you mind pointing to...

2 MR. HARPER: It is a rather large spreadsheet. It was  
3 just something I noticed. I don't have a specific  
4 reference. Let me just ask is it actually possible for an  
5 ICP value to be negative?

6 MR. CHAPMAN: It would be negative if it is an import,  
7 for example.

8 MR. HARPER: For exports, it would always be positive?

9 MR. KWOK: It's possible that an export could have a  
10 negative ICP, and that is during times when we have import  
11 congestion and there is more than enough demand for the --  
12 then we have available supply and we have an import  
13 congestion, we could still facilitate an export technically  
14 in our model through something that we call net scheduling.

15 So it becomes essentially a financial trade that you  
16 could have an export that would receive the congestion, but  
17 that is only in the case where there is too much demand for  
18 the import.

19 MR. HARPER: Okay. There weren't a lot of these.

20 MR. KWOK: No.

21 MR. HARPER: I think you answered my question  
22 sufficiently. There are unique circumstances where this  
23 can occur and that is all I was looking to understand.

24 Can we go to your response to VECC 22.2? Now, in your  
25 first sentence there, you state -- in your first sentence  
26 you state,

27 "A higher ETS rate will be offset by reductions  
28 in the ICP and also prevent exports from

1           occurring at all."

2           Now am I correct that this statement is referring to a  
3 situation where there is congestion and ICP exists before  
4 you actually increase the ETS rate any further?

5           MR. CHAPMAN: It could apply to uncongested inter-tie  
6 as well. If we set a higher ETS, it could -- uncongested  
7 inter-tie means the line isn't being utilized to its full  
8 capacity. So if you incur a higher transaction cost, some  
9 of those transactions would no longer be economic. So you  
10 would see a lowering utilization rate.

11          MR. HARPER: I was focussing on the first part of the  
12 sentence, which suggested that the higher ETS rate would be  
13 offset by reductions in the ICP.

14          MR. CHAPMAN: Yes.

15          MR. HARPER: I am assuming that means an ETS existed  
16 to begin with, which meant there was congestion to begin  
17 with before you contemplated the idea of, you know, and so  
18 that this first sentence would apply in situations where  
19 there was congestion because otherwise, there wouldn't be  
20 any ICP.

21          MR. CHAPMAN: That's correct.

22          MR. HARPER: Okay. Because the suggestion -- the  
23 sentence also talks about the fact that it would prevent  
24 exports from occurring.

25          Now, if I go to page 12 of your submission, that is  
26 attachment 3 to the original submissions from yourselves  
27 and Hydro One. If you go to page 12, and you've got -- if  
28 you scroll up a little bit.

1           There is two -- is this page 12?

2           MR. CHAPMAN: That is page 11. I think page 12 is the  
3 next one.

4           MR. HARPER: Sorry. I thought you were on page 12.  
5 You have two circumstances here. The first one is the wide  
6 spread between markets, which I think within the discussion  
7 here is -- that's when you would expect to see congestion  
8 and expect to have an ICP.

9           And in this discussion here, you basically say there  
10 would be no impact on export flow. I was trying to  
11 reconcile that comment there about there would be no impact  
12 on export flows in those circumstances with your comment in  
13 response to VECC 22.2, which suggested there would be an  
14 impact on export flows.

15           Maybe if I can describe to you what I think is going  
16 on and you can tell me if I am wrong, often I find it is  
17 easier if I put it in my own words because that way I  
18 understand what the answer is.

19           So would I be correct that if the initial ICP was  
20 greater than the anticipated increase in the export tariff,  
21 then like -- let's say the initial ICP was five dollars and  
22 the export tariff increase was contemplated to be four  
23 dollars, so increasing the export tariff would basically  
24 just have a one-to-one impact with the ICP, but there  
25 wouldn't be any impact on export flows.

26           Would that be correct?

27           MR. CHAPMAN: In that instance, yes.

28           MR. HARPER: Yes, okay. But if you think of a

1 situation where let's say the ICP was less than the  
2 anticipated increase in export prices -- like in this case  
3 the increase was thought to be four dollars, but the ICP  
4 was only three dollars. In that case, the impact would be  
5 you would not only see a reduction in the ICP probably down  
6 to zero, but you would also probably see a reduction in  
7 export flows.

8 MR. CHAPMAN: Yes.

9 MR. HARPER: Okay. That probably in my mind helps me.  
10 I think that reconciles those two statements. Would that  
11 be correct?

12 MR. CHAPMAN: That's correct. Just one extra piece.  
13 I know you didn't ask for it, but we provided like average  
14 numbers in our tables. But each inter-tie, you know, it  
15 may be on average as I said in price, but there's a bit --  
16 it fluctuates hour by hour. Sometimes it could be at zero,  
17 twelve.

18 So although an average an inter-tie may have, you  
19 know, an ICP of ten dollars for example like on the  
20 Michigan line, which is like nine dollars. There would be  
21 many hours where the ICP is very low and many hours when it  
22 is very high.

23 So I just caution against sort of taking average  
24 numbers and trying to draw conclusions on the impact.

25 MR. HARPER: No. I understand the impact, you know,  
26 because even in any particular hour, the ICP will be  
27 different on each inter-tie. So you can't say, you know,  
28 the ICP in a particular hour is X because it is going to be

1 X only on a certain inter-tie. It will be Y on some other  
2 inter-tie.

3 MR. CHAPMAN: That's correct, yes.

4 MR. HARPER: And it may be zero on a third inter-tie  
5 at the same point.

6 MR. CHAPMAN: Yes.

7 MR. HARPER: Right. Okay. I think we're moving here  
8 fairly quickly here.

9 This has to do with -- I think you gave an undertaking  
10 to Mr. Rubenstein, JT1.9, but it has to do with the CRA  
11 analysis. And maybe if we can go to VECC 8, just in the  
12 preamble to the -- I think Mr. Rubenstein had spoken to you  
13 about the fact that the 2012 TRCA analysis looked at three  
14 different cases. The preamble here summarizes the results  
15 from those three cases.

16 He was talking to you about how things might look in  
17 the future. I just want to summarize what I think is the  
18 answer, that is that -- because I asked you, too, about  
19 which of these three cases looked most representative of  
20 the future.

21 You really -- and you didn't really specifically  
22 answer the question and would that be because there is  
23 sufficient uncertainty about the future that you really  
24 don't know which of those three cases might best represent  
25 the future. Is that a fair comment?

26 MR. CHAPMAN: That's a fair comment. We have  
27 highlighted through our planning outlook the need by the  
28 system need. But how we meet that need, there will be

1 decisions that will be made and policy makers have an  
2 influence, stakeholders have an influence, the IESO has a  
3 say, but how we meet that need will actually determine  
4 actual market outcomes.

5 For example, if we meet that need with nuclear units  
6 verses a storage facility, you could see very different  
7 market outcome.

8 So while we have identified a planning need, an  
9 operational need, decisions still have to be made on how we  
10 will actually address it. And depending upon how we  
11 address it will influence market outcomes that we will  
12 experience.

13 MR. HARPER: That is a nice segue into my next  
14 question, which is, am I correct that the resource adequacy  
15 forecasts in year 2021-APO don't include any new resources,  
16 they're just based on your forecast demand and comparing  
17 that with existing resources on the system? You know, and  
18 you have done two cases, one with, you know, depending upon  
19 what happens to nuclear refurbishment, but there is no new  
20 resources included in that -- in that APO. Is that  
21 correct?

22 MR. CHAPMAN: You are correct in terms of the summary  
23 of the APO. I think we highlight in the APO the shortfall.  
24 We haven't predetermined how to meet that shortfall at this  
25 moment in time, and there is a separate exercise going on  
26 at the IESO to determine, you know, how do we secure  
27 resources to meet those future needs and -- yeah, we will  
28 need to wait and see the outcome of those --



1           MR. HARPER: I guess that is sort of -- actually, that  
2 is my very last question here. Jamie, I managed to cut a  
3 lot of this out, Jamie, you will be pleased to know, and  
4 that is both in its evidence and in the IR responses Power  
5 Advisory makes references to future generation procurement  
6 by the IESO, and I asked them for some information on that,  
7 and they basically said, go look at the IESO website.

8           And so, you know, and so I was wondering whether --  
9 and I guess what I'm -- you know, since we're talking  
10 primarily about the period 2023 to 2027, which is where the  
11 current -- you know, which is really what the focus of sort  
12 of Hydro One's JRAP application is and where this export  
13 tariff is going to apply, do any of your future plans for  
14 procurement, do they anticipate having new resources on the  
15 system prior to -- sort of prior to 2028? Or is it all  
16 focused on the period after 2028?

17          MR. CHAPMAN: I hate to say it, but there is quite a  
18 bit more information on the resource adequacy framework  
19 that is being rolled out by the IESO.

20          I don't work in that particular part of the business,  
21 so I would be reluctant to comment on the specifics. But  
22 we are planning for both the short- and the near-term, as  
23 well as the long-term. There is a series of activities to  
24 make sure we have the resources that we need.

25          MR. HARPER: Well, you know, maybe the easiest thing  
26 to do is -- and I guess Power Advisory suggested to me that  
27 it was all on your website and whether you would be willing  
28 to just take an undertaking to sort of provide to me sort

1 of, you know, some of the key web links that indicate that  
2 -- links to places on your website where your procurement  
3 activities are being described, you know, and this would be  
4 publicly available descriptions. If you could undertake to  
5 do that, that would be particularly helpful from my  
6 perspective.

