



ONTARIO ENERGY BOARD

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**Enbridge Gas Distribution Inc.
Union Gas Limited
EPCOR Natural Gas Limited
Partnership**

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THE ONTARIO ENERGY BOARD

Enbridge Gas Distribution Inc.
Union Gas Limited
EPCOR Natural Gas Limited Partnership

Applications for approval of the cost consequences
of 2018 cap and trade compliance plans

Hearing held at 2300 Yonge Street,
25th Floor, Toronto, Ontario,
on Monday, April 9, 2018,
commencing at 9:31 a.m.

TECHNICAL CONFERENCE

A P P E A R A N C E S

LJUBA DJURDJEVIC LAUREN MURRAY	Board Counsel
JOSH WASYLYK LAURIE KLEIN	Board Staff
MYRIAM SEERS CAITLIN MOUN	Union Gas
DENNIS O'LEARY CRAIG FERNANDEZ	Enbridge Gas
KEN POON	EPCOR
JOHN WOLNIK *	Association of Power Producers of Ontario (APPrO)
TOM BRETT	Building Owners and Managers Association, Toronto (BOMA)
JULIE GIRVAN	Consumers' Council of Canada (CCC)
ROGER HIGGIN BRADY YAUCH	Energy Probe Research Foundation
KENT ELSON	Environmental Defence (ED)
DWAYNE QUINN *	Federation of Rental-housing Providers of Ontario (FRPO)
DAVID POCH CHRIS NEME	Green Energy Coalition (GEC)
JAYA CHATTERJEE *	City of Kitchener

*appearing by teleconference

A P P E A R A N C E S

RANDY AIKEN *	London Property Management Association (LPMA)
NICOLE PETERSON	Low-Income Energy Network (LIEN)
ROBERT WOON	Ontario Sustainable Energy Coalition (OSEA)
MARK RUBENSTEIN	School Energy Coalition (SEC)
SHELLEY GRICE	Vulnerable Energy Consumers' Coalition (VECC)

*appearing by teleconference

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1 Monday, April 9, 2018

2 --- On commencing at 9:31 a.m.

3 MS. DJURDJEVIC: Good morning, everyone, and welcome
4 to the technical conference in EB-file number 2017-
5 0224/0255/0275. My name is Ljuba Djurdjevic. I am counsel
6 for OEB Staff. And with me also, OEB counsel, is Lauren
7 Murray, and on behalf of OEB Staff, Josh Wasylyk and Laurie
8 Klein.

9 This technical conference is convened pursuant to
10 Procedural Order No. 3 issued on February 26th.

11 We will start with appearances, and I will ask the
12 Union witnesses to go first, and then we'll just sort of
13 snake through the rows of the full house we have here
14 today, and then I'll ask for appearances from the folks on
15 the phone, so we'll start with, on the other side.

16 **APPEARANCES:**

17 MS. NEWBURY: Cheryl Newbury. I'm from Union Gas, and
18 I'm the director of gas supply and customer support.

19 MR. GINIS: Harris Ginis, manager of DSM regulatory
20 strategy at Union Gas.

21 MS. FLAMAN: Sue Flaman, director of energy
22 conservation at Union Gas.

23 MR. DANTZER: Steve Dantzer, cap and trade program
24 manager, Union Gas.

25 MR. TROFIM-BREUER: So Francois Trofim, technology
26 innovation at Union Gas.

27 MR. STIERS: Adam Stiers, manager of regulatory
28 initiatives at Union Gas.

1 MS. SEARS: Marion Sears, counsel for Union Gas.

2 MR. BRETT: Tom Brett, acting for BOMA.

3 MR. ELSON: Kent Elson for Environmental Defence.

4 MR. POCH: David Poch for the Green Energy Coalition,
5 and next to me is Chris Neme, who will be available for
6 questioning later.

7 MS. GIRVAN: Julie Girvan, consultant to the Consumers
8 Council of Canada.

9 MS. GRICE: Shelly Grice, consultant for Vulnerable
10 Energy Consumers Coalition.

11 MR. RUBENSTEIN: Mark Rubenstein, counsel to the
12 School Energy Coalition.

13 DR. HIGGIN: Roger Higgin, consultant to Energy Probe.

14 MS. DJURDJEVIC: Sorry, the folks beside you, Mr.
15 Higgin.

16 MR. GAGNER: Chris Gagner, regulatory coordinator,
17 Union Gas.

18 MR. CHARLES: Josh Charles, regulatory coordinator,
19 Union Gas.

20 MS. EVERETT: Lucy Everett, cap and trade advisor,
21 Union Gas.

22 MS. MURPHY: Jennifer Murphy, climate policy and cap
23 and trade compliance senior advisor at Enbridge Gas.

24 MR. O'LEARY: Dennis O'Leary, counsel, Enbridge, and
25 to my right is Craig Fernandez, manager, market
26 development.

27 MR. JOHNSON: Daniel Johnson, supervisor, policy,
28 planning, and analytics, Enbridge Gas.

1 MR. GANNI: Proboster Ganni, program manager, business
2 development, Enbridge Gas.

3 MR. WOON: Robert Woon, counsel for OSEA.

4 MR. JANESE: Dave Janeese, gas supply, Union Gas.

5 MR. LANGSTAFF: Andrew Langstaff, carbon work and
6 specialist, Enbridge Gas.

7 MR. POON: Kenneth Poon, Blackstone Energy Services.

8 MS. FAYLE: Lana Fayle, Enbridge Gas, environmental
9 analyst.

10 MS. BURKE: Alexandra Burke, compliance coordinator,
11 Enbridge Gas.

12 MR. BABILLA: Ken Babilla, with Storage LLP.

13 MS. MOUN: Caitlin Moun, counsel to Union Gas.

14 MS. DJURDJEVIC: Okay. So now we will move to the
15 people on the phone, if they could introduce themselves.

16 MR. AIKEN: Randy Aiken, consultant for London
17 Property Management Association.

18 MR. QUINN: Dwayne Quinn on behalf of FRPO.

19 MS. CHATTERJEE: Jaya Chatterjee, City of Kitchener.

20 MR. WOLNIK: John Wolnik, representing APPRO.

21 MS. DJURDJEVIC: Okay, so for the folks that are on
22 the phone, I'd kindly ask that if you are joining the
23 conversation or leaving, you do that at the breaks, and if
24 you can put your phones on mute when you are not speaking,
25 because we get all the background noise amplified quite
26 loudly in here. So thank you for that.

27 So I understand there have been discussions in advance
28 of today's technical conference about the issues on which

1 parties and OEB Staff wish to examine and the estimated
2 duration and order of questioning.

3 So I assume everybody has that and is -- we are tight
4 on time, and I understand some people have overestimated
5 and then reduced their time a bit, and we will just do the
6 best that we can with the time that we have.

7 There are some exhibits to be filed, for starters the
8 CVs for the Union witnesses, so we will make that Exhibit
9 KT1.1.

10 **EXHIBIT NO. KT1.1: CVS FOR THE UNION WITNESSES.**

11 MS. DJURDJEVIC: And other exhibits, I know there has
12 been some material exchanged over the weekend and last
13 week. We will mark those as exhibits as we proceed through
14 the conference over the next couple of days.

15 Are there any other preliminary issues that the
16 parties wish to address? Okay.

17 So let's dive into our schedule, which appears that
18 our first questioning party is Environmental Defence.
19 That's you, Mr. Elson.

20 MR. ELSON: Yes, thank you.

21 MS. DJURDJEVIC: All right. Go ahead.

22 **UNION GAS - PANEL 1**

23 **Cheryl Newbury**

24 **Harris Ginis**

25 **Sue Flaman**

26 **Steve Dantzer**

27 **Francois Trofim**

28 **Adam Stiers**

1 **QUESTIONS BY MR. ELSON:**

2 MR. ELSON: Good morning. I've met some of you
3 before. Kent Elson, Environmental Defence, and I'll be
4 asking some questions mostly around the topic of
5 incremental abatement, why it wasn't included and the
6 impacts of that.

7 I'd like to start by asking about ED 4, that
8 interrogatory. Is there someone who is doing the screens?
9 Okay, thanks. Perfect.

10 So in this interrogatory -- do you want to pull up a
11 paper copy or are you okay on the screens? Okay. So in
12 this interrogatory we asked you to estimate the value of
13 the lifetime GHG emission reductions from Union's 2018 DSM
14 programs; do you see that there?

15 MS. FLAMAN: Yes.

16 MR. ELSON: Okay. And if we could turn to the table,
17 which is the attachment. And I have a couple of questions
18 about this table here, and in particular the bottom table.
19 So if we could zoom in -- yeah, at the bottom table there.
20 Okay.

21 And so this shows the lifetime estimated gas savings
22 and then the GHG reductions in the next row and then the
23 carbon price in the next row; do you see that there? And
24 then the value of the GHG emissions; right?

25 MR. GINIS: Yeah, we see that.

26 MR. ELSON: Okay, great. And just to be 100 percent
27 clear, for the column for, you know, 2019 forward, those
28 aren't new programs, that's all the benefits flowing from

1 the 2018 programs; right?

2 MR. GINIS: That's correct.

3 MR. ELSON: And if we could then shift to the end of
4 this table, so further down to the right, so the lifetime
5 savings there is \$167 million; is that right?

6 MR. GINIS: Yes, that's what the table shows. I think
7 we have some caveats that are noted in this response. For
8 one, this is all of our DSM programs, including large-
9 volume, which include customers with our own compliance
10 obligations, and therefore, not all of these savings would
11 necessarily be realized.

12 MR. ELSON: Under cap and trade. Okay. And your
13 uncapped -- or the customers that have their own compliance
14 obligations are about, is it 16 percent of the gas flow?

15 [Witness panel confers]

16 MR. ELSON: You know what? That is on the record. I
17 don't need you to look it up, but it is in that range
18 approximately. I just thought you'd know it off the top of
19 your head. I think Sue is nodding yes.

20 MS. FLAMAN: Yes, okay.

21 MR. ELSON: And so what that 167 -- you know, subject
22 to those caveats -- is showing is the value of the GHG
23 reductions from just the 2018 program. Is that right, the
24 lifetime value?

25 MR. GINIS: Yes, that's correct. That's from our 2018
26 programs for all of our DSM results.

27 MR. ELSON: I think there is another caveat to that,
28 which is if you go back to the column for 2028, if you

1 could zoom a bit, zoom in a bit on the screen so that
2 people can see that there.

3 So from 2028 onwards, the price in the second to the
4 bottom row, the carbon price, is \$57 going forward, is that
5 right?

6 MR. GINIS: That's correct.

7 MR. ELSON: And that's because you just assume that
8 the price remains the same at the end of the long-term
9 carbon forecast price?

10 MR. GINIS: So the long-term carbon price forecast
11 only provides a ten-year forecast to 2028 and beyond that,
12 we just extrapolated it out based on that 2028 figure.