7 MR. CHAPMAN: We can certainly do that, yes.

8 MR. HARPER: Fine. I think with that, that is the end  
9 of my questions.

10 MR. SIDLOFSKY: Thanks, Mr. Harper. So that will be  
11 JT1.12.

12 **UNDERTAKING NO. JT1.12: IESO TO PROVIDE THE KEY WEB**  
13 **LINKS TO PLACES ON THE WEBSITE WHERE THE PROCUREMENT**  
14 **ACTIVITIES ARE BEING DESCRIBED.**

15 MR. SIDLOFSKY: And we will move on to Mr. Pattani.

16 **EXAMINATION BY MR. PATTANI:**

17 MR. PATTANI: Thanks. Thank you very much, Mr.  
18 Sidlofsky. One second. Let me get my -- okay.

19 I would like to start with something we discussed this  
20 morning, and [audio dropout] so clarification I will be  
21 seeking from the IESO is in the matter of consideration of  
22 exports in planning internal transmission in Ontario.

23 To be sure, I am not seeking clarification related to  
24 increasing inter-tie capacity or any transmission  
25 specifically for the purpose of enabling additional  
26 competitive exports. I am not seeking that.

27 Now, in IR I-1.10 -- so in IR I.1.10, IESO stated that  
28 it plans the system in accordance with established planning

1 standards. Power Advisory indicated in its response to IR  
2 -- I mean, the IR, it is PA-Pattani 3, part A -- that, I  
3 quote:

4 "The IESO explicitly stated that it does not plan  
5 the Ontario energy system to account for  
6 exports."

7 End of quote.

8 So can you please clarify whether IESO takes into  
9 consideration the preservation or maintenance of the  
10 existing export capability when planning for transmission  
11 needs for Ontario transmission within Ontario, and I mean  
12 network Ontario transmission within Ontario. When you are  
13 planning for that, do you provide for the export capability  
14 to be maintained?

15 MR. CHAPMAN: So --

16 MR. KWOK: Thank you, yes.

17 MR. CHAPMAN: -- I will start, and Jason, maybe you  
18 can then fill in some of my knowledge gaps here, but you  
19 are correct. Your caveat earlier -- I just want to  
20 reiterate the caveat, Mr. Pattani, that we do not plan  
21 transmission infrastructure for commercial export  
22 opportunities. They are not considered as part of our  
23 planning activities.

24 Now, as I think we said in our response, we do plan  
25 and we do undertake studies and reliability assessments to  
26 ensure that we have an adequate, reliable grid in Ontario,  
27 and there may be instances, based on, you know, specific  
28 needs in a particular part of the province or constraints,

1 and I think you mentioned earlier today in the west of  
2 London area where we've seen significant load growth, we  
3 have seen a decline in supply, what we need to understand  
4 and take into account what is happening on the inter-ties  
5 as part of those planning activities.

6 So that is for reliability and operational  
7 considerations. It is not for commercial export  
8 opportunities.

9 MR. PATTANI: Okay. Again, I am not referring to  
10 commercial export opportunities. To go back to west of  
11 London -- I don't want to bring up the report, because  
12 there is no point since you guys don't have it there. The  
13 west of London's report specifically says that there are  
14 transmission reinforcements are required west of London and  
15 the transmission reinforcements are required west of  
16 Chatham, so that the import capability on the inter-tie can  
17 be maintained at the same time as you are providing for the  
18 load growth in those areas.

19 For example -- I will just give an example. The  
20 megawatts being tossed around are, the inter-tie capability  
21 there is of the order of 16 to 1,700 megawatts. Of course  
22 it depends on the ambient temperature. The load in that  
23 area is of the order of 16 to 1,700 megawatts, 1,700  
24 greater and megawatts.

25 Now, as the load is growing, in order to find the need  
26 of the transmission, you are now including the 1,500  
27 megawatt, 1,600 capacity and the domestic oil in order just  
28 to justify the transmission west of London.

1           To me, it means that you are not lowering the export  
2 capability requirements or export requirements in order to  
3 feed your load domestically, but you are saying that we  
4 must still meet the capability and therefore provide the  
5 transmission.

6           And this is -- and my -- frankly speaking, it has been  
7 done for 20 years now, but the most recent example is 2021,  
8 in the west of London study and the Essex to Chatham study  
9 that the IESO has finished recently, and those both studies  
10 distinctly refer to the fact that you need transmission to  
11 maintain the inter-tie capability.

12           So my question is, do you do that or not?

13           MR. CHAPMAN: Sorry, do we do it or not?

14           MR. PATTANI: Do you plan on the basis of wanting to  
15 maintain the export capability?

16           MR. CHAPMAN: So we -- as part of the reliability  
17 assessments -- and we consider like inter-tie  
18 infrastructure as a critical component of the Ontario grid  
19 -- it is taken into account to ensure the reliability of  
20 supply to Ontario domestic consumers.

21           And whether that is imports or exports or power flows,  
22 it all has to be considered, and I do believe that there  
23 are, you know, situations like the one you have highlighted  
24 -- and I am not the expert on that particular planning  
25 exercise -- where they had to take into account what was  
26 happening at the inter-ties to ensure reliability for  
27 domestic loads.

28           MR. PATTANI: Mr. Chapman, obviously reliability

1 maintenance is very important for the IESO and for the  
2 customers in Ontario. And let's not mix this issue with  
3 reliability.

4 All I am saying is, when you are determining the need  
5 for a transmission west of London, are you including the  
6 megawatts capability of inter-tie in the mix? And if you  
7 want to take an undertaking and ask your planners, we can  
8 do that.

9 MR. CHAPMAN: Yeah, I don't have any additional  
10 information to provide. So if you'll -- and I am not sure  
11 that -- well, I am not sure that -- I won't speak on behalf  
12 of my colleagues in the planning department, but we did  
13 consult with them on our response and, you know, our  
14 response to the IR is really, you know, our position on it.  
15 But we can take an undertaking to see if there is any more  
16 details, if that is going to be helpful to you.

17 MR. PATTANI: Yes. I think in terms of the  
18 undertaking, why don't we word the undertaking as this if  
19 you want, and you can change it as we discussed here.

20 In the forecast area being studied for example, if the  
21 load is increasing to beyond the load meeting capability of  
22 the system, can you defer Ontario transmission investments  
23 by reducing the allowance for exports to below the export  
24 capability of the downstream inter-tie?

25 And while doing this, while responding to this, please  
26 take into account section 3.2 of the Ontario Resource and  
27 Transmission Assessment Criteria, ORTAC, and the IESO  
28 reports last year summarizing the need for transmission in

1 the Windsor Essex area and the need for a back system  
2 reinforcement west of London.

3 In terms of minor studies or minor transmission and so  
4 on, in my experience, in terms of transmission, these are  
5 measurements over the last five years being committed and I  
6 don't think we should treat this as a minor.

7 You can use dollar amounts from there, or something,  
8 but basically what I am saying is IESO's planning does take  
9 into account the need to maintain the export capability by  
10 having the power being able to get to it.

11 If you can answer that, please.

12 MR. DUFFY: So hold on. I don't know what the  
13 undertaking is. That was very long. Like we need a  
14 question. And then we will give an undertaking for the  
15 question.

16 MR. PATTANI: Okay. The question is --

17 MR. DUFFY: To be very clear, we are not here to say  
18 this is your argument, you know. If you have a question,  
19 give us the question and we will write it down and answer  
20 it.

21 MR. PATTANI: I will give you a question. In order to  
22 meet area requirements in a particular load area, if the  
23 load in those areas is growing and you cannot meet it with  
24 the current Ontario transmission capacity, can you defer  
25 the Ontario transmission investments required by reducing  
26 the allowance for exports to below the export capability of  
27 the downstream inter-tie?

28 And in answering this question, please reference

1 section 3.2 of Ontario Resource and Transmission Assessment  
2 Criteria and the two IESO reports of last year need of  
3 transmission in the Windsor region and the need for  
4 reinforcement west of London.

5 MR. DUFFY: We will give you an undertaking up to the  
6 point of reducing the export capability. As for and, if we  
7 need to reference those, we will reference those. But  
8 we're not going to necessarily look at them if they're not  
9 necessary and we won't comment on two particular scenarios.

10 MR. PATTANI: If you tell me that yes, you do because  
11 we have to maintain export capability, there is no need to  
12 refer. But if you say otherwise, then obviously there is a  
13 contradiction with the reports.

14 MR. DUFFY: That is our undertaking and that is what  
15 we will agree to do.

16 MR. PATTANI: Thank you.

17 MR. SIDLOFSKY: We will make that JT1.13.

18 **UNDERTAKING NO. JT1.13: IESO TO RESPOND TO MR.**  
19 **PATTANI'S QUESTION ABOUT MEETING AREA REQUIREMENTS IN**  
20 **A PARTICULAR LOAD AREA, LIMITED UP TO THE POINT OF**  
21 **REDUCING EXPORT CAPABILITY**

22 MR. PATTANI: My next question is about the ICP  
23 capability. I think this should be very simple.

24 In IR I-1.1, part F, IESO indicated that all exports  
25 into jurisdictions in Ontario are subject to the inter-tie  
26 congestion price. Do you have it? Part F. Congestion  
27 price.

28 However, in IR I-6-6, part A, IESO explained that ICP



1 is applicable only during types of condition.

2 So to ensure there is no ambiguity in the record, can  
3 you please reconcile these answers?

4 MR. CHAPMAN: Certainly. They are compatible.  
5 Perhaps they could have been more clearly stated, but the  
6 ICP applies to all export transactions as part of the  
7 calculation of that inter-tie zonal price that traders pay,  
8 but it is only a positive number if there is congestion on  
9 the inter-tie.

10 So if the line is uncongested, then the parameter will  
11 be set to zero and it will just be HOEP. But in the event  
12 of congestion, then we would expect to see, you know, a  
13 positive or, as Jason indicated earlier in very odd  
14 situations, maybe in the negative number.

15 MR. PATTANI: Thank you very much. Now, my next few  
16 clarifications are for table 1 on page 9 of the IESO  
17 report. I will begin with the matter of positions covered  
18 by some interrogatory responses.

19 So the first clarification is in relation with on the  
20 one hand, the IR I-1.34 K, where the IESO stated that it  
21 views the financial risk of relying on ICP to be low.  
22 Okay.

23 Now, on the other hand, on IR I 5.9 item 9.2 (2) IESO  
24 stated -- sorry, I-5-9, item 9.2 (2), the IESO states that  
25 the IESO does not forecast based on market conditions and  
26 therefore does not forecast for when using table 1.

27 There appears to be some contradiction there, isn't  
28 it? I mean, on one hand you're saying the financial risk

1 is low. On the other hand, you are saying that you do not  
2 do forecasts.

3 MR. CHAPMAN: Okay. I can help explain what we mean  
4 by that.

5 So what we've seen, and as you can see from table 1,  
6 is a consistent collection of congestion rents from exports  
7 over the years, and I will accept that the amount varies  
8 you know, somewhat significantly year to year depending  
9 upon market conditions. But it is a typically range  
10 between 100 million and 200 million.

11 That trend continues through 2021, that information is  
12 in the appendix tables. It is -- it's about 114,  
13 115 million in 2021, and I would note that in 2022, the  
14 first six months of 2022, we've collected over \$200 million  
15 in congestion rents in the first six months, which is  
16 actually not just consistent with the historical trend, but  
17 is exceeding the historical amounts of congestion rents  
18 collected.

19 So there is a proven track record of collection of  
20 congestion rents, and we would expect that to continue  
21 while Ontario remains a net exporter. And when we think  
22 about the conditions that need to be in place for Ontario  
23 to be a net exporter, I would refer back to the chart we  
24 looked at earlier in the Power Advisory report that shows  
25 Ontario's share of base load supply being significantly  
26 higher than our neighbouring markets.

27 So that -- for me, that is a strong indication that  
28 while there is a big differential in the base load mix of

1 Ontario with our neighbours, there will be many hours when  
2 Ontario has a low cost marginal supply available to export.  
3 It could be under SBG conditions or just under normal  
4 market conditions, but low cost marginal supply that is  
5 available for export which in turn gives us confidence that  
6 the historical trend of congestion rents is likely to be --  
7 likely to be maintained in the future.

8       Although as we say in our response, it would be very  
9 difficult for us to pinpoint with precision a specific  
10 amount. We can really just highlight the historical trend  
11 and refer to, you know, the supply mix in Ontario verses  
12 our neighbours to directionally suggest that congestion  
13 rents in future years are likely.

14       But as I said earlier, trying to pinpoint and do an  
15 economic forecast (a) would be difficult, and (b) isn't  
16 something that the IESO would provide.

17       MR. PATTANI: Now, for the figure in 27, in IESO's  
18 planning outlook, it shows that exporter energy is expected  
19 to reduce by almost two-thirds over the next few years --  
20 or two-thirds. So available export energy, two-thirds.

21       Given this forecast, can you clarify directionally if  
22 you would expect hours of congestion to decrease in the  
23 future, just given the forecast? I mean, it's a  
24 forecasting in your position.

25       MR. CHAPMAN: Yes. So I would suggest that that  
26 forecast is for planning purposes. It is to allow us to  
27 understand, you know, future supply demand conditions and  
28 where we might see shortfalls in capacity and energy needs.

1 It is not, in our opinion, a forecast of actual market  
2 conditions in those years.

3 As indicated in response to previous questions, actual  
4 market conditions will result from a multitude of factors,  
5 not least decisions that will need to be made between now  
6 and when those new resources come into service, and  
7 depending on the type of resource we could still see  
8 significant volumes of exports.

9 And based on the supply mix that we have and the  
10 decisions that have been made, for example, refurbishment  
11 of the entire nuclear fleet, and we're going to maintain a  
12 significant hydroelectric fleet of baseload hydroelectric  
13 facilities, we're going to continue to have significant  
14 megawatts of baseload generation that will be, as I  
15 mentioned earlier, producing at a low marginal cost  
16 relative to our neighbours, and those would be a source of,  
17 you know, competitive exports and drive for future  
18 congestion rents.

19 MR. PATTANI: But I guess what I am trying to say is,  
20 as far as the Board is considering this ETS rate, suppose  
21 the Board were to seriously consider ICP as a replacement  
22 for ETS, as some people have suggested. For them this  
23 figure of 27 is the only solid data that they have. The  
24 rest of the things is what you're saying, you know, what  
25 can happen. They don't have any solid base to decide on,  
26 should we adopt ICP in place of ETS.

27 MR. CHAPMAN: Yeah, so I'd go back to my point  
28 earlier. The planning data that has been published is not

1 a forecast of actual market conditions. So I think it  
2 would be wrong to interpret that as, you know, a bit of a  
3 crystal ball to say this is the volume of exports that we  
4 might have in the future.

5 That is not the purpose of the planning documents. It  
6 is to help us understand what those future challenges are.  
7 You know, if you look back at previous planning documents,  
8 people didn't expect us to be in the market conditions that  
9 we're in today. We didn't plan for exports of the volume  
10 that we did, but despite the best planning at the time,  
11 decisions got made, market conditions change, and then  
12 based on the supply mix we're in the supply situation that  
13 we are today, and that's likely to continue to play out  
14 over the next decade, based on our structural makeup of our  
15 fleet in Ontario with such a high share of baseload  
16 resources relative to our neighbours. We're not going to  
17 lose nuclear, we're not going to lose the hydro. We'll  
18 likely, you know, maybe even add additional wind  
19 generation.

20 So it is hard to see where reductions in that baseload  
21 supply, aside from the Pickering retirement, are going to  
22 come from, which means that throughout the decade Ontario  
23 is still going to be a relatively low-cost marginal  
24 producer -- cost producer of power relative to our  
25 neighbours. So it is logical to assume that we will  
26 continue to be a strong exporter.

27 That's not to say there won't be periods when we will  
28 be importing from our neighbours, particularly during, you

1 know, peak periods. We almost certainly will see an uptick  
2 in imports, but that doesn't come at the expense of  
3 exports. We can both be a heavy net exporter -- a heavy  
4 exporter and a significant importer. It is not that we  
5 will be one or the other.

6 MR. PATTANI: Okay. Thank you. I think for the next  
7 item you probably have a similar answer, but I still want  
8 to take a crack at it, because there is another thing in  
9 it. I would like now to turn your attention on avoided  
10 system costs in the table 1.

11 MR. CHAPMAN: Okay.

12 MR. PATTANI: So it is correct that 153 million  
13 dollars listed in the avoided system costs is reflective of  
14 the sellings from reduced nuclear and renewable  
15 curtailments that would otherwise have occurred? That's  
16 what the footnote says there, right?

17 MR. CHAPMAN: That's correct, yes.

18 MR. PATTANI: And that is a gross amount. It is not  
19 showing whether it is going to change because of the rate  
20 here or there. What you're saying is this is how much the  
21 avoided system cost was?

22 MR. CHAPMAN: Yes. That is based on actual payments  
23 to the generators. We did an estimate of the volumes. So  
24 it is still an estimate. But it is using actual rates that  
25 are paid to the generators.

26 MR. PATTANI: Okay. Now, for the assessment for the  
27 current proceeding, or the assessment just for debate on  
28 the current proceeding, is it fair to say that the related

1 avoided system costs would be impacted by two variables?  
2 And when I use the term "relative", now I'm using relative  
3 in terms of one ETS rate or another ETS rate, whether it's  
4 zero or two or four or whatever.

5 The relative avoided system costs would be impacted by  
6 two variables, first the amount of surplus baseload  
7 generation in the system; and second, the actual impact of  
8 ETS rate on the portion of said generation that ultimately  
9 succeeds in being exported. So those are the two main  
10 variables.

11 MR. CHAPMAN: On the first point, I personally would  
12 say it would move away from just saying surplus baseload  
13 generation, and it is the amount of low-cost supply in the  
14 province, because it is not just periods of time when the  
15 Ontario price goes negative, which is sort of what we  
16 assume as SBG, but we also experience many hours when the  
17 HOEP or the marginal price is five dollars, six dollars,  
18 ten dollars.

19 Essentially, it's the percentage of hours that Ontario  
20 will experience low-cost -- low marginal cost sources of  
21 supply that will be a strong driver of those system costs,  
22 and then your second point is correct.