13 MR. ELSON: Exactly. And so do you have, or could you
14 undertake to look for and provide if you have any carbon
15 price forecasts in Union's possession that cover the years
16 beyond 2028?

17 MR. GINIS: I think just one point of clarification
18 here. This is our 2018 DSM program results so -- or as
19 least forecasted for 2018. So this is not incremental, so
20 it is not part of our cap and trade compliance plan. This
21 is purely showing, from our DSM Framework in 2018, what the
22 savings would be.

23 MR. ELSON: Of course. This your DSM plan, right?

24 MR. GINIS: Which is already occurring, yes.

25 MR. ELSON: Let me ask that question again. Are you
26 able to provide any carbon price forecasts in Union's
27 possession that cover years beyond 2028?

28 MR. PANTZER: We could certainly check in terms of

1 availability.

2 MS. DJURDJEVIC: That will be undertaking JT1.1.

3 **UNDERTAKING NO. JT1.1: TO PROVIDE ANY CARBON PRICE**
4 **FORECASTS IN UNION'S POSSESSION THAT COVER YEARS**
5 **BEYOND 2028**

6 MR. ELSON: There is a lot of carbon pricing
7 experience on this panel here and based on that experience,
8 I think it would be safe to say that the carbon price is
9 assumed to increase beyond 2028.

10 MS. FLAMAN: If I could just comment on that to say a
11 couple of things. Firstly, I also wanted to go back to
12 your opening statement that incremental abatement is not
13 included.

14 MR. ELSON: Hum?

15 MS. FLAMAN: I think we need to clarify and say
16 incremental abatement relative to energy conservation is
17 not included, and that would be prudent incremental
18 abatement.

19 The other thing that I would say from a long-term
20 carbon pricing forecast perspective is that the tool that
21 was developed by the Board, and that we have used to do our
22 analysis. So to ask us to then develop our own tool and
23 kind of speculate on what would happen in ten year's time,
24 as Mr. Pantzer has said, we could perhaps investigate.

25 But I would again note that the long-term price
26 forecast tool is something that we have been provided with
27 to use.

28 MR. ELSON: And I wouldn't presume to be -- I'm not

1 looking for a period that is covered by the long-term
2 carbon price forecast. I'm just talking about going
3 forward. We'd want the full document just to have an
4 understanding of where the carbon price is coming from.

5 But let me circle back. I don't think it is
6 contentious that you would assume that from 2028 forward,
7 the price is going to continue to go up.

8 MS. FLAMAN: That would depend on the market.

9 MR. ELSON: So you are not willing to say that you
10 think the number is going to go up?

11 MS. FLAMAN: I'm not willing to speculate on the
12 number.

13 MR. ELSON: You think it might go down?

14 MS. FLAMAN: I'm not willing to speculate on the
15 number.

16 MR. ELSON: Okay. So this table here only includes
17 the value of carbon reductions, not other costs or
18 benefits, right?

19 MR. GINIS: Yes, the monetary values here are the cost
20 of carbon.

21 MR. ELSON: I'm going to ask you about some of the
22 other costs and benefits, and my understanding is that the
23 budget for the 2018 resource acquisition DSM programs is
24 about \$36.6 million. Is that right?

25 MR. GINIS: Subject to check, yes.

26 MR. ELSON: So in one sense, you are investing \$36.6
27 million to bring about \$167 million in avoided carbon
28 costs. Is that fair to say?

1 MR. GINIS: Sorry, could you repeat that?

2 MR. ELSON: I said in one sense, Union is vesting
3 \$36.6 million to bring about benefits worth \$167 million in
4 avoided carbon costs, right?

5 MR. GINIS: No, the figure you reference of 36.6
6 million I believe is a resource acquisition budget. This
7 represents all of our programs. I believe for 2018, our
8 budget is closer to around 60 million.

9 Again, I think an important caveat here, too, is that
10 this assumes all of those customers are paying the cost of
11 carbon, and so that \$167 million figure would likely be
12 less.

13 MR. ELSON: Let's take a step back. These figures
14 here are the assumed carbon reductions and gas reductions
15 from your resource acquisition programs, right?

16 MR. GINIS: So if we scroll up to -- actually, it's
17 that third table at the top of the screen. That is our
18 large volume sector. That is not part of our resource
19 acquisition scorecard.

20 MR. ELSON: Got it, okay.

21 MS. DJURDJEVIC: Just to clarify on the transcript,
22 which part of the document were you referring to and the
23 figures that you are referencing?

24 MR. GINIS: It is the third table on the page. That's
25 the large volume program.

26 MR. ELSON: I'm going to circle back to that in terms
27 of the costs. But in terms of the benefits, the only
28 benefit that's in this chart is the avoided carbon cost,

1 right? This table doesn't include the avoided natural gas
2 cost because customers are using less natural gas, right?

3 MR. GINIS: That's correct.

4 MR. ELSON: Could you undertake to add a row to this
5 table estimating the value of avoided natural gas costs?

6 MR. GINIS: Yes, we can provide that.

7 MS. DJURDJEVIC: That will be undertaking JT1.2.

8 **UNDERTAKING NO. JT1.2: TO UPDATE THE LARGE VOLUME**
9 **PROGRAM TABLE IN ED4 TO INCLUDE AN ESTIMATE FOR THE**
10 **VALUE OF AVOIDED NATURAL GAS COSTS**

11 MR. ELSON: Could you also add a row showing the
12 program administrator costs, so Union's costs associated
13 with these reductions?

14 MR. GINIS: We can provide more information to this.
15 But I think it is important to note again that this is from
16 our DSM programs; it is not an assessment of incremental
17 abatement or potential incremental abatement. This is the
18 work that we are already doing in our DSM program.

19 MR. ELSON: That's understood. So was that a yes, you
20 can undertake to provide the requested information?

21 MR. GINIS: Can you clarify what that last request
22 was?

23 MR. ELSON: It was to add a row showing the program
24 administrator costs associated with these carbon and gas
25 reductions.

26 MR. GINIS: So the costs to run the program?

27 MR. ELSON: Yes.

28 MS. DJURDJEVIC: That will be JT1.3. Just to clarify,

1 that is adding a row to which of the charts?

2 MR. ELSON: To the table at the bottom of attachment
3 A, Exhibit B, ED 24.

4 MS. DJURDJEVIC: Thank you.

5 **UNDERTAKING NO. JT1.3: TO ADD A ROW TO THE TABLE AT**
6 **THE BOTTOM OF ATTACHMENT A, EXHIBIT B.ED.24 SHOWING**
7 **THE PROGRAM ADMINISTRATOR COSTS ASSOCIATED WITH CARBON**
8 **AND GAS REDUCTIONS²**

9 MR. ELSON: And those would be the costs just
10 associated with these reductions, right?

11 MR. GINIS: Yes.

12 MR. ELSON: Thank you. Those costs are all going to
13 occur in 2018; right?

14 MR. GINIS: That's correct.

15 MR. ELSON: So thirdly, can you undertake to add a row
16 to show the cost to customers over time, as if the program
17 administrator costs were added to rate base in 2018 so that
18 it will flow matching the benefits?

19 MS. SEERS: Mr. Elson, can you help us understand how
20 this is to clarify their evidence? You had an opportunity
21 to present evidence on behalf of your client, and that was
22 taken. So I am struggling to understand -- I let the first
23 two go, but I'm struggling to understand how this is
24 intended to help you understand Union's evidence.

25 MR. ELSON: There is often an issue raised against or
26 sometimes an issue raised against implementing incremental
27 abatement, in that you have to pay for all the costs
28 upfront. But the benefits accrue over a long period of

1 time, and what I'm asking the panel to do is to provide an
2 example where you smooth those costs out over time.

3 The example I've provided is equivalent to rate-
4 basing, so I don't think it's a technically difficult
5 question, and it is relevant to the pros and cons of
6 implementing incremental customer abatement.

7 MS. SEERS: We'll take that one under advisement for
8 now.

9 MR. ELSON: Okay, well, let me ask a follow-up
10 question, which is generally about the issue between the
11 mismatch between costs and benefits.

12 If you did not include incremental abatement, you
13 know, as if it was rate-based, what are some other ways
14 that you would finance it with long-term debt or with other
15 forms of instruments, in terms of better matching the cost
16 and the benefits from abatement?

17 MS. NEWBURY: So as we considered abatement, I think
18 I'd like to just make sure that we're considering what we
19 put forward initially.

20 I would take you to Exhibit 1 of our binder of the
21 compliance plan, pages 4 and 7, Report 2-7. So pages 4
22 to 7 offer the starting place for how we considered
23 abatement.

24 I think it is important to note that we have expanded
25 our abatement options and considerations in this compliance
26 plan for 2018. We have a number of different ways that we
27 are considering abatement. We've proposed an abatement
28 construct. We have looked at long -- low-carbon initiative

1 fund to propose new technologies that focus on abatement.
2 We have considered facility abatement and done a study to
3 look at that.

4 We have GIF, which we have done outside of the DSM
5 program, that offers incremental abatement to show that we
6 are collaborating with government and working hard to drive
7 abatement.

8 And finally, we have R&D that offers additional
9 abatement, and that is all in addition to the abatement
10 that we have achieved with our DSM programs.

11 So when we stepped back and looked at abatement, how
12 did we measure, to your point, the benefits of abatement,
13 and I would say that we followed the guiding principles of
14 the cap-and-trade framework. The principles are very much
15 focused on cost-effectiveness and rate recovery, so we
16 wanted to make sure that we were optimizing the risk of
17 abatement against the risk of compliance to make sure that
18 we were protecting the consumer and our ratepayer from
19 undue risk.

20 When we looked at that, we then considered how best to
21 consider abatement and use the tools that were provided to
22 us by the Board, the long-term carbon price forecast and
23 the MACC, and we did that, so when we looked at RNG we used
24 the MAC. When we looked at facilities abatement we used
25 the long-term carbon price forecast. And also, when we
26 looked at DSM we used the MAC and the long-term carbon
27 price forecast as well.

28 MR. ELSON: So let me circle back to my question,

1 which is focusing on abatement, and I have heard your
2 evidence, and so I understand that there's other aspects to
3 it, but I'm focusing on conservation for the meantime, and
4 particularly the question whereby you sometimes have a
5 mismatch between the costs and the benefits, which isn't
6 necessarily detrimental, but something that some people
7 would like to see remedied, and what are some of the other
8 ways that you can address that mismatch in terms of
9 financing of conservation budgets.

10 MR. GINIS: Can you clarify what you mean by
11 "mismatching"?

12 MR. ELSON: Of course. So if you look on that table
13 that we had up, which was B, ED.24, the benefits of your
14 conservation programs stretch out over time and over a
15 fairly long period and a different period depending on what
16 the program is, but the costs are incurred in the first
17 year, and so I'm asking about ways that you can --
18 different tools you can use other than rate-basing. I have
19 already asked about rate-basing. But other tools you can
20 use to finance those costs so that they stretch out over
21 the period in which you reap the benefits.