23 MR. PATTANI: So I am just referring specifically to  
24 the avoided system costs. I agree with you that if we  
25 still have low-cost energy there will be more exported and  
26 so on, there is no doubt about it, but by definition the  
27 avoided system -- the amount of avoided system costs  
28 available and weighted surplus baseload generation will

1 mean the avoided system costs in this context.

2 MR. CHAPMAN: Well, if we -- so I guess there are  
3 periods where we would have low-cost generation operating,  
4 but in the absence of the exports we would have to curtail  
5 it. That might not just be during periods of SBG, it might  
6 just be under regular market conditions.

7 MR. PATTANI: Okay. I think we are probably going  
8 around in circles here. But another thing I would like to  
9 mention is again figure 23 in your planning outlook shows  
10 that surplus baseload generation is going to decrease by  
11 more than three-quarters over the next few years.

12 With that in mind, would you expect to see a decrease  
13 in the continue of surplus generation that would need to be  
14 exported to realize the avoided system costs?

15 MR. CHAPMAN: Personally I don't think it has a big  
16 impact, whether it is SBG or just low-cost generation.  
17 Ultimately we would just -- we will be exporting that  
18 baseload, hydro and nuclear and wind, at prices of between  
19 -- whether it is minus 10, zero, 5, or 15, it is still  
20 competitive compared to Michigan at 35, 40 dollars.

21 And so even if we -- even if Ontario moves away from  
22 SBG completely, that won't necessarily impact export flows.  
23 We still have plenty of generation that operates at low  
24 marginal cost, and it will be competitive with our  
25 neighbouring markets even without any SBG.

26 MR. PATTANI: Yes. But the line item that is called  
27 avoided system cost is to do with SBG. Line item to do  
28 with avoided costs is not the generation that is operating



1 at lower than the marginal cost.

2 MR. DUFFY: Mr. Pattani, I think you have asked this  
3 same question several times, and you have gotten the same  
4 answer. You may not agree with it, but I think that is Mr.  
5 Chapman's answer, and we would ask you to move on.

6 MR. PATTANI: Okay. And I will just -- I guess I  
7 won't ask you now to again comment on how the ETS rate  
8 would affect it, because you already answered it the other  
9 way, so we will not go there.

10 MR. CHAPMAN: Okay.

11 MR. PATTANI: Okay. Now I am going to go to the  
12 impact of exports on energy market. You know, your table 1  
13 is -- shows all the benefits that you claim occurred to the  
14 domestic customers. Of course it doesn't show the relative  
15 impact of the benefits if the rates were higher or lower  
16 for ETS, but let's park that aside.

17 And it just shows the benefits from those line items  
18 that you've got. Some of them are questionable, as far as  
19 I'm concerned. Nonetheless, there is one important item  
20 that you have not addressed in this table, and that is that  
21 this benefit of exports on the energy market prices.

22 Now, when I am saying this I wish to not, for the  
23 record, again -- I did that in my interrogatories, too --  
24 that my questions are not at all intended to suggest that  
25 exports should be discouraged. I love exports; it is good  
26 for Ontario. But that is not the intent that I discourage  
27 them. I just want to make sure that we have data that is  
28 accurate and understandable to assess the issue that we

1 have today.

2 Now, in IR I-6-11, IESO declined to provide further  
3 analysis on the impact of exports on energy market prices,  
4 and it questioned the value of this request.

5 So I would like to first explain why I am asking that  
6 question. So I am assuming there is no debate on the fact  
7 that if the demand is higher, the market price is higher.  
8 There is no debate on that. That comes from all of the  
9 economic books and in your publications that IESO here  
10 have.

11 Do you agree if the demand is higher, the market price  
12 would be higher?

13 MR. CHAPMAN: As a general rule, yes.

14 MR. PATTANI: So now I would like to explain briefly  
15 why I requested this.

16 So the Ontario demand in the year 2021 was 133.8  
17 terawatt-hours. During the year, the weighted average of  
18 the hourly energy price or HOEP for the 12-month period was  
19 2.8 cents per kilowatt-hour.

20 In a hypothetical scenario where exports cause HOEP to  
21 on average, and I mean average, be five percent higher than  
22 it would otherwise have been, then domestic customers would  
23 pay about 0.14 cents per kilowatt-hour more. And this  
24 translates to 180 million dollars in total than they would  
25 have paid if there were no exports.

26 Now, needless to say, there will be some counter-  
27 balancing effect due to the partial reduction in global  
28 adjustment, and that will change as we go forward and so

1 on.

2 So with this context, whether you agree with the value  
3 of the interrogatory that I submitted there in I-6-11, is  
4 it possible for you to, now that I have explained the  
5 value, to provide the response to the interrogatory? To  
6 understand the impact.

7 MR. CHAPMAN: I think your line of thinking was very  
8 similar or the same as our line of thinking, in that, you  
9 know, in Ontario's market, it is largely a fixed cost  
10 system.

11 So at the present time, if you see an increase in the  
12 wholesale energy price, there is a corresponding decrease  
13 in the global adjustment paid by consumers.

14 Now, it is not exactly one to one and different  
15 consumers pay in slightly different ways, but ultimately it  
16 is very close to one and there is not a huge difference in  
17 how consumers are impacted, so -- based on the increase in  
18 the HOEP.

19 So we certainly agree increased demand should have an  
20 impact on the market price, but there is an almost 100  
21 percent offset with the GA when it comes to consumer bills.

22 So for that reason, we didn't think there was a  
23 material cost associated that would be worthy of including  
24 in a table.

25 MR. PATTANI: And you didn't even -- I guess you  
26 didn't show it in that way, but what I am going to do in  
27 the future? I mean, I guess a lot of your literature is  
28 indicating that the nuclear retirement is coming up. Many

1 of the contract generation is going to be expiring the  
2 contracts.

3 So I am assuming that will change the amount of global  
4 adjustment required, and we will probably start getting  
5 into a better market than what we have now. Right now it  
6 is not a market. It is a central planned market.

7 So once we get into the real market, the global  
8 adjustment should come down. So it is going to be where  
9 you will not have a -- you know, one to one countervailing  
10 effect.

11 MR. CHAPMAN: Again, I don't disagree with your line  
12 of thinking. We are moving to a better market design with  
13 better price signals.

14 But I am assuming that we will persist with the global  
15 adjustment mechanism in some shape or form for the  
16 foreseeable future, because we have to pay the generators.

17 So I mean that does insulate consumers from wholesale  
18 price, I mean that is the large reason we have it is to  
19 insulate consumers from the wholesale market price  
20 volatility.

21 The wholesale market price is still very important  
22 from an operational perspective, because they allow us to  
23 make -- they send better price signals, so we end up with  
24 more efficient scheduling and dispatch.

25 So we actually hope to see some efficiencies and  
26 savings from those better price signals. But ultimately,  
27 in the context of this discussion, I don't see -- we don't  
28 see any increased costs associated with export demand

1 impacting wholesale prices.

2 MR. PATTANI: So this interrogatory, all it is asking  
3 you is for data for 12 hours in February and 12 hours in  
4 August, taking data. You cannot provide that?

5 MR. DUFFY: Mr. Pattani, I will step in there. We are  
6 not going to provide this data. We have explained why.  
7 Mr. Chapman has given you some context around that. And  
8 that position is not going to change.

9 MR. PATTANI: Okay. That's good. Let's go now to the  
10 next issue I would like to address, the uplift charges.

11 MR. SIDLOFSKY: Sorry to interrupt, Mr. Pattani. Your  
12 estimate was for 20 minutes. We are at just over a half  
13 hour now. Can you just give me an update of your  
14 anticipated timing?

15 MR. PATTANI: My feeling is if there is not much  
16 discussion involved, this should take less than five  
17 minutes.

18 MR. SIDLOFSKY: Okay. That's great. Thank you.

19 MR. PATTANI: So I want to address the application  
20 paid by exports.

21 My request for clarification in this regard is because  
22 IESO is suggesting that most of the uplift cost paid by  
23 exporters should be considered a benefit to domestic laws  
24 and that is the only reason why I am bringing this up.  
25 Otherwise, there is no need to bring it up.

26 Let me start with your IR, I-6-10, where you have  
27 singled out operating reserve and regulation as potentially  
28 not being useful for exports, or not needed by exports.

1           So my question to you is, are these two particular  
2 ancillary services technically required to enable and  
3 ensure successful and reliable operation of the system  
4 include delivery of exports, these two, operating reserve  
5 and frequency regulation.

6           MR. KWOK: Sorry, Mr. Pattani, what I heard the  
7 question from you was is operating reserve and regulation  
8 required to support exports, or just for --

9           MR. PATTANI: No. Is it required to enable successful  
10 and reliable operation of the system, including exports?

11          MR. KWOK: Yes. So you are required to maintain  
12 operating reserve regulation and a host of other ancillary  
13 services as part of our standards that we have to abide by.

14          MR. PATTANI: So they're required for the  
15 interconnected system, they depend on the system demand.  
16 So why would you say that these are not beneficial to  
17 exports, that these are only for loads?

18          MR. KWOK: I think what we're saying in our evidence,  
19 in the document here is that these are costs that would  
20 otherwise, you know, would be fully borne by loads,  
21 domestic consumers in Ontario.

22          And having exporters on the system means they're there  
23 to also shoulder some of those costs and they're sharing in  
24 the costs.

25          MR. PATTANI: My question is not whether one should be  
26 permitted to free ride or the other -- I'm not talking  
27 about free riding at all here, but let's leave the free  
28 riding beside.

1 My question is whether technically exports do benefit  
2 from ancillary services.

3 MR. KWOK: I think that generally all market  
4 participants benefit from a well functioning and reliable  
5 system, and that is part of the reason why we allocate  
6 these, you know, these variable costs uplift charges to the  
7 users of the system.

8 MR. PATTANI: And, you know what, I am going to leave  
9 this here. I have other questions on this topic, but I  
10 will leave it.

11 I am going to go to the last item in IR I-1-1. In the  
12 IR I-1-178, part G, I believe.

13 You provided a list which is a mix of time-based and  
14 functional based uplift services.

15 MR. KWOK: Hmm-hmm.

16 MR. PATTANI: I just want to identify first of all  
17 before I go to the next item is that this does not  
18 explicitly identify some of the functional uplifts and  
19 these are quite significant functional uplifts, such as  
20 operating reserve and energy losses in the hourly category.  
21 And it also doesn't identify what it supports and  
22 regulation services. So these are not listed in there.  
23 I'm not questioning that. It is just indicating it is not  
24 in there.

25 Now, I also wish to know the link provided in footnote  
26 4 of the IR, and I think SEC perhaps, Mr. Rubenstein, I  
27 don't know if he met the investigation or not. The link in  
28 that footnote 4 in the IR, it gives disparate data about

1 the ancillary services costs. For example, on one hand it  
2 shows how much was paid to providers of the operating  
3 reserve on a daily basis. On the other hand it shows how  
4 much uplift charges were levied on a unit energy basis.

5 So what I am suggesting is that to assess the merits  
6 of IESO's characterization of exports' uplift payments as  
7 benefits to domestic laws, if we wish to continue to have  
8 that argument, to assess the merits of that and to address  
9 the Board's IR I-1-1, I would like to suggest that IESO  
10 take an undertaking to provide a brief summary of rationale  
11 for each of these functional uplift services and provide a  
12 like-for-like summary of the costs in dollars or as a  
13 percent of these functional components for any month or  
14 year.

15 MR. DUFFY: Mr. Pattani, I will note that there is no  
16 mystery over what these are. Data is published about them.  
17 I don't know, Mr. Chapman, Mr. Kwok, if you have anything  
18 further you want to add? I would have thought the answer  
19 to your question can be found on the IESO's website.

20 MR. PATTANI: Okay. That's fine. So can you provide  
21 -- can you please provide the summary data so that the  
22 Board can decide if you are right that exports are  
23 benefiting the domestic laws in the uplift charges, or you  
24 remove that argument.

25 MR. DUFFY: So again, we are not here to make -- you  
26 are not here to make demands about what argument we remove.  
27 If you have a specific question -- I don't know if Mr.  
28 Chapman or Mr. Kwok understood the question. I am not sure



1 I did. Now is the time you can ask them. And we can  
2 respond.

3 MR. PATTANI: Okay. I guess we will let the Board  
4 decide the rightfulness of this, and I will end my  
5 questions here. Thank you very much, gentlemen.

6 MR. SIDLOFSKY: Mr. Pattani, thank you.  
7 Mr. Vellone, APPrO.

8 MR. VELLONE: Thank you, Mr. Sidlofsky. In light of  
9 the request to shorten some of the questioning where  
10 parties have similar interests, I am going to forgo my  
11 questioning and allow the next intervenor to go, just to  
12 give you back time in your day.

13 MR. SIDLOFSKY: Thanks for that. I appreciate that.  
14 I imagine other people do too.

15 We will move on to Pollution Probe, Mr. DeVenz.

16 **EXAMINATION BY MR. DEVENZ:**

17 MR. DeVENZ: Thank you. Good afternoon, panel. My  
18 question is related to OEB Staff interrogatory 34J, if we  
19 could bring that up. So in the response it talks about a  
20 potential disadvantage to -- and this is in the case where  
21 the ETS rate were to be set to zero -- a potential  
22 disadvantage of relying on the ICP is that when there is no  
23 congestion -- yeah, in periods where there is no congestion  
24 you are not going to generate any revenue.

25 So that is really where I am going to be coming from,  
26 but I want to set the table a bit on this, and so I  
27 understand from your filed evidence that, you know, you  
28 have outlined the benefits to savings, to operating costs,

1 and also the increase in the ICP that would offset any  
2 reduction in loss of the ETS.

3 So, you know, in the case both Power Advisory and  
4 yourself has made is directionally, as you said, Mr.  
5 Chapman, earlier, that directionally they're aligned.  
6 They're the same.

7 And you also indicated earlier, Mr. Chapman, that the  
8 IESO is -- you know, when we do have congestion, that the  
9 IESO is confident that they're maximizing the value of the  
10 inter-tie, you know, using the market-based approach,  
11 collecting whatever the market will bear, and, you know, in  
12 that particular situation exporters are competing amongst  
13 themselves.

14 We're all good? We're all in agreement?

15 MR. CHAPMAN: Yes. Very good summary.

16 MR. DeVENZ: Okay. So now let's say in the case where  
17 the -- oops. I've -- yes. In the case where the ETS rate  
18 has been set to zero -- and so my question is really around  
19 the periods of non-congestion, and in that particular case  
20 exporters are not now competing alongside Ontario  
21 consumers, and they essentially are paying the marginal  
22 cost of supply.

23 And earlier I think you threw out some numbers where,  
24 you know, HOEP could be zero or five dollars and trading in  
25 Michigan at upwards of \$35, so there is a huge economic  
26 driver.

27 The key point is that they're able to buy at the  
28 marginal cost of supply. And Ontario consumers,

1 ratepayers, they end up paying the balance of the fixed  
2 supply cost through the global adjustment.

3 And as I understand it, exporters do not make any such  
4 contribution to the fixed cost other than I guess the  
5 uplift charges.

6 And so -- and the other thing too is that if -- at a  
7 zero ETS exporters would not make any payment for the  
8 transmission system other than what I have just mentioned,  
9 the uplift charges.

10 So to my mind there's two benefits to exporters during  
11 periods where there is not -- no congestion and ETS rate,  
12 assuming the Board would set it to zero. One, they're able  
13 to buy supply at the marginal cost of supply, and they  
14 really are paying -- the only contribution they're making  
15 to transmission costs is really just through the uplift  
16 charges.

17 We're all in agreement with that?

18 MR. CHAPMAN: Actually, if you don't mind I would like  
19 to -- I don't think from the IESO's perspective it is not  
20 quite correct.

21 I think the traders would love the opportunity to buy  
22 at five and sell at 20. In fact, anybody would love the  
23 opportunity to buy at five and sell at 20. The problem is  
24 we have a very active, competitive trading community in  
25 Ontario, and they all see the same opportunities.

26 So what happens is they see the trade. Buy five; sell  
27 at 20. And then they compete with each other for the  
28 opportunity, and the next trader says, okay, I'm going

1 to -- I am willing to pay ten, and the next one says 15,  
2 17, 18, and then the market -- the inter-tie zonal price  
3 that the successful trader pays ends up being, you know, 18  
4 dollars.

5 So it isn't the case that there are many hours, if any  
6 hours at all, where those large margins exist for traders  
7 to take advantage of.

8 Typically, the traders compete those margins away for  
9 the benefit of ratepayers, because we collect that premium  
10 in the congestion rents. So that is the only caveat I  
11 would add to your --

12 MR. DeVENZ: Right. And I hear you, and, you know, I  
13 understand that during periods of congestion it makes the  
14 arguments that you put forward and Power Advisory put  
15 forward that during those periods of congestion, you know,  
16 you're maximizing exports and you are maximizing value to  
17 the system.

18 My question is really on the -- during the periods  
19 where there is no congestion. So during periods where  
20 there is no congestion, that's really where I am looking to  
21 hone in, and I am really wanting to ask -- and that's  
22 assuming the OEB were to set an ETS rate of zero, and  
23 during periods of no congestion, do you believe -- to your  
24 point earlier about maximizing the value of inter-tie  
25 assets, do you believe there could be an opportunity to  
26 further maximize the net benefits to ratepayers with some  
27 mechanism that is triggered when the ICP falls to zero?

28 MR. CHAPMAN: So maybe I need to clarify. A line

1 becomes congested as a result of the traders competing on  
2 the line. Like, it's not as a result of other market --  
3 it's -- it's the traders competing. They're the ones that  
4 actually congest the line.

5 So if there's an uncongested line --

6 MR. DeVENZ: Right.

7 MR. CHAPMAN: -- flowing power, it means that there  
8 was almost certainly no price arbitrage opportunity between  
9 Ontario and the same jurisdiction. Like, the price might  
10 be five dollars in Ontario, five dollars in New York. Why  
11 is something going to trade? The line isn't congested. It  
12 is only when the price difference goes up that the traders,  
13 you know, smell an opportunity, and then they compete, and  
14 then that activity congests the line, and that is when we  
15 generate the ICP.

16 So I think we already have a mechanism that maximizes  
17 the value. It is hard to think of another mechanism that  
18 could derive the same amount of benefits, since the  
19 existing one extracts everything that the traders are  
20 willing to pay on an hour by hour basis.

21 If we try to go to a higher cost, we would see a drop  
22 in trading volumes.

23 MR. DeVENZ: So I understand when it is congested that  
24 you generate the, you know, the congestion pricing, I  
25 understand that.