22 MS. FLAMAN: As my colleague Mr. Ginis has noted, the
23 numbers we've provided in ED.24 and the table are drawn
24 from our 2018 DSM program, so as you ask us to consider
25 ways to refinance our DSM program, I would say that that's
26 more appropriate for a consideration of the DSM Framework,
27 and this is -- we are focused right now on cap-and-trade
28 framework and how to ensure compliance with that.

1 I would say again that anything looking beyond how to
2 refinance mismatch of costs and benefits would need to be
3 considered in the DSM Framework, and the DSM Framework, as
4 you know, was just approved. We're in the second year of
5 it, and it extends out to 2020.

6 There has been a lot of thoughtful consideration into
7 how these numbers have been developed and how the framework
8 was established already.

9 MR. ELSON: So I think the question may be one that's
10 relevant to DSM, but it's also relevant to cap-and-trade
11 and it's relevant to the possibility or whether there
12 should have been or whether there will be incremental
13 conservation as part of cap-and-trade compliance, and the
14 question is, if there is going to be incremental
15 conservation, what are some of the tools you can use to
16 have those costs stretch out over time so that there is a
17 matching of the costs and benefits.

18 And I'm just looking for some of your thoughts on that
19 from a high level, Ms. Flaman.

20 MS. FLAMAN: So to clarify my understanding of your
21 question, you're saying how can we look at financing
22 incremental abatement and the cap-and-trade framework.

23 To your point then, what I would suggest is that I
24 would come to our abatement construct where we have set our
25 line to that. And that's on Exhibit 3, tab 4, page 7,
26 where we lay out what the abatement construct will be. We
27 have -- so we have looked at different ways that we would
28 consider abatement that could be incremental.

1 If we are considering the cap-and-trade framework, I
2 think we need to recognize that energy conservation is one
3 component of that.

4 There is additionally -- we need to look at
5 facilities, and we need to look at customer abatement
6 overall.

7 MR. ELSON: So again, I'm focussing on conservation,
8 and my question is what are some of the tools that you
9 could use that would be available to you to finance
10 incremental conservation that is cap-and-trade driven,
11 whether that comes about in the way that Union has
12 suggested which is cap-and-trade-driven DSM or conservation
13 that happens under the DSM Framework, or cap-and-trade
14 driven DSM which happens as part of this proceeding or the
15 next proceeding, or wherever it arises, how could you
16 finance that?

17 And the next question is I'm trying to figure out what
18 would the cost be associated with that. But my preliminary
19 question is -- and I'm asking you, because you folks are
20 the experts -- and I've suggested one option, which is rate
21 basing. But other than that, how would you finance it?

22 If it is something that you want to take away and
23 think about, then an undertaking may be appropriate.

24 MS. FLAMAN: Okay, thank you for the clarity.

25 I would say there are a couple of ways, and we have
26 talked about it this in the compliance plan as well. And
27 more importantly, we've already implemented one of them.

28 We've looked at additional government funding through

1 the Green Investment Fund. We have, through the Green
2 Investment Fund to date, processed -- have a target of
3 approximately 16,000 homes that will consider energy
4 conservation for.

5 We have enhanced our residential home reno rebate
6 program. We've added incentives to include homes heated by
7 fuel other than natural gas, such as propane, oil, wood.
8 We've topped up our DSM and home reno rebate incentives to
9 look at basement and exterior wall insulation.

10 So through that program, we have anticipated savings
11 in the order of 13,000 tons of carbon equivalents that will
12 be attributable to the Green Investment Fund and this
13 collaboration program that we have in 2018.

14 In addition, as we looked at other financing options,
15 we have also been proactively working to pursue the GreenON
16 fund dollars. I think it's very important to note that
17 GreenON fund has brought quite a bit of funding into the
18 market to pursue a variety of energy conservation measures,
19 as well as additional energy conservation measures.

20 We have considered all of the items that have come
21 into the market lately. The GreenON fund was established in
22 August of 2017, and we have been actively working in
23 pursuing how to collaborate with government and other
24 stakeholders to drive energy conservation forward.

25 So while you would suggest that rate base is one
26 option, I would suggest, and as our abatement construct
27 has said, that the Green Investment Fund, pursuing
28 government funding also another option to pursue and look

1 at.

2 MR. ELSON: I think there was maybe a bit of a
3 misunderstanding. I am not talking about different pots to
4 obtain in year funding. I'm talking about different
5 financing options, and what I'm looking for is insight from
6 you, either now or via an undertaking, about the options
7 that are available to Union to finance conservation funding
8 over time.

9 MS. SEERS: Mr. Elson, you are pretty much asking the
10 question that you asked in ED.25 and it is answered there.
11 And beyond that, we are not going to speculate, nor will we
12 grant that undertaking.

13 MR. ELSON: Can you state your objection for the
14 Record? I didn't catch that.

15 MS. SEERS: Already -- the question has already been
16 answered. And to the extent that you are asking for
17 speculation as to what other sources of financing might or
18 might not be available, the answer is there. No other
19 sources were considered, and the exercise of considering
20 other sources would be outside the scope.

21 MR. ELSON: So ED.25 doesn't discuss other -- I'm not
22 talking about other options, sources of funding. I am just
23 talking about financing options.

24 If you are saying that this is irrelevant, then I'll
25 move on because I can't force you to provide an answer.
26 But that answer is not provided in ED.25, so that kind of
27 guidance would be helpful.

28 MS. SEERS: Sorry, you are saying you are not asking

1 for other...

2 MR. ELSON: I am not talking about finding other ways
3 to fund these programs in 2018. I'm talking about options
4 available to Union to spread out the cost of conservation
5 programs over time through debt or equity, or whatever, and
6 to discuss those potential options.

7 MS. SEERS: Our sense is that question is answered at
8 ED.25, but we will take another look and if we have
9 anything else to add to the answer to that question, we
10 will do so.

11 MR. ELSON: Is that under advisement then?

12 MS. SEERS: Sure.

13 MR. ELSON: Could we have an undertaking number for
14 that?

15 MS. DJURDJEVIC: That will be undertaking JT1.4.

16 **UNDERTAKING NO. JT1.4: TO DISCUSS OPTIONS AVAILABLE**
17 **TO UNION TO FINANCE CONSERVATION FUNDING OVER TIME,**
18 **WHETHER THAT BE THROUGH DEBT EQUITY OR OTHERWISE;**
19 **TAKEN UNDER ADVISEMENT**

20 MS. DJURDJEVIC: Can we restate, just so we're clear
21 on the record, what the undertaking is?

22 MR. ELSON: Can I have clarity of -- in terms of the
23 numbers, the undertaking -- sorry, the under advisement
24 about rate basing didn't have a number at attached to that.
25 Can we assign that 1.4 and this one 1.5?

26 MS. DJURDJEVIC: So this was the question about costs
27 over time?

28 MR. ELSON: There was an earlier...

1 MS. DJURDJEVIC: Okay, we will make that -- we don't
2 have a separate nomenclature for under advisements, but
3 we'll call that JT1.4; our understanding is that is a
4 question taken under advisement. And JT1.5 is also being
5 taken under advisement.

6 MR. ELSON: And the question is to discuss options
7 available to Union to finance conservation funding over
8 time, whether that be through debt equity or otherwise.

9 MS. SEERS: And the under advisement portion is to
10 determine whether there's anything in addition to what is
11 set out at ED.25 that Union has to add to that response.

12 MS. DJURDJEVIC: Thank you.

13 **UNDERTAKING NO. JT1.5: TO DETERMINE WHETHER THERE IS**
14 **ANYTHING TO ADD TO THE RESPONSE TO EXHIBIT B.ED.25/26;**
15 **TAKEN UNDER ADVISEMENT**

16 MR. ELSON: I've spent about twenty minutes on
17 something that I would thought would take thirty seconds,
18 so I'll try to speed up a little bit here.

19 Can we turn please to ED.30, attachment A? So ED.30
20 is comments to the technical advisory group by Union Gas,
21 and this is the technical advisory group relating to the
22 MACC. Who drafted these comments?

23 MS. FLAMAN: Union Gas have participants on the OEB
24 technical advisory group. So one of the participants from
25 for the technical advisory group would have been
26 responsible for these comments.

27 MR. ELSON: Okay. I'd like to look at -- there's --
28 at the bottom of the table, it says slide 16 and it says:

1 "Definition of MACC costs". So this is on page 1 of
2 attachment A, ED.30.

3 And the question is a definition of MACC cost
4 abatement, what should be should be included in the costs
5 Measures. Do you see that there?

6 MS. FLAMAN: Yes.

7 MR. ELSON: And Union's answer is in the next column
8 and it says:

9 "Union would like to see the below included in
10 the cost measurement."

11 And then the first bullet is "program costs related to
12 program delivery, including incentives, programs costs, and
13 administrative costs." Do you see that there?

14 MS. FLAMAN: Yes.

15 MR. ELSON: And so if we go to the next page, page 2,
16 and look at the top row, the last column, that's a
17 continuation of that list; do you see that there?

18 MS. FLAMAN: Yes.

19 MR. ELSON: And so the first item is natural gas
20 avoided costs, which should include commodity costs,
21 upstream capacity costs, and downstream and carbon costs;
22 do you see that there?

23 MS. FLAMAN: Yes.

24 MR. ELSON: And so I take it from this that Union
25 believes that natural gas costs should be included in the
26 assessment of conservation initiatives for cap-and-trade
27 plan purposes; is that fair to say?

28 [Witness panel confers]

1 MR. GINIS: These comments here were not policy
2 recommendations; they were comments at the working group
3 for the MACC specifically at that time. The MACC has since
4 been finalized, and not all of these costs or benefits have
5 been included in the MACC.

6 And another example of that would be the second-last
7 bullet, upfront capital costs and installation costs.
8 Those are the costs to the customers that have not been
9 included in the MACC.

10 MR. ELSON: Mr. Ginis, could you follow up on that and
11 just itemize the items which are not included in the MACC
12 now? Upfront capital costs is one. Are there any others
13 that are part of this list?

14 MR. GINIS: I would take you to the MACC report
15 itself, page 7. And perhaps we need to mark this as an
16 exhibit.

17 MS. DJURDJEVIC: Is it attached to any one of the
18 undertaking responses or...

19 MS. SEERS: It is not, but we do have -- because we
20 noticed that it wasn't on the record, we brought copies, so
21 we're happy to have it marked as an exhibit if that would
22 be --

23 MS. DJURDJEVIC: Okay. Let's do that then. That will
24 be Exhibit KT1.2, the MACC reports.

25 **EXHIBIT NO. KT1.2: THE MACC REPORTS.**

26 MR. ELSON: So I see that reference there to page 7,
27 and I think that answers my question.

28 So following up on my original comment, presumably any

1 assessment of the cost-effectiveness of conservation would
2 need to include these avoided natural gas costs over the
3 lifetime of the measures; is that fair to say?