26 Is there a situation where there -- let's say in an  
27 inter-tie, there is 6,000 megawatts of capacity and there  
28 is 3,000 megawatts of power that is being exported. Is

1 that situation -- because what I think I was hearing is  
2 it's either zero or it is congested. I am asking about --  
3 go ahead.

4 MR. CHAPMAN: There's times when an inter-tie -- we  
5 have about 6,000 in total, but on a line let's say it is  
6 1,000 megawatts, if the prices aren't there, it may only  
7 flow half of that capacity or a third of that capacity.  
8 But that is because of the economics.

9 MR. DeVENZ: Hmm-hmm. Okay. So ultimately, I will  
10 still put that same question. During that period where it  
11 is not congested and there is exporting flows, and in that  
12 particular case, the only fee -- assuming the Board sets  
13 the ETS to zero, the only fee would be the uplift charges.  
14 Do you believe that just going to zero and leaving the  
15 uplift charges, that would maximize the value to  
16 ratepayers?

17 MR. CHAPMAN: That and the avoided system costs from  
18 the exports.

19 MR. DeVENZ: Right. So there is no -- there would be  
20 no -- there is no incremental value to looking to generate  
21 additional revenue from those exports during a period of  
22 non-congestion?

23 There is no -- essentially, we're not leaving any  
24 money on the table? That is ultimately my question.

25 MR. CHAPMAN: I think we're confident we're not,  
26 because if we have a charge like a tariff or fixed charge  
27 that levies, we will just see -- and as the Power Advisory  
28 analysis shows, traders are very sensitive to prices and a

1 small cost, extra cost or cost at all can potentially  
2 result in lower trading volumes. And then we lose the  
3 operability benefits that we rely on as the system operator  
4 from though those flows. We have to potentially make  
5 curtailments to generators in Ontario.

6 MR. DeVENZ: Okay. That's all of my questions, thank  
7 you.

8 MR. SIDLOFSKY: Thank you. Mr. DeVenz, thank you very  
9 much. We will move on to Anwaatin.

10 MR. MCGILLIVRAY: Thank you, Mr. Sidlofsky. Jonathan  
11 McGillivray, counsel for Anwaatin. Based on the questions  
12 of the prior intervenors, we don't have any further  
13 questions for this panel. But thanks.

14 MR. SIDLOFSKY: That is a good thing I didn't turn my  
15 camera and mic off. Thank you.

16 AMPCO, Ms. Grice. I think you have an announcement,  
17 too?

18 MS. GRICE: I do. I have a similar situation where  
19 SEC asked most of AMPCO's questions, but I do have one  
20 follow-up question.

21 **EXAMINATION BY MS. GRICE:**

22 MS. GRICE: Can we please turn to AMPCO 1, attachment  
23 1 -- I'm sorry, what I am saying? OEB Staff 1, attachment  
24 1, I'm sorry. It's the Excel spreadsheet.

25 So in the spreadsheet, you have -- at tables 13 to 16,  
26 you provide revenue volume and number of hours of ICP at  
27 each inter-tie at various values.

28 Would you be able to provide a similar table, but with

1 the ICP greater than or equal to \$6.54?

2 MR. CHAPMAN: Yes.

3 MS. GRICE: Okay. Thank you, that is my only  
4 question. I appreciate it. Thank you.

5 MR. KWOK: May I just clarify, though, Ms. Grice? Was  
6 the \$6.54 tied to the -- can you just confirm the  
7 significance of the 6.54 because I think the OEB  
8 questioning about the \$6.54 subtracted the \$1.85 and ended  
9 up with the 4.69.

10 MS. GRICE: Just one moment, please.

11 MR. RUBENSTEIN: Ms. Grice, would you like me to  
12 clarify?

13 MS. GRICE: I would very much like that, thank you.

14 MR. RUBENSTEIN: This is a question I missed. I had  
15 asked, Ms. Grice, so I apologize. The \$6.54, the  
16 significance is it's the highest amount in the Elenchus  
17 report.

18 I understand what the Board was trying to do taking it  
19 out, but I would like to essentially see what ICP revenues  
20 were at that amount, above that amount.

21 MR. DUFFY: That would be that plus the existing 1.85,  
22 right?

23 UNKNOWN SPEAKER: No, no.

24 MR. RUBENSTEIN: Yes. All right. Now I take your  
25 question. You are right. Now I understand. Never mind.  
26 I don't think the question is required.

27 MR. SIDLOFSKY: So we will move on then. CME?

28 MR. POLLOCK: Thanks, Mr. Sidlofsky. I think Mr.



1 Harper capably covered everything that I wanted to talk  
2 about, so I don't have any questions for this panel.

3 MR. SIDLOFSKY: And finally, Mr. Pietrewicz, Board  
4 Staff.

5 MR. PIETREWICZ: Thank you, Mr. Sidlofsky. Good  
6 afternoon, panel. Good afternoon, Mr. Chapman.

7 MR. CHAPMAN: Nice to see you.

8 MR. PIETREWICZ: You, too, thank you. I also have few  
9 questions, most of them addressed and some through  
10 undertakings, so I will try to make it quick.

11 **EXAMINATION BY MR. PIETREWICZ:**

12 MR. PIETREWICZ: The first one I would like to ask you  
13 really is about a definition, just to get some clarity  
14 about a word that has been used a couple of times in the  
15 interrogatories, in the evidence, and I think your position  
16 to clarify what word is the right word to be using here.

17 For example, in response to APPrO 7, that is page 376  
18 out of 383 in the big, you know, compendium there.  
19 Elenchus -- we see Elenchus says that the IESO considers  
20 exporters to be a curtailable rather than interruptible  
21 class, and it goes on to talk about that.

22 And elsewhere -- you don't have to pull it up, but  
23 elsewhere, Power Advisory said something to the effect of  
24 export customers are interruptible.

25 So really the question that I want to pose to you guys  
26 is, can you please help us by clarifying the terminology  
27 here? (A) What is the difference between curtailable and  
28 interruptible, and (B) which ones apply to exporters in

1 Ontario?

2 If you need to do that as an undertaking, that's fine.

3 MR. KWOK: Can you just give us a second to read the  
4 definition?

5 MR. PIETREWICZ: Sure. The basic context here is I  
6 want to make sure we're using the right word when we talk  
7 about this.

8 MR. SIDLOFSKY: Panel, do you want a breakout room or  
9 are you okay?

10 MR. KWOK: It might be great just to break out,  
11 because I want to review what this link to the NERC  
12 definition of interruptible is. It is not our submission.

13 MR. SIDLOFSKY: Sure.

14 [Witness panel confers in breakout room.]

15 MR. KWOK: Mr. Pietrewicz, so we looked at the link  
16 here just to get a better understanding of the -- this NERC  
17 definition. We noted that the link is broken, so it is  
18 harder for us to comment. I think we don't have a  
19 definition of interruptible class at the IESO in Ontario.

20 I think generally what we say is, you know, we do  
21 curtail exports before we curtail domestic load in Ontario.

22 MR. PIETREWICZ: Okay. That is helpful. So you don't  
23 have a definition of interruptible classes, is what you are  
24 saying, and therefore export terms are more -- are better  
25 characterized as a curtailable?

26 MR. KWOK: Yes. We do -- you know, as part of our  
27 operating procedures we will curtail exports [audio  
28 dropout] reliability in Ontario, but we don't have this

1 terminology of "interruptible".

2 MR. PIETREWICZ: Thank you. That's fine. And that  
3 speaks to my next question. You've moved into that.

4 I want to try to -- I want to get your feel for how  
5 exporters are different than domestic loads, how they're  
6 treated differently from an operations point of view.

7 And so -- where am I going with this? Excuse me. Oh,  
8 yes. On OEB Staff 24, please, if you can turn to OEB Staff  
9 24. There is a statement there from the IESO. There was a  
10 discussion of firm versus non-firm, but the IESO in part B  
11 of OEB 24 said that Ontario does not offer or require the  
12 purchase of different classes of inter-tie transmission  
13 service.

14 Let me know once you are there, because I have a few  
15 quick questions on that.

16 MR. KWOK: Sure. We're there.

17 MR. PIETREWICZ: So the first question is, just for  
18 clarification, are you saying here that there are not  
19 different classes of export service when you say it does  
20 not offer or require the purchase of different classes of  
21 inter-tie transmission services? Is that what it means?

22 MR. KWOK: So Ontario -- yeah, in Ontario there is one  
23 class of transmission service offered for exports, which  
24 is --

25 MR. PIETREWICZ: Okay.

26 MR. KWOK: -- you know, in scheduled you get the  
27 service.

28 MR. PIETREWICZ: Thank you. So I read that correctly.

1           The next question is what you were hinting at earlier,  
2 is, however, would you say that exports are treated the  
3 same as domestic loads in the province? Like, for example,  
4 do exports receive different priority of service compared  
5 to domestic load? How would you characterize whether or  
6 not exports are treated the same or differently than  
7 domestic loads in Ontario?

8           MR. KWOK: Well, I think it is a different service  
9 that exporters are getting out of the transmission service  
10 in Ontario. Exporters are interested in getting access to  
11 the inter-tie, essentially trading at the, you know, the  
12 Ontario side of the border to the, you know, the receiving  
13 -- to the receiving end.