4 MR. GINIS: I think it would depend on the framework
5 and what is identified in the framework.

6 MR. ELSON: Well, let's say this. Union Gas has to
7 assess the cost-effectiveness of conservation under the
8 cap-and-trade framework; right?

9 MR. GINIS: That's correct, and the tool that the
10 Board has provided to us for that purpose is the MACC.

11 MR. ELSON: I think what I am looking for is something
12 that's -- should be fairly straightforward, which is an
13 acknowledgment that when you're looking at the cost-
14 effectiveness of conservation you need to include the
15 avoided natural gas costs. I don't think that is
16 inconsistent with the MACC. I just want to know that
17 that's Union Gas's understanding as well.

18 MS. SEERS: Mr. Elson, I think your question has been
19 answered.

20 MR. ELSON: The answer is yes?

21 MS. SEERS: The answer is what it was, that the Board
22 has provided a tool and that Union has used the tool.

23 MR. ELSON: So is that a yes or a no? I'm not
24 following.

25 MS. SEERS: I'm not going to allow you to ask the same
26 question over and over again in the hopes of getting a
27 different answer. The answer was what it was, and you
28 don't need to ask the same questions.

1 MR. ELSON: I just don't think there is clarity on the
2 record whether the answer is agreeing or disagreeing.
3 There was a comment that was made, and I'm just looking for
4 an affirmative or a negative, which I assume Mr. Ginis can
5 provide.

6 MR. GINIS: I think you are asking for a response in
7 general of what costs and benefits should be included when
8 you screen for energy conservation programs, and the answer
9 that I've provided is that it depends on the framework.
10 There's no general answer to that question. Under the DSM
11 Framework it can be one thing and under the cap-and-trade
12 framework as identified by the Board it's the MACC.

13 MR. ELSON: I'm talking about the cap-and-trade
14 framework, of course.

15 MR. GINIS: Then it's the MACC.

16 MR. ELSON: And in that case it does include avoided
17 natural gas costs; right?

18 MR. GINIS: The MACC includes the avoided cost of gas,
19 yes.

20 MR. ELSON: And so part of an assessment of
21 conservation under the cap-and-trade framework involves
22 looking at the avoided natural gas costs; right? Over the
23 lifetime of the measures?

24 Mr. Ginis, this is pretty rudimentary. I don't
25 understand why we're having trouble.

26 MR. GINIS: I don't think we're having trouble, I
27 think I'm not totally understanding what your question is.
28 The MACC does include the cost of gas, if that's what

1 you're asking.

2 MR. ELSON: I'll move on.

3 MS. DJURDJEVIC: Sorry, maybe, would it be helpful to
4 refer to the MACC report where this is specifically
5 addressed, and then the witnesses can have the document in
6 front of them, and if it's yes or no --

7 MR. ELSON: My question isn't about the MACC, and in
8 the interests of time I'm going to move on.

9 Could we turn to attachment D, page 14. Actually,
10 sorry, before we do that let's stick with this page 2
11 that's on the screen here.

12 So these are the comments of Union to the technical
13 advisory group?

14 MS. FLAMAN: Yes.

15 MR. ELSON: And the items listed here, do they
16 correspond to the utility cost test, the TRC? What do they
17 correspond to? What kind of test do they correspond to?

18 MR. GINIS: You are asking of the cost/benefits we've
19 provided here what tests do that typically correspond to?

20 MR. ELSON: Yes.

21 MR. GINIS: They appear to reflect the TRC test.

22 MR. ELSON: Okay. Thank you.

23 And could we turn to attachment D, page 14? Actually,
24 turn back to page --

25 MS. GIRVAN: Could I just interject for a second? Why
26 does this say "draft report" and this says "final report"?

27 MR. ELSON: I think I can probably answer that
28 question. Attachment D in the evidence was provided in

1 response to an interrogatory requesting back-and-forths
2 with the technical advisory group --

3 MS. GIRVAN: Oh, sorry.

4 MR. ELSON: -- and so this is the draft and that is
5 the final. I know I shouldn't be answering questions.

6 So you had asked here for -- I'm back on page 12,
7 actually, two slides back, and the comment at the bottom,
8 CW8, is that you'd like a chart to show what was included
9 in the TRC plus the MACC cost-effectiveness screen. Did
10 you ever get that chart?

11 MS. FLAMAN: I don't know. I can say, though, that we
12 certainly have the MACC as the tool that the Board has
13 provided us. That was issued in July.

14 MR. ELSON: Okay. So let's turn on to -- well, can
15 you take a look for that and see if you did receive that
16 answer to your request there?

17 MS. GIRVAN: Sorry to interject again. We are having
18 a little bit trouble hearing you, so maybe you could bring
19 the microphone closer. Thank you very much.

20 MS. FLAMAN: I would again note that we have the MACC
21 that the Board issued in July. I don't know if we received
22 the chart or not.

23 MR. ELSON: But you are saying the MACC report answers
24 it, which actually may be fair. I think that's probably
25 correct.

26 If could move on to ED.32, please. In this
27 interrogatory, we asked for the budgets for the Green
28 Investment Fund and for your DSM resource acquisition

1 programs.

2 Could you also include the TRC? Could you add the TRC
3 for the Green Investment Fund versus your DSM program, your
4 TRC ratio?

5 MR. GINIS: You are asking for the TRC specific to the
6 Green Investment Fund?

7 MR. ELSON: What I'm asking for is the TRC ratio for
8 the Green Investment Fund and the TRC ratio for your 2018
9 DSM program.

10 MS. FLAMAN: I would suggest that as you look at TRC
11 for 2018 programs, it is premature to provide any finalized
12 TRC numbers at this time.

13 As the Board is aware, or Staff is aware, we have to
14 provide a report, do our final audit information. None of
15 that has been finalized for the 2018 numbers.

16 MR. ELSON: That's fair. I'm just looking for
17 forecast figures, not actuals, presumably consistent with
18 your plans for those programs.

19 MS. FLAMAN: We don't have forecasted TRC for the
20 Green Investment Fund. We do have an attribution agreement
21 that delivers how we would look at the funding. We did not
22 do TRC for that.

23 And again, for the 2018 program, TRC for our 2018
24 program is something that is inclusive of the DSM
25 Framework, and again something that that we would need to
26 finalize and report as required.

27 MR. ELSON: So for your DSM plans, you calculate the
28 net benefits of your programs, right? Like you forecast

1 your net benefits for your DSM programs?

2 MR. GINIS: We do not. In our 2015 to 2020 DSM plan,
3 we provided the first year TRC results. That would have
4 been for 2016, because 2015 was a rollover year. We do
5 not, to my knowledge, forecast TRC at the beginning of each
6 year beyond what we've provided in our plan for 2016.

7 MR. ELSON: I'm just talking about, in developing your
8 plan, you developed net estimated benefits.

9 MR. GINIS: For 2016 we did, the first year of our
10 plan.

11 MR. ELSON: Ms. Flaman, you are from the conservation
12 group?

13 MS. FLAMAN: Yes.

14 MR. ELSON: And my understanding is that you have to
15 do cost-effectiveness screening on your conservation plans,
16 which means that you have to have a TRC ratio for your
17 conservation plans -- and that's planned, of course, not
18 updated. But you had to have that at some point; is that
19 fair to say?

20 MR. GINIS: Again, we have it for the first year. We
21 report on it at the end of each year in our annual report
22 for DSM, but we don't have forecasted TRC results or
23 forecast for the years after 2016.

24 MR. ELSON: Now, do you have planned TRC net benefits?

25 MR. GINIS: No, we don't screen for TRC in advance of
26 the program, other than the first year.

27 MR. ELSON: Other than the first year. So the only
28 year you have is 2016 -- no, 2017?

1 MS. FLAMAN: As my colleagues notes, and I think it's
2 just worthwhile recalling that we have an approved 2015 to
3 2020 DSM Framework in place. We -- as part of the 2016
4 year for that approved framework that is now only in its --
5 it's only been through two years, did the TRC planning that
6 you are calling it, and that's what we have.

7 And then, as I noted earlier, we report at the end of
8 each year on how we have done with the TRC relative to the
9 programs.

10 MR. ELSON: So which years do you have the TRC ratio
11 for?

12 MR. GINIS: We've provided an IR with our historical
13 result. I was just looking for that.

14 So we have up until 2015 available in our IR
15 responses. For 2016, like I said, we have a forecast
16 that's in our 2015 to 2020 DSM plan, and that would be it.

17 MR. ELSON: So you don't have one for 2017?

18 MR. GINIS: We haven't finalized our results for 2016.

19 MR. ELSON: So as part of EB-2016-0296 and Exhibit B,
20 ED.1, I'm just looking at page 2, I have TRC ratios from
21 your 2017 plans.

22 So you definitely have them and I'm just looking for
23 the equivalent figure for 2018. This is from the last cap-
24 and-trade proceeding.

25 MR. GINIS: What was that reference?

26 MR. ELSON: I am not referring to something in the
27 evidence. What I'm saying is that in the last cap-and-
28 trade proceeding, you provided me with your TRC ratio for

1 your 2017 plans.

2 So I would appreciate an undertaking to go back and
3 see if you can provide the 2018 planned TRC ratio and net
4 benefits. If you go back and look and you don't have them,
5 that's fine. But I'm pretty sure you do.

6 MR. GINIS: We can undertake to look for that. But
7 that was my understanding of how it worked out. I would
8 have to look at what we filed in the 2017 compliance plan.
9 But we will undertake to look at that.

10 MR. POCH: If I can assist, just so you've got a
11 starting point, in your give 2015-0029 filing, Exhibit A,
12 tab 1, page 3, line 12, you give the sum of TRC benefits
13 for the full six years or whatever it is, five years. So
14 you must have -- you can go back to your work papers for
15 that, I assume.

16 MS. DJURDJEVIC: So undertaking JT1.6, can we just
17 clarify what it is?

18 MR. ELSON: To provide the TRC ratio and TRC net
19 benefits for Union's 2018 DSM programs.

20 MS. DJURDJEVIC: Thank you.

21 MS. SEERS: If available.

22 MR. ELSON: Of course.

23 **UNDERTAKING NO. JT1.6: TO PROVIDE THE TRC RATIO AND**
24 **TRC NET BENEFITS FOR UNION'S 2018 DSM PROGRAMS**

25 MR. ELSON: So that was just a precursor to questions
26 about the Green Investment Fund.

27 So I think that the reference that my friend just
28 noted shows that there is a calculation of net benefits

1 under the DSM Framework, and I'm just looking for the
2 equivalent with the Green Investment Fund.

3 So for that conservation, have you calculated the net
4 benefits, through one way or the other, at a forecasted
5 plan level?

6 MS. FLAMAN: Can I just clarify for net benefits, how
7 you are defining net benefits?

8 MR. ELSON: You can define net benefits in a lot of
9 different ways, and I'm asking if you have calculated the
10 net benefits in one way or another.