14           You know, they do get curtailed sooner, if you are  
15 talking about the operating time frame.

16           MR. PIETREWICZ: Yes, yes.

17           MR. KWOK: Obviously, we prioritize domestic loads  
18 ahead of --

19           MR. PIETREWICZ: And that is my question. Don't  
20 assume it is obvious, hence the question of --

21           MR. KWOK: Oh, sorry.

22           MR. PIETREWICZ: -- prioritize the domestic loads over  
23 the exports.

24           MR. KWOK: Yes. In our operating procedures and as  
25 documented in our marketing manuals on our -- you know, as  
26 part of the market rules, we do prioritize the needs of  
27 domestic loads in the operating time frame above those of  
28 the exporters.

1 MR. PIETREWICZ: And so what that means practically is  
2 that you would curtail exports before you would curtail  
3 Ontario loads, if you had to?

4 MR. KWOK: Yes. If we do face some shortage  
5 conditions or some kind of issue maintaining the  
6 reliability, we will be curtailing exports --

7 MR. PIETREWICZ: Great. Thank --

8 MR. KWOK: -- exporters, I think --

9 MR. DUFFY: Mr. Pietrewicz, can I ask you, to make  
10 sure we have a good transcript, that you let the witness  
11 finish their answer fully before you ask the next question?  
12 We would appreciate that.

13 MR. PIETREWICZ: Thank you. I think that was Mr.  
14 Duffy? I didn't see you.

15 MR. DUFFY: Yes. Sorry, I thought I was on video. We  
16 would ask that you, as I said, let the witness finish fully  
17 the answer before you ask the next question so we have a  
18 clear transcript of the response.

19 MR. PIETREWICZ: Certainly. Moving on to OEB 36,  
20 please. Here OEB Staff asked about the relationship  
21 between the ETS and the ICP, and the IESO flagged the  
22 potential for disproportion, and this is my words,  
23 disproportionate or perhaps asymmetrical relationship at  
24 some point.

25 And I would read the quote, and I think, Mr. Chapman,  
26 you talked about this a little bit earlier today, but I  
27 want to underscore it. The quote is that:

28 "The IESO's response was that there is a strong

1           inverse relationship between the ETS rate and the  
2           ICP, but you wouldn't characterize it as a  
3           dollar-for-dollar proportional relationship."

4           And the crux here for me is that, for example, higher  
5 ETS rates have a disproportionately large impact on [audio  
6 dropout] economic exports from occurring, and you go on,  
7 and you reference the idea of curtailments, and you  
8 reference the idea of undesirability from an operational  
9 and market participant perspective.

10          So my first question is, by curtailments do you also  
11 include in that shutdowns potentially at some point?  
12 Perhaps nuclear shutdowns?

13          MR. CHAPMAN: I mean, potentially it is very much, if  
14 we can do anything to avoid such a control action, we would  
15 do everything we can to avoid such a situation, but it does  
16 potentially include shutdowns.

17          MR. PIETREWICZ: Thank you. And from your  
18 perspective, what's so bad about shutdowns? Would you say  
19 there is both an economic and reliability dimension to  
20 them?

21          MR. CHAPMAN: I would agree with both of those points.  
22 Most nuclear units, the ones in Ontario, particularly, you  
23 know, the Darlington Pickering units, are not designed to  
24 be manoeuvred per se. And when the unit is taken down, I  
25 mean, there is a technical procedure to take them down  
26 which isn't without challenge and risk, and as I mentioned  
27 earlier, it takes a long time to restart a nuclear unit  
28 once it's been taken down. A whole series of procedures

1 need to happen, and then it has to sync to the grid, and  
2 that can take a long time. When you are taking out a large  
3 nuclear unit, you would have to find replacements sources  
4 of supply in the interim.

5 So that's the economic piece of it, but there is also  
6 the technical challenge of actually just taking down  
7 nuclear units that weren't really designed to be switched  
8 on and off, and while it can be done and it is done very  
9 safely by the nuclear operators, you know, you want to  
10 avoid any human error or any unnecessary wear and tear on  
11 those types of facilities.

12 MR. PIETREWICZ: Thank you. And are nuclear shutdowns  
13 a regular occurrence in the province?

14 MR. CHAPMAN: No. They're not a regular occurrence,  
15 no.

16 MR. PIETREWICZ: And would you say that when they do  
17 occur that export quantities are the main determinant of  
18 whether or not nuclear units are shut down?

19 MR. CHAPMAN: Are the export quantities the main  
20 determinants? So do you mean the inability to export?

21 MR. PIETREWICZ: That's right.

22 MR. CHAPMAN: That results in a nuclear shutdown?

23 MR. PIETREWICZ: Yes.

24 MR. CHAPMAN: If we are not able to export the excess  
25 power that is on the grid through curtailments -- and as we  
26 would curtail other resources ahead of the nuclear -- then  
27 that is an action we would have to take because there are  
28 insufficient exports to avoid such a measure.

1 MR. PIETREWICZ: I've got it. Thank you. So you are  
2 not saying for sure that nuclear units will be shut down if  
3 the ETS rate is increased. You're just saying that, you  
4 know, the more constrictions we put on the release valves  
5 of our inter-ties, the more we do that, all else being  
6 equal, would you say that potential increases in the need  
7 to curtail will happen and that at some point, curtailments  
8 could involve nuclear shut downs?

9 MR. CHAPMAN: Yes. I think as I said earlier in a  
10 response, we increase the risk or likelihood of having to  
11 take these measures. It doesn't mean that we will have to  
12 undertake these measures necessarily, but we certainly  
13 increase the likelihood and the risk that we won't see the  
14 same volumes of exports and we will by default have to take  
15 these control actions instead.

16 MR. PIETREWICZ: Right. So it is a risk that you are  
17 flagging. You haven't declared that it is a high  
18 probability yet. Is that fair? But certainly you flagged  
19 it as a risk.

20 MR. CHAPMAN: It depends. I guess that is a tricky  
21 one, high probability. And what do you mean for example by  
22 high probability? Something that could occur once a year  
23 or on a regular cycle?

24 I'm not sure we're going to get too far necessarily  
25 trying to pinpoint exactly what we mean by high  
26 probability. But we saw when we had significant oversupply  
27 issues 2017-2018 where we did have to take these types of  
28 measures on a relatively frequent basis.



1 I don't have the numbers, but multiple occasions in  
2 that time frame, and it is not just -- it's not just in  
3 terms of overall supply conditions.

4 There could be other instances of particular times of  
5 the year, for example, where we have an oversupply during  
6 freshout for example, and we have very low domestic demand  
7 Overnight, and we might be in this situation.

8 So it is really to avoid those situations at all as  
9 opposed to whether they're going to happen one time or 20  
10 times a year.

11 MR. PIETREWICZ: Thank you. I will move on to my next  
12 couple of questions and we will wrap it up.

13 OEB Staff 35, 35C in particular. I want to ask you  
14 about the TRCA account, the TRCA. In 35C, the IESO states  
15 that ICP revenue is returned as part of the transmission  
16 rights clearing account disbursement.

17 And the IESO says that it reviews the rights clearing  
18 account balance on a semi-annual basis, and disburses the  
19 surplus funds when the balance exceeds the reserve  
20 threshold by some amount, or as directed by the IESO.

21 And my question on that one to you is, to your  
22 knowledge, has the disbursement threshold always exceeded  
23 the threshold and therefore has ICP revenue always been  
24 disbursed?

25 MR. KWOK: That's a good question. As part of our  
26 evidence, we did submit kind of a distribution history on  
27 our TRCA disbursements. But I want to note as part of our  
28 evidence we also made some more recent changes to the TRCA

1 disbursement methodology, which has increased -- and that  
2 is outlined in, sorry, in this IR 35 that indicates like we  
3 have increased the proportion of disbursements to domestic  
4 loads relative to consumers.

5 And we have also made changes to our transmission  
6 rights market through the years, as noted in our  
7 submission, that would, you know, ensure that there was  
8 more funding going towards those accounts.

9 MR. PIETREWICZ: Great. And we will get to that next.  
10 Thank you for that, Mr. Kwok. But in terms of the has it  
11 always exceeded the threshold and has it always been  
12 disbursed, I know there is a lot of information out there  
13 on the record. Would you be able to point us to where?

14 I accept maybe you answered this question already, I  
15 just don't recall. If you could please point us, whether  
16 now or in the future?

17 MR. KWOK: Sure. In our Excel spreadsheet -- our  
18 attachment, table 4 has the historical TRCA flows from 2021  
19 to -- it goes back to 2012.

20 MR. PIETREWICZ: Got it. Thank you. That is good for  
21 me. Thanks.

22 Moving along. On 35B, Staff 35B, you kind of hinted  
23 or you mentioned that the TRCA disbursement methodology has  
24 been updated and specifically, you know, before the change  
25 there is a footnote to figure 1 there and it says that  
26 before the change, exporters used to get 13 percent or so  
27 of the TRCA disbursements and since 2021, when the change  
28 happened, exporters have received a smaller share, about

1 two percent. I think that is where I read 1.74 percent,  
2 but in that ballpark, right?

3 MR. KWOK: Yes.

4 MR. PIETREWICZ: You don't have to turn it up because  
5 I want to ask you about behaviour change.

6 But in response to VECC IR 18.2, which is 1.15-18, the  
7 IESO mentioned that looking forward, there would likely be  
8 an element of behaviour change as a result of this change  
9 in disbursement methodology.

10 And I simply wanted to ask you, what do you have in  
11 mind in terms of what kind of behaviour change we might  
12 expect as a result of this change in disbursement  
13 methodology, or perhaps what you have already been seeing  
14 in response to it?

15 MR. KWOK: Yes. Thank you for the question and I  
16 guess that is outlined in our response 18.2, that last  
17 paragraph about the behaviour change.

18 I guess part of the considerations that we took when  
19 we were reviewing these changes through our stakeholder  
20 process in 2019-2020 for the TRCA disbursement methodology  
21 was, potentially the impact that a TRCA disbursement could  
22 impact trader behaviour in Ontario that, you know,  
23 potentially if the trader knew they were going to get some  
24 proportion of their ICP back, they might bid higher in the  
25 markets because they know like -- I'm just using  
26 illustrative numbers, but you know, if they would maybe bid  
27 10 percent more if they knew they would get ten percent of  
28 their money back and that results in kind of a less

1 accurate pricing signal, and if we want to make sure the  
2 pricing signal is kind of reflective of current state  
3 market dynamics and not based off of a kind of a future  
4 rebate somebody might get, it is probably better to refine  
5 that pricing mechanism.

6 So the traders, you know, if we say, okay, well -- you  
7 know, as part of our arrangement the agreed-upon market  
8 rules changes that traders would receive a disbursement  
9 back in proportion to their contribution to the  
10 transmission system, which is the ETS payments it makes and  
11 they roughly pay as you noted over the last, I guess -- I  
12 think the more recent periods, it has been less than two  
13 percent, 1 point something percent, some percent of the  
14 surplus.

15 MR. PIETREWICZ: Thank you. So do you think now that  
16 exporters will pay or will receive a smaller share of the  
17 TRCA disbursement that is less than two percent, now that  
18 exporters will receive a smaller share of the disbursement,  
19 do you think they will bid lower prices into the ICP  
20 market? Do you think this could lead to decreases in ICP  
21 revenue as a result?

22 MR. KWOK: I think it would reflect -- this is my  
23 opinion as the market operator, I think it would reflect a  
24 more accurate -- like the bids would be more reflective of  
25 the current market dynamics and it wouldn't be as  
26 influenced as like -- as like, oh, I am going to spend some  
27 money so down the road -- I will get a kickback down the  
28 road. It creates some more confusing market signals that

1 might not actually end up benefiting anybody. So that is  
2 part of the considerations that we took.

3 MR. PIETREWICZ: I'm sorry, I thought you had  
4 finished. Just to wrap that one that one up before I get  
5 to my final question, do you have a sense of what the  
6 behaviour change will be in the future? Or are you at this  
7 point in a watching and monitoring and, you know, reading  
8 the signals?

9 MR. KWOK: Can you clarify? Can you please clarify  
10 what you mean by behaviour change?

11 MR. PIETREWICZ: Sure. Your response, the IESO's  
12 response says that there will likely be an element of  
13 behaviour change that will affect TRC disbursements, right?  
14 And values, like there is a lot of numbers up in lines 1  
15 through 6 of the paragraph above that, that quote. Right.

16 MR. KWOK: Hmm-hmm.

17 MR. PIETREWICZ: I think your statement starting at  
18 line 8 through 10 says that there will be an element of  
19 behaviour change with respect to those numbers that I have  
20 just described and exporters will -- may have bid or  
21 offered differently under a different disbursement  
22 methodology. And I am simply asking you, do you know yet  
23 how they will behave differently under this new -- under  
24 this new disbursement methodology? Or are you still  
25 figuring it out, still watching people?

26 MR. KWOK: Thank you. Thank you for that  
27 clarification.

28 So when we were stakeholdering these changes to our

1 market rules, this started, I believe, around the 2019 --  
2 definitely in the 2020 time frame. We purposely had a long  
3 lead time for the effective date. These market rule  
4 changes took effect in 2021.

5 And this was done on purpose so that market  
6 participants had the time to kind of process those changes  
7 and adjust their behaviour accordingly to those, you know,  
8 those changing market dynamics.

9 So those changes would already have been incorporated  
10 in today's market, and they should be, you know, reflect  
11 more accurately reflective of, you know, the market  
12 conditions, the current market conditions that they're  
13 trading in.

14 MR. PIETREWICZ: Okay. Moving on to my last question.  
15 It is interrogatory OEB Staff 1, and it is the  
16 attachment 1. It is a spreadsheet.

17 And it is just understanding a little bit about  
18 table 16. And this table 16 describes -- provides a bunch  
19 of handy -- or more information and describes revenues,  
20 volumes, and numbers of hours of ICP at each inter-tie, and  
21 it includes Michigan, Minnesota, and New York numbers, but  
22 just as an illustration I will focus on New York and  
23 Michigan.

24 And what I want to bring your attention to, the idea  
25 that in table 16, for example, if we look at the values for  
26 New York as an example. That is row 237. Row 237. We see  
27 that basically the ICP revenue for New York has declined  
28 since 2018. It's gone down from 40.1 million that is in

1 column D to about 8.4 million in 2021. That is column G.

2 We see a similar trend in Michigan, although not  
3 really. Like, Michigan has stayed the same, more or less.  
4 It has gone down from 103.6 million in 2018 to 99.8 in  
5 2021.

6 And so my basic question to you -- and I haven't  
7 really looked at the Minnesota one. There may be some  
8 changes there as well.

9 My question to you is that, what's going on with  
10 respect to the New York results? Why are they declining,  
11 and do you expect them to stay that way going forward?

12 MR. KWOK: That's a good question. I think as one of  
13 the themes in our response is that we don't forecast market  
14 conditions on an hour-to-hour basis, because that's -- you  
15 know, a lot of this is driven from what is happening in  
16 Ontario, but it is also relative to what is happening in  
17 other jurisdictions.

18 So inter-tie trade is based on what's happening the  
19 next hour, right? And those dynamics, you know, can  
20 fluctuate widely, like, wildly within, you know, the course  
21 of a day, a month, year.

22 We do see these revenues declining from the period of  
23 2017 to 2020, and I think they pick up in 2021.

24 One thing I think my colleague and boss -- my boss  
25 noted was that, you know, for the first six months of this  
26 year we have actually seen a spike in ICP revenues as well  
27 with natural gas prices, and these are caused by, you know,  
28 if you want to attribute them to, you know, the situation

1 in Russia, causing natural gas prices to be very high.

2 So I guess as a system operator we don't have, like, a  
3 very -- you know, we don't have a crystal ball. We don't  
4 know precisely what is happening on an hour-to-hour basis  
5 to forecast what these conditions are. Maybe that is part  
6 of the duty of having dynamic mechanism, is that it is able  
7 to adjust according to whatever the conditions may be.

8 MR. PIETREWICZ: That's fair enough. Thank you. I  
9 appreciate that you can't forecast on an hourly basis years  
10 in advance. I don't even know what I am having for dinner  
11 tonight. I don't expect you to focus on what the ICP will  
12 be in 20 years.

13 But however, looking back, can you tell me anything  
14 about -- I mean, this is no longer a crystal ball. This is  
15 rear-view mirror. Looking back, what's happened between  
16 2018 and 2021 in New York, and similarly what's happened on  
17 the Michigan side, which is, I think, the bulk of the  
18 revenues.

19 And in this table when we compare two numbers they  
20 don't look that huge, but cumulatively there is a sizeable  
21 -- there's a sizeable change or reasonably sizeable change.

22 So can you tell me about what has happened in the  
23 past?

24 MR. CHAPMAN: Maybe I can jump in there, Jason.

25 MR. KWOK: Please.

26 MR. CHAPMAN: What these are -- so these numbers are  
27 actually quite interesting, because they're like a --  
28 they're a record of the supply mix changes that are



1 happening in Ontario and are export markets. And so during  
2 this time period Ontario brought on quite a bit of  
3 renewable generation, but we also saw changes in New York.  
4 They phased out their coal plants, and we saw a real  
5 historic decline in natural gas prices between 2017 and  
6 2021, where prices went, you know, down from five bucks  
7 down to, I think at one point \$1.50, and they have since  
8 rebounded to nine dollars.

9 So those are the types of factors. It is a  
10 combination of supply mix changes, and a large part of it  
11 is fuel prices and changes in commodity costs.

12 And the combination of those two factors influences  
13 both flows and the amount of ICP that is collected. And  
14 you see that dynamic sort of being rolled up and summarized  
15 in the revenue numbers, the ICP that is collected across  
16 these different markets.

17 MR. PIETREWICZ: Okay. I will leave it at that.  
18 Those are my questions. Thank you, panel, for your time  
19 this afternoon.

20 MR. CHAPMAN: Thank you.

21 MR. SIDLOFSKY: Thanks, Mr. Pietrewicz. It is just  
22 after 4:30. I believe that completes the questions for  
23 today. Thank you very much, panel.

24 I am going to close down the technical conference in  
25 just a moment. But just to follow up on Mr. Rubenstein's  
26 request from earlier, maybe we can take a few minutes now  
27 to talk about the upcoming untranscribed meeting of  
28 parties.

1           Thanks very much, panel. And thanks to our reporter  
2 today. We will reconvene tomorrow at 9:30 with panel 5.  
3 And the first questioner will be VECC. Thank you.

4           --- Whereupon the hearing adjourned at 4:33 p.m.

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