11 You may calculate them under the TRC. You may
12 calculate them under the utility cost test. I'm asking you
13 if you've calculated the net benefits of the Green
14 Investment Fund and the cost benefit ratio.

15 I presume you would use the TRC, but maybe you use a
16 different framework.

17 MR. GINIS: Again, it's my understanding that we do
18 not have that, and we did not do that for 2018, either for
19 DSM or for the Green Investment Fund, but we can undertake
20 to review that. However, my understanding is that that
21 does not exist for Green Investment Fund.

22 MR. ELSON: Okay. So should I rephrase that
23 undertaking?

24 MS. DJURDJEVIC: Yes.

25 MR. ELSON: So I think that's 1.7, and it would to
26 look for and provide if possible the net benefits forecast
27 or planned for the Green Investment Fund and the
28 cost/benefit ratio of those programs.

1 UNDERTAKING NO. JT1.7: TO LOOK FOR AND PROVIDE IF
2 POSSIBLE THE NET BENEFITS FORECASE OR PLANNED FOR THE
3 GREEN INVESTMENT FUND, AND THE COST/BENEFIT RATIO OF
4 THOSE PROGRAMS

5 MS. DJURDJEVIC: And sorry to interrupt, Mr. Elson,
6 just minding the time, we are going to hold people pretty
7 strictly to their time estimates. And just to let
8 everybody have their requested time, and then hopefully as
9 we move on, you know, questions will get sort of digested,
10 and we may have a little time at the end where people can
11 sort of do any follow-up or supplementary questions.

12 So with that, we could extend another few minutes if
13 you have sort of a topic or an area that you might be able
14 to conclude in the next few minutes, and then we'll move to
15 the other questioners.

16 MR. ELSON: I have a fair amount of questions, and I'd
17 like to see how many I can get through. I've gone around
18 in circles on some questions that I expected to be a lot
19 faster than they in fact were, so let me take a look
20 through my notes and cut out what I can and proceed as
21 quickly as possible.

22 MS. DJURDJEVIC: Okay. Well, while you are doing that
23 is it possible that we could move to Staff's questions,
24 which are expected to take 25 minutes and -- no? It will
25 be less than that. So can we do that, just so we're --

26 MR. ELSON: And go back to me after Staff's questions?

27 MS. DJURDJEVIC: Yes, yes, just to make use of our
28 time, so with that I will turn it over to Mr. Wasylyk.

1 **QUESTIONS BY MR. WASYLYK:**

2 MR. WASYLYK: Good morning, witnesses. So OEB Staff
3 circulated our questions in advance to hopefully help speed
4 up the process today and give everyone else a little bit
5 more time. Maybe we can pull those out so that they are in
6 front of everyone.

7 And what I'll do is I'll quickly walk through them,
8 and if you've got responses prepared that's great. If not,
9 there's a number of things that may require undertakings,
10 and we can address those as we see fit.

11 The first question and topic area again relates to
12 abatement activity and kind of your analysis that you've
13 done in preparing your 2018 compliance plan.

14 So this is a follow-up to Exhibit B, Staff 30. And
15 within that there -- we looked at Union's sort of analysis
16 of the savings potentials within the conservation potential
17 study and the MACC.

18 And in Union's response to Staff's question there -- I
19 will just read:

20 "Union notes that it understands that the
21 opportunities identified in the MACC and CPS take
22 into account some natural conservation. However,
23 Union does not believe that this natural
24 conservation takes into account all applicable
25 factors."

26 You note an example, that the CPS -- "the reference
27 case does not account for initiatives related to the
28 climate change action plan, or CCAP", which is totally

1 fair, as it was under development at the time.

2 So my follow-up questions are essentially related to
3 how Union has accounted for any CCAP developments within
4 your analysis.

5 My first question was basically, can you tell me how
6 Union has determined any and all adjustment factors to
7 account for CCAP initiatives, 2018, '19, and '20, and the
8 manner in which Union has applied these adjustment factors
9 to the MACC results?

10 MR. GINIS: So I refer to you Exhibit B, Staff 31,
11 part B, which is on page 4. So I would refer to Exhibit B,
12 Staff 31, page 4. So in the paragraph listed number "2" we
13 just describe the net-to-gross ratios that we used and
14 applied to the MACC, and they're based on our DSM net-to-
15 gross ratios. Those are the only net-to-gross ratios that
16 we have. We did not develop net-to-gross ratios
17 specifically for this purpose. So absent any other numbers
18 that were available, we felt it was most prudent to use
19 these.

20 I would note that this is to reflect government
21 funding through the CCAP. And we expect through the CCAP
22 itself for the budget on energy conservation programming to
23 be in the range of 2- to \$4-billion from 2017 to 2020, so
24 it is a significant amount.

25 MR. WASYLYK: Okay, so then you might have already
26 answered part B. I think you have. You can just confirm
27 for the record

28 "Please indicate if Union has developed different

1 CCAP adjustment factors relative to each sector
2 end use, rationale for this -- for the
3 methodology that you used."

4 I think what you've just told me is that you haven't
5 developed any additional adjustment factors for CCAP
6 specifically?

7 MR. GINIS: That's correct.

8 MR. WASYLYK: So now just -- so a follow-up that I
9 want to pose to you, and it's a follow-up on an
10 interrogatory response from Mr. Chris Neme, and that's
11 GC.ED.Staff.4, where Mr. Neme goes to describe his opinion
12 on the adjustments identified, and I think this is more for
13 Enbridge's, but I think it is applicable to Union's as
14 well, as you just noted that you've taken your historical
15 DSM net-to-gross ratios and applied them to the potential,
16 and Mr. Neme notes that the 54 percent is likely
17 overstated, and cites a few various, I assume high-level
18 guesses as to why that is, is the programs are specifically
19 targeted -- the CCAP programs, sorry, are specifically
20 targeted to areas of the market, and they are just getting
21 off the ground now.

22 So what I'd like to understand a little bit better is
23 the reasons why you think that it's appropriate to have
24 applied the historic DSM net-to-gross factors to the
25 current application that we're dealing with here.

26 MR. GINIS: Well, again, I think I've sort of answered
27 that, in that it will be a significant amount of money that
28 CCAP will be funding. They will be funding it from 2017 to

1 2020. The MACC results are reflective of 2018 to 2020, and
2 so therefore in order to adjust for the amount of
3 opportunity that CCAP would be pursuing, we felt it was
4 appropriate to use those adjustment factors.

5 MR. WASYLYK: Okay. And so you cite the amount of
6 money. Have you done any analysis on where that money will
7 be used and how that overlaps with Union's current suite of
8 programs? Because I think that helps us better understand
9 whether or not it is an appropriate adjustment.

10 MR. GINIS: We have not done specific analysis, but I
11 think at this point it would be important to note that the
12 adjustments that we provided, while we think they are
13 appropriate for CCAP, even without those adjustments made,
14 the conclusion that we came to, which is that our DSM
15 programs from 2018 to 2020 will surpass the MACC
16 opportunity, is still true. So these adjustments are not
17 material to that conclusion, and therefore we didn't feel
18 it was necessary to do an extensive amount of analysis on
19 those specific adjustments.

20 MR. WASYLYK: Okay. So then maybe you can confirm
21 that in 2018, again, you noted a dollar amount that you
22 expect to be invested through CCAP, but in 2018 it is
23 likely that the uptake in -- or the start-up of those new
24 CCAP programs are going to take a little bit of time. As
25 you know, it takes a little bit of time to start a DSM
26 program.

27 Have you done any analysis to understand when those
28 programs will hit market and their potential impacts?

1 MS. FLAMAN: As you've noted, the programs are now
2 coming into market, so we have not done any specific
3 analysis. However, I think it is important to note that we
4 are certainly paying attention.

5 As an example, one of the GreenON programs that came
6 into the market in the fall delivered a \$40 million program
7 targeted at single residential programming for the
8 installation of a smart thermostat. That \$40 million is in
9 relation to our 60-million-ish budget for 2018 of DSM
10 program, and that was for one measure.

11 There is certainly, with GreenON, a number of programs
12 coming into market that we anticipate will pose a risk to
13 our DSM programming if they duplicate what is already in
14 market.

15 MR. WASYLYK: Okay. I think those are the questions,
16 the follow-up questions relative to that interrogatory
17 response, so we'll move on to the next area.

18 The next area is in response to -- kind of follow-ups
19 on two interrogatory responses that kind of go to the same
20 general area, and that's Exhibit B, Staff 29 and Exhibit B,
21 Staff 19.

22 What's been done here is -- some questions have been
23 asked related to the cost-effectiveness of the current
24 proposals put in front of us. So I just had a couple of
25 follow-up questions to those. You will have likely have
26 seen them in advance.

27 The first one is if you could explain what cost test
28 Union has used to determine -- it's a statement within your

1 interrogatory response to Staff 29, where you state that
2 incremental abatement opportunities were not cost-effective
3 over an average 15-year measure life, once Ontario's cap-
4 and-trade market is linked to the WCI.

5 I'm looking for a little bit more of an explanation as
6 to the analysis behind that statement.

7 MR. GINIS: So the preamble or reference to Exhibit B,
8 Staff 29, is referring to our CPS analysis specifically.

9 I think we should note that we conducted two analyses.
10 The primary analysis was the MACC, and we also did the CPS.

11 So I think what you are seeking clarification on is
12 what were the cost-effectiveness tests applied in those
13 analysis. And so for the CPS, the cost-effectiveness test
14 that was used was TRC.

15 We then compared the assessment of that opportunity
16 purely to the cost to drive that opportunity, to see which
17 option was more cost-effective. Would it be to fund those
18 programs, or to purchase a compliance instrument? So that
19 was the first assessment on the CPS. And then we also used
20 the MACC as the second and primary assessment.

21 MR. WASYLYK: When you say you compared the costs, did
22 you also take into account the benefits that would come
23 from that?

24 MR. GINIS: You are referring to the CPS analysis?

25 MR. WASYLYK: Yes.

26 MR. GINIS: So again, the analysis that we used was
27 the OEB's tool, was the MACC. Those benefits and costs are
28 outlined on page 7 of the MACC which we discussed earlier.

1 We compared that to our DSM programs to see whether or
2 not there was incremental opportunity, which we concluded
3 that there wasn't. That includes the cost of gas in that
4 analysis. I think, though, what this is referring to is a
5 CPS analysis specifically. And again, the opportunity in
6 the CPS was identified using TRC. That opportunity was
7 compared to the cost of purchasing a compliance instrument.

8 MR. WASYLYK: I'm just looking -- maybe this might
9 help, if you take an undertaking and you can preside this,
10 you know, in a table or something, just so that it's
11 crystal clear for myself.

12 It was listed in the questions there, and I'm
13 wondering if you can take an undertaking to please list and
14 describe all the costs and benefits that Union has included
15 in its cost test analysis used to analyze the cost-
16 effectiveness of the abatement programs considered in
17 developing its 2015 compliance plan.

18 Are you able to do that? Then it would help us to
19 really crystallize what that analysis is.

20 MR. GINIS: Again, I apologize if this is a confusing
21 topic, but we used the MACC primarily. So if you're asking
22 what the costs and benefits were in that analysis, I would
23 refer you to page 7 of the MACC.

24 MR. WASYLYK: Okay, I've got it in front of me here.
25 Maybe we can pull that up for everybody else.

26 And so on page 7, it lists the benefits of what it
27 costs, natural gas of what it costs, comprising commodity
28 costs, upstream capacity costs and downstream distribution

1 system costs of what it costs for carbon, based on the 3LP
2 TPS scenarios, and the cost -- utility incentive costs and
3 utility program delivery costs. Is that fair?

4 MR. GINIS: That's correct, yes.

5 MR. WASYLYK: Then with the CPS, you would have taken
6 the costs and benefits that are listed under the TRC plus
7 cost-effectiveness test. Is that correct?

8 MR. GINIS: So for the CPS analysis, the opportunity
9 is screened using TRC. That's in the CPS.

10 MR. WASYLYK: Mm hmm.

11 MR. GINIS: So if you are looking for all the costs
12 and benefits, I think you understand what's in the TRC, but
13 how to refer it to the CPS.

14 So that opportunity is screened using TRC. We did a
15 second assessment that just compared it to the cost of
16 purchasing a compliance instrument.

17 MR. WASYLYK: Okay, I'll move on to the next one. I
18 think we've got what you're doing there. There might be a
19 follow-up from somebody else, but I think I'm okay there,
20 thanks.

21 Just give me one second; I might be able to cross off
22 a couple of questions here.

23 Actually, I'd like to turn our attention a little bit
24 to comparison between abatement cost-effectiveness and that
25 of RNG. I was wonder if you could compare and contrast the
26 cost test that Union has used for incremental abatement
27 programs with those used for effectiveness of RNG. And
28 then -- I'll leave it there, and then I can follow-up.

1 MS. FLAMAN: I would pull up, if we wanted to consider
2 what we did to analyze...

3 MS. DJURDJEVIC: Do you have your microphone on?

4 MS. FLAMAN: Looking at my binder, I'm not lining up
5 at the microphone.

6 So I would look at Board Staff 17 as a our response to
7 how we considered cost-effectiveness for the abatement in
8 the compliance plan.

9 Apologies for that delay. I wanted to make sure I
10 have the right page number. So it is Board Staff 17 and
11 that is on page 4.

12 This talks about how we analyzed and looked at cost-
13 effectiveness, and you can see for energy conservation we
14 use the MACC long-term carbon price forecast, and then for
15 RNG we use the MACC.

16 And I want to re-emphasize why we use the MACC. In
17 the July and -- I don't know how we enter things into
18 evidence, but in the July 20th letter from the OEB, they --
19 how I do get this --

20 MS. SEERS: I believe Ms. Flaman is referring to the
21 Board's July 20th, 2017, letter issuing the MACC and we
22 have copies of it, if it is appropriate to enter into
23 evidence.

24 MS. DJURDJEVIC: We'll make that exhibit KT1.3.

25 **EXHIBIT NO. KT1.3: BOARD LETTER DATED JULY 20, 2017**

26 MS. FLAMAN: I just want to emphasize why we
27 considered the MACC in looking at cost-effectiveness for
28 both energy conservation and RNG. The Board's letter

1 states that a single province-wide map will provide the gas
2 utilities and the OEB with a range of compliance options
3 along a spectrum of costs.

4 It provides consistent comparison of compliance
5 options to inform utilities' development of their
6 compliance plan, and to assist the Board's assessment of
7 the cost consequences of those compliance plans.

8 MR. WASYLYK: Thanks for that. So am I to take away
9 from your response there that the analysis was based on the
10 same costs and benefits for abatement and RNG?

11 When you did your cost-effectiveness analysis for your
12 potential incremental abatement activities, was that done
13 on the same basis that you tested the cost-effectiveness
14 for RNG?

15 MS. FLAMAN: I think it might be a point of
16 clarification, but what we are saying is we used the MACC
17 to do the RNG and we used the MACC to look at energy
18 conservation, and the other point around RNG, I think what
19 we need to also emphasize is that it remains cost-neutral
20 to ratepayers, so the relevant consideration for the RNG
21 proposal under cap-and-trade is the abatement attribute of
22 lesser carbon emissions from gas, not the cost of gas
23 itself.

24 So when you look at RNG there are no gas cost savings
25 to be considered with the RNG proposal; it is more a one-
26 for-one traditional -- one-for-one swap with traditional
27 gas, which keeps the ratepayer whole, and that's been
28 acknowledged.

1 MR. WASYLYK: Okay, so just for myself, I'm getting
2 back from a pat leave, so I'm kind of slowly getting
3 brought back to speed on things, so you essentially used
4 the MACC to do both, to -- right? Well, for RNG it was --
5 you need to understand that there's some differences with
6 what the inputs are there of the MACC; is that correct?

7 MS. FLAMAN: That's correct.

8 MR. WASYLYK: Okay. I'll move on.

9 My next question -- I'm not sure if you had an
10 opportunity to kind of think about this. I'll pose the
11 question and you can let me know if it's something that's
12 something that you are able to do or if it would be
13 worthwhile.

14 Please provide the following cost-effectiveness
15 calculations using a C -- well, using a different
16 adjustment factor than that which you applied from your
17 historic net-to-gross from DSM to the abatement activities
18 that you had considered.

19 Are you able to undertake to provide any of those
20 calculations with a -- so what I'm looking for is a cost-
21 effectiveness screen that doesn't use your historic DSM
22 net-to-gross values, but something that is less, and I've
23 proposed 15 percent.

24 MR. GINIS: Yeah, so I think we should pull up Exhibit
25 B, Staff 31 again, and I can show you the calculations
26 there, page 5.

27 I think what you are asking is, had we not used a
28 54 percent free ridership, or in this case it's also

1 1 minus 54 percent, to get to the 0.46 net-to-gross
2 adjustment, if, rather than 0.46 we had used 0.85, yeah, I
3 think it's simple to do there. You can see and you can
4 adjust that figure.

5 MR. WASYLYK: Would you undertake to provide that just
6 so it's on the record?

7 MR. GINIS: I can provide it now. So if you changed
8 the 0.46 to 0.85, the result is not 29 million M cubeds, it
9 is 54 million M cubeds.

10 MR. WASYLYK: So that's for industrial; is that right?
11 Or...

12 MR. GINIS: Yes, that's the only spot that we used the
13 54 percent adjustment.

14 MR. WASYLYK: And then I guess, you know, it would be
15 simple math to go ahead and adjust the commercial net-to-
16 gross rate to something that was not 42 percent, and we
17 could --

18 MR. GINIS: Well, we use 0.9 percent for commercial.

19 MR. WASYLYK: Pardon me --

20 MR. GINIS: You would change --

21 MR. WASYLYK: Would just --

22 MR. GINIS: -- .85 --

23 MR. WASYLYK: Yeah, that's fine. Right. Okay. Thank
24 you very much.

25 So if we were to -- I just want to see...

26 So I'm not sure if you've undertaken this analysis,
27 but have you run the cost-effectiveness of your -- of the
28 abatement measures that you had considered through both the

1 utility cost test and the TRC plus test as part of your
2 analysis?

3 MR. GINIS: So the opportunity identified in the MACC
4 uses what has been identified as the UCT. So if your
5 question is asking about the results of measures using the
6 UCT test specifically, that is provides in the MACC. There
7 is not a lot of detail in the MACC, but on pages 30 to 32
8 of the MACC there is table 7, and it shows each individual
9 measure, and then there are corresponding figures there, so
10 you can see which measures -- if they are negative they are
11 cost-effective using UCT or the test that is used in the
12 MACC, and if they are positive they are not cost-effective.

13 MR. WASYLYK: So then maybe where this is all going
14 to: Have you taken those results both from the MACC and
15 utility cost test and from the TRC plus test, which was
16 used in development of the DSM plans, to test those against
17 the cost of an allowance, which we can say, let's say it's
18 at \$18.99, to see if any of those fall below the cost of an
19 allowance?

20 MR. GINIS: So my understanding, if we go back to that
21 table, is that that's what shows if they are cost-
22 effective, not only relative to the cost of compliance
23 instrument, but to the cost of gas.

24 MR. WASYLYK: Okay. So you are simply relying on the
25 MACC and the results that flow from there; is that --

26 MR. GINIS: Our MACC analysis, yes, is based on the
27 MACC, yeah.

28 MR. WASYLYK: Okay. So you've noted a couple times --

1 this will be my last question on abatement stuff. I've
2 just got a couple other follow-ups on RNG accounting --
3 that you've done some analysis to look at what your
4 projected DSM targets will produce over the next couple of
5 years and compared that to what the potential is available
6 that's shown in the MACC.

7 And I think your response is, is that there is no --
8 there is no incremental available savings for you to be
9 achieved above your DSM potential; is that correct?

10 MS. FLAMAN: There is no incremental that's prudent,
11 yes.

12 MR. WASYLYK: That's prudent, so that's cost-
13 effective?

14 MS. FLAMAN: Well, I think as you consider, yes,
15 that's cost-effective. However, in addition to considering
16 cost-effectiveness, and with this I would point you back to
17 the guiding principles of the cap-and-trade framework that
18 we are ensuring we are compliant with, they look at a
19 balance of what is going to -- at risk and considering
20 abatement and compliance instruments, and so when we look
21 at a measure in DSM, you know that we consider beyond just
22 cost-effectiveness. We have to look at the market. We
23 have to consider market saturation, market penetration, is
24 it a technology that will be adopted. We also have to
25 consider our ratepayers and our customers, who will
26 benefit, what does that look like. So we have a range of
27 considerations when we look at a measure, to assess it
28 within our DSM Framework and what might form part of a

1 program.

2 So we can consider a behavioural program, for
3 instance. However, we know that we've had direction at the
4 last hearing that maybe that is not something that we
5 should be looking at at this time.

6 So I would say there's a number of different ways that
7 you can look at it beyond just cost-effectiveness, and we
8 need to be cognizant of that as well.

9 MR. WASYLYK: No, I appreciate the response and the
10 fullness of the response there, and since I -- and I
11 apologize for this, but I haven't had an opportunity to
12 look through everything in the record so far.

13 Have you provided that sort of analysis and all the
14 considerations that you've made in either determining yea
15 or nay to the abatement activities in responses to
16 interrogatories, or your pre-filed evidence?

17 MR. GINIS: I think to summarize what we've done in
18 the MACC analysis is, at an overall level, we have compared
19 the MACC opportunity to our DSM forecasts and we have
20 concluded that the forecasts are higher than DSM.

21 MR. WASYLYK: Okay, so maybe we can go into a couple
22 of specific examples, just so you can clarify for me so
23 that I'm clear on this.

24 So if we were to look, and the MACC summarizes the
25 potential for the -- at the mid-range price in a couple of
26 tables and graphs. Maybe we can pull it up. I think it's
27 on page 15, table 3, and it's a table that lists various
28 customer abatement end use. And then it's got a number of

1 different sort of end use -- yeah, there we go, that's it
2 right there.

3 So as you said, you've done the analysis to see if
4 there is any remaining potential there. So we'll just pull
5 out a couple of the major significant ones where it seems
6 like there is potential here from the industrial sector,
7 and that's HVAC, direct water heating system, and steam hot
8 water system, the top three rows.

9 So have you conducted specific analysis of those three
10 end uses and compared those to your current suite of DSM
11 programs to understand if there is additional opportunities
12 that exist?

13 MR. GINIS: I believe this table looks like it's --
14 well, it looks like it has several different sectors
15 that -- you don't have to pull this up, but I would refer
16 you to Exhibit 3, tab 4, appendix A, pages 5 and 6.

17 So what we did was we looked at the segments,
18 commercial, industrial and residential as a whole, to see
19 whether our DSM forecasts were higher or lower than what
20 was identified in the MACC.

21 I think you are asking about specific end use,
22 specific measures even lower than that.

23 What did do is we looked at -- if we can go to page 36
24 of the MACC, you will see it's -- I believe your commercial
25 end use, that that column there from that table you were
26 looking at is on the left. And then more detailed on the
27 right is the measures within the end use.

28 We looked at the measures that are on this list. So

1 after looking at the total potential and, for commercial
2 specifically, identifying that our programs were forecast
3 to achieve higher than what's identified in the MACC. We
4 also looked at the specific measures and we just wanted to
5 see if there are any measures here that are not applicable
6 through our DSM program, because that would identify a gap,
7 and we explained that at Exhibit B, Staff 31, page 5.

8 So I believe this is answering your question, but
9 there's three measures that are listed there that are not
10 included in our DSM programs. And the rationale for not
11 pursuing those through our DSM program is that -- and we
12 reference our DSM midterm submission, part 2, requirement
13 1, that in an effort to reduce pre-ridership on those
14 specific routine maintenance measures, we no longer put
15 them in our DSM program and we don't think it is
16 appropriate to include them in this plan as well, if it
17 wasn't appropriate for the DSM Framework.

18 MR. WASYLYK: So these three measures here are the
19 only three measures that are on the list, from industrial
20 and commercial, that are not included within Union's
21 current suite of DSM programs?

22 MR. GINIS: That's correct. We have a custom program
23 that basically captures all of it, and understanding that
24 our forecasts are greater than what the MACC identified,
25 that's how we came to the conclusion that there were no
26 gaps.

27 MR. WASYLYK: Okay. So just to understand your
28 analysis a little bit more, when you looked at the forecast

1 of your current DSM programs and the measures there, do you
2 have a table put together that compared the forecasted at
3 the measure level of your current DSM programs to the table
4 that we just saw from the MACC?

5 MR. GINIS: If we can go back to that table 11 on the
6 MACC, pages 36 to 38, it doesn't identify forecasted
7 opportunity there; it's just the cost-effectiveness of
8 each. So we wouldn't be able to...

9 MR. WASYLYK: Right. I suppose then we could take it
10 a little up, and we could bring this back to table 3 on
11 page 15, where it shows forecasted opportunity at the end
12 use level.

13 And could you provide the analysis there where you've
14 compared your current DSM programs that address industrial
15 HVAC and the forecasted potential to the opportunity that's
16 been presented in the MACC?

17 MR. GINIS: Well, so we didn't do it at that analysis;
18 that is kind of in the middle. We did it at the top, and
19 then compared the measures. So if the top number...

20 MR. WASYLYK: You did it at the industrial sector
21 level?

22 MR. GINIS: Yes.

23 MR. WASYLYK: Then you went down to the measure level
24 to see do we have all those measures. But you didn't do
25 this middle part where within that sector for these
26 particular end uses, what are we projected to achieve.

27 MR. GINIS: That's correct, because we felt that if
28 the total amount in our DSM program was greater than the

1 total amount in the MACC, then the end use segments was not
2 as important to look at. It was more important to look at
3 specific measures to see if there's anything that we are
4 not including in the DSM program.

5 MR. WASYLYK: And that could be a perfect analysis.
6 But I'm wondering would you undertake to -- and is this
7 within your capabilities, to do that middle set of
8 analysis, to look at the end use opportunity that's been
9 presented here in the MACC and compare that to your
10 forecasted DSM programs?

11 And I guess you could just look at the program you've
12 got right now and see where you are going to get the
13 statements from.

14 [Witness panel confers]

15 MR. GINIS: I haven't seen -- so in order to compare
16 this to our DSM forecast, we would need to have our
17 forecasted results by end use. I haven't seen that. I
18 don't know if that's something we can put together, but I
19 can make best efforts to see if we can do that.

20 MR. WASYLYK: If you could, yes. I think you should
21 be able to find this information. I hope you should be
22 able to find it -- looking at a number of the different
23 pieces that you guys have got available to you, I think you
24 should be able to put it together. So I'll leave it to you
25 to do your best to provide that.

26 So, Luba, just before you provide a number -- you can
27 go ahead and provide a number, and then I'll ask...

28 MS. DJURDJEVIC: It will be undertaking JT1.8.

1 UNDERTAKING NO. JT1.8: TO PROVIDE THE ANALYSIS OF
2 CURRENT DSM PROGRAMS THAT ADDRESSES INDUSTRIAL HVAC
3 AND THE FORECASTED POTENTIAL TO THE OPPORTUNITY THAT'S
4 BEEN PRESENTED IN THE MACC

5 MR. WASYLYK: Yes, so it's JT1.8. I am going to
6 actually ask if you are able to do this for both commercial
7 space heating and residential space heating as well. So
8 that's for Union to compare its current forecasted DSM
9 potential or savings and industrial HVAC, industrial direct
10 heating, and industrial steam hot water systems, as well as
11 commercial space heating and residential space heating,
12 with what is summarized in table 3 at page 15 of the MACC.

13 So if we're okay on that, we've just got one other
14 follow-up area with respect to issue number 4, deferral and
15 variance accounts, and I'm happy to walk you through these
16 as well.

17 So these in response to a couple of interrogatory
18 responses. One is Exhibit B, Staff 6, and the other is
19 LPMA 8, and we are just looking to fully understand exactly
20 the mechanics of the account and ensure that we know how
21 they're working.

22 So my first question is that it appears that Union and
23 Enbridge treatment of the actual costs as related to RNG
24 procurement is different, and it appears to us that
25 Enbridge intends to reflect gas cost variances in the PGVA
26 and allowance cost variance in the GHG customer variance
27 account while it appears that Union does not do that.

28 Can you confirm that our understanding is correct?

1 MS. NEWBURY: So Union and Enbridge's proposal is to
2 treat actual costs related to RNG procurement gas costs as
3 aligned. You are correct, the reference is provided. It
4 was not fully clear. There is an additional reference,
5 which is ED.11B, which shows both gas and carbon, and that
6 the gas costs will be reflected in the PGVA and the carbon
7 costs in the customer facility deferral accounts
8 proportionately.

9 MR. WASYLYK: Okay. So at the end of the day it will
10 be the same for both utilities; is that correct?

11 MS. NEWBURY: Correct.

12 MR. WASYLYK: Does that sound...

13 MS. KLEIN: How do plan to do that for the actual
14 costs? So when you sign a contract, how will this be done
15 for the actual costs?

16 MS. NEWBURY: So when we sign a contract the costs
17 will be divided into three components. One is a gas cost,
18 the other is a carbon cost, and then the third piece would
19 be the carbon premium, so the gas cost component of it will
20 be based on a forecast of gas costs for the period of the
21 contract.

22 MS. KLEIN: Okay.

23 MS. NEWBURY: Similarly, the carbon will have a
24 forecast that we will use for the term of the contract, and
25 those will be accounted for as if they were the actual
26 costs, so similar to if we were purchasing those
27 commodities separately. And then the third component,
28 which is the premium for the carbon cost, that would be --

1 we would apply government funding against that cost, so
2 there would be no impact to our ratepayers.

3 **FOLLOW-UP QUESTIONS BY MR. BRETT:**

4 MR. BRETT: Could I just ask a quick question there,
5 to follow up on that? The third part of that cost, the
6 government-funded part, is that locked in by the contract?
7 In other words -- or is that -- is there a possible
8 fluctuation in that? What I'm trying to get at is, I think
9 in one of your statements you said that the RNG does not
10 pose any risk to ratepayers.

11 I guess the Board made the statement in the Procedural
12 Order No. 2 that we don't have to approve the RNG program
13 because there is no impact on ratepayers. And what I'm
14 hearing this question go to is, under what circumstances
15 would there be impacts on ratepayers? And I guess you're
16 saying, as I understand it, that the gas cost changes or
17 the compliance cost changes from the amounts used in their
18 forecast, then there would be a standard adjustment in the
19 deferral account that ratepayers would pay if it went in
20 one direction; right? Have I got that right? Is that the
21 gist of --

22 MS. NEWBURY: You've asked a couple of questions. I
23 think your first question was how are we managing the
24 contract term for the -- in consideration of the premium --

25 MR. BRETT: Right.

26 MS. NEWBURY: -- and the related government funding.

27 MR. BRETT: Right.

28 MS. NEWBURY: So for each contract that we enter we

1 will ensure that there is sufficient government funding set
2 aside for the term of that contract to cover that cost,
3 which is why we're proposing to have a fixed cost in the
4 contract for the term. So it does not fluctuate.

5 MR. BRETT: So that government money is in your --
6 it's in your account at that point, or how is that done?

7 MS. NEWBURY: The exact manner in which it will be
8 handled is still being discussed, but in principle,
9 regardless of whether we hold it or whether it's held by a
10 government agency, those would be the conditions that we
11 would require.

12 MR. BRETT: It's trustee'd in some fashion or another,
13 legally --

14 MS. NEWBURY: There would have to be -- if the money
15 was not in, I guess Union's hands to manage, there would
16 have to be a contractual arrangement between us and the
17 government body that is holding it to ensure that was, in
18 fact, the case.

19 MR. BRETT: Okay. Right. Now, about the other two
20 pieces, the answer is that there is a deferral account in
21 operation, and the only way that the ratepayer could be on
22 the hook is if the forecasts are -- if the actual gas costs
23 or the actual compliance -- compliance price is -- either
24 price or volume, I guess, is different than what you
25 forecast; is that right? Or is that difference picked up
26 by Union? Who bears that risk, I guess?

27 MS. NEWBURY: So all costs for gas and carbon will
28 flow through the deferral accounts.

1 MR. BRETT: Right. All right. Thank you.

2 MS. NEWBURY: The way that we're structuring the
3 contracts is that the price will be set for the term of the
4 contract, so the price will not vary. So therefore, the
5 component pieces, the price that we allocate will not vary
6 over the term of the contract, so it is those component
7 costs that will flow through each of the deferral accounts.

8 MR. BRETT: And how long is the contract typically, do
9 you see?

10 MS. NEWBURY: I'm sorry?

11 MR. BRETT: How long will the contracts be?

12 MS. NEWBURY: The RFP process is still underway. We
13 proposed up to ten years.

14 MR. BRETT: Thank you.

15 **FOLLOW-UP QUESTIONS BY MR. RUBENSTEIN:**

16 MR. RUBENSTEIN: Can I just ask one follow-up? Just
17 with respect to the agreement with government, just from
18 the language and response to the last set of questions, do
19 I understand that there is no -- currently you actually
20 have not signed a contract with the government?

21 MS. NEWBURY: That is correct. Those conversations
22 are still underway.

23 MR. RUBENSTEIN: Have they materially changed or moved
24 forward from, let's say, P02, or at least when the -- when
25 the interrogatories were filed on the RNG evidence? Have
26 you materially moved closer to actually realizing an
27 agreement with the government from the interrogatory
28 responses on the RNG?

1 MS. NEWBURY: So I'm not directly involved in the
2 conversations, but they have been progressing.

3 **FOLLOW-UP QUESTIONS BY MS. KLEIN:**

4 MS. KLEIN: I just have a follow-up. Okay. So for --
5 there's the three components, the gas costs, the carbon
6 costs, and the carbon premium. For the gas costs and the
7 carbon costs, your actuals are whatever the forecast is
8 when you signed the contract, so the forecast for the
9 carbon will be based on the OEB's long-term price forecast,
10 and that's -- that changes on an annual basis, and your gas
11 costs will be whatever that forecast is at that time, and
12 there is no true-up to what the actual gas costs are or
13 what the actual cost of carbon is; is that correct?

14 MS. NEWBURY: So we will not change the terms of the
15 contract. The terms of the contract will remain in place
16 for the ten years, and I believe the answer to your other
17 question is, any variances between the reference price set
18 in QRAM and the gas costs, they do get deferred to the
19 PGVA.

20 MS. KLEIN: So there is a true-up?

21 MS. NEWBURY: Yes.

22 MS. KLEIN: So there is a true-up for the gas costs,
23 and you are going to be doing a true-up for the carbon
24 costs?

25 MS. NEWBURY: Correct.

26 MS. KLEIN: Oh. Okay.

27 MS. DJURDJEVIC: Okay. So probably a lot of other
28 questions that can follow from this, but we do need to give

1 our reporter a break and ourselves, and we will have a
2 discussion -- see if Staff is finished and if we go back to
3 Mr. Elson or the next examiner. Let's say 20 minutes, so
4 come back at 20 to 12:00. Thank you.

5 --- Recess taken at 11:21 a.m.

6 --- On resuming at 11:43 a.m.

7 MS. DJURDJEVIC: Welcome back, everyone. We are
8 going to go back to Mr. Elson to wrap up his questions.
9 He's indicated he'd be about 15 minutes, and one of the
10 other intervenors has indicated they will be reducing their
11 questions by 15 minutes. So hopefully, we are more or less
12 on track, or we'll get there soon.

13 Back to you, Ms. Elson.

14 MS. SEERS: If we could wait a few minutes for Ms.
15 Newbury who is coming back, and she has a very brief
16 clarification to make before we move on.

17 MS. DJURDJEVIC: Sorry about that.

18 MS. NEWBURY: I would just like to clarify the last
19 part of the conversation, in particular the use of the term
20 "true-up."

21 So, probably the best way to make sure that the record
22 is clear is just to walk through the math quickly. So when
23 we set the prices for the RNG contracts, they will be fixed
24 for the term of the contract and we will fix a gas
25 component, a carbon component, and then a premium for the
26 market price of the -- or the market premium of the carbon.

27 So I for the gas component of the RNG contract price,
28 what will go into the deferral can account is the

1 difference between the quarterly reference price and the
2 forecasted gas cost component of the contract.

3 That forecasted gas component of the contract will
4 remain fixed for the term. So the only thing that will
5 vary in that math is the quarterly reference price.

6 Similarly, on the carbon component of the contract,
7 what will go into the deferral account is the difference
8 between the annual cost of carbon and the forecasted carbon
9 component of the RNG contract, which again is fixed for the
10 term of the contract.

11 MS. KLEIN: Will you update your IRs to reflect this,
12 your interrogatory response?

13 MS. NEWBURY: We can update the IR to make sure it is
14 clearly stated in that manner.

15 MS. KLEIN: Can we have an undertaking for that?

16 MS. DJURDJEVIC: Yes, that will be JT1.9, and that's
17 to update -- do we know which interrogatory response number
18 it was? Maybe it appears in a couple of places, just to
19 update in the interrogatory responses to explain the
20 accounting of the fixed price of RNG and the difference --
21 and how the differences will be treated with respect to the
22 cost of gas and the cost of carbon.

23 **UNDERTAKING NO. JT1.9: TO UPDATE THE INTERROGATORY**
24 **RESPONSE TO EXPLAIN THE ACCOUNTING OF THE FIXED PRICE**
25 **OF RNG AND HOW THE DIFFERENCES WILL BE TREATED WITH**
26 **RESPECT TO THE COST OF GAS AND THE COST OF CARBON**
27 **FOLLOW-UP QUESTIONS BY MS. GIRVAN:**

28 MS. GIRVAN: I had a quick follow-up on that.

1 So are ratepayers completely shielded from -- oh, it's
2 Julie Girvan.

3 Are ratepayers completely shielded from paying the
4 premium throughout the term of the contract?

5 MS. NEWBURY: Yes, that will be the way that we
6 structure the contract and the funding associated with the
7 contract.

8 MS. GIRVAN: Okay. And what happens if you've got a
9 contract with a supplier, but the government ends up
10 pulling the funding during the term of the contract?

11 MS. NEWBURY: We answered that question in Board Staff
12 4. So again, we will associate the funding with a specific
13 contract and we will only enter into that contract where
14 the funding will be available for the full term of the
15 contract.

16 MS. GIRVAN: Okay, thank you.

17 MS. DJURDJEVIC: All right. So back to you, Mr.
18 Elson.

19 **CONTINUED QUESTIONS BY MR. ELSON:**

20 MR. ELSON: Thank you. Mr. Charleson, could you pull
21 up B.GEC.22? And then after that, I'm going to refer to
22 the document which I gave you on a stick, just so you can
23 have in ready.

24 So B.GEC.22, which is just getting pulled up, if could
25 you turn to the second page of this interrogatory, the
26 second-last paragraph where there are two bullets.

27 Just by way of a bit of background so we can situate
28 ourselves, this was a question posed to Union about how

1 incremental cap-and-trade driven conservation should come
2 to fruition. And the answer was that that should happen
3 through the DSM Framework and that a number of adjustments
4 should be made to allow that to happen, and this paragraph
5 here cites two of those adjustments.

6 Are you with me there?

7 MS. FLAMAN: Yes, I see the paragraph.

8 MR. ELSON: I'm just wanting to refer to the first
9 bullet, which is adding the long-term carbon price forecast
10 to the DSM Framework cost-effectiveness test to ensure the
11 benefits of the avoided cost of carbon is captured within
12 the DSM Framework. And I think what this is trying to say
13 is that you would need to update the assumptions regarding
14 avoided carbon costs to reflect the long-term carbon price
15 forecast. Is that what you're saying?

16 MR. GINIS: This is a suggestion for the DSM Framework
17 that now that we have carbon pricing in Ontario, one of the
18 options could include adding the long-term carbon price
19 forecast in the TRC test within the DSM Framework.

20 MR. ELSON: Thank you. If we could turn to a document
21 that I provided to Union, which is an excerpt -- and I'm
22 going to -- they are related topics, I'm not moving on --
23 this is an excerpt from EB-2015-0049. It is Exhibit B2.3,
24 page 5, and I've provided this because this might make
25 these questions a little bit faster.

26 Perhaps this could get marked as an exhibit?

27 MS. DJURDJEVIC: That is Exhibit KT1.4.

28 **EXHIBIT NO. KT1.4: EXCERPT FROM EB-2015-0049**

1 MS. SEERS: Mr. Elson, before you move on, perhaps you
2 could explain what proceeding this is, and whose evidence
3 it is?

4 MR. ELSON: This is Union's evidence and this is in
5 Union's 2016 to 2020 DSM plan.

6 MR. O'LEARY: Mr. Elson, sorry to interrupt, but it
7 appears that the evidence you've just pulled actually
8 identifies Enbridge witnesses.

9 MR. ELSON: Okay. Well, then I have clearly made a
10 mistake in trying to pull up this reference in the midst of
11 Board Staff's questions. I don't have to rely on this, but
12 my understanding is that there is a similar table for
13 Union, and so we can use that table for illustrative
14 purposes, actually, if we could go back to it.

15 And so here you have the 2018 programs, and you have a
16 calculation you see there of the TRC and the PAC net
17 benefits; do you see that there?

18 MR. GINIS: Yes, we see that.

19 MR. ELSON: And so the question is whether you can,
20 for Union's equivalent figures, recalculate the PAC and TRC
21 net benefits, adding the long-term carbon price forecast to
22 ensure the benefits of avoided cost of carbon is captured;
23 in other words, to implement that suggestion that we had
24 discussed from GEC 22. Is that something that you could
25 calculate?

26 MR. GINIS: Are we talking about DSM Framework policy
27 issues?

28 MR. ELSON: No, no, I'm talking about conservation.

1 MR. GINIS: In which compliance plan or which
2 framework?

3 MR. ELSON: Well, I guess it gets a bit muddied,
4 because in GEC's interrogatory they asked how should
5 incremental cap-and-trade-driven conservation come about,
6 and Union's suggestion is that that occur in the DSM
7 Framework, so you may be describing it as a DSM Framework.
8 I would describe it as cap-and-trade-driven conservation.
9 But this is being used just to illustrate the suggestion
10 that you had, which I think makes a lot of sense, which is
11 that you update the assumptions regarding the avoided cost
12 of carbon to reflect the long-term carbon price forecast,
13 and what I'm looking for is an illustration of that with
14 your 2018 DSM plans.

15 And I can add one caveat, actually, which is of course
16 that you would provide an undertaking to do that on a best-
17 efforts basis. If you go back and you look at your figures
18 and you say, look, we can't do this, it's possible, and you
19 explain why, then of course that would be the end of the
20 story, but if you can, that would be helpful.

21 MS. FLAMAN: So I just want to clarify to make sure we
22 understand and can meet your request. As Mr. Ginis noted,
23 the -- there's two frameworks happening. There is a DSM
24 Framework, as we all know, and a cap-and-trade framework.

25 Including -- and this was our suggestion -- the long-
26 term carbon price forecast within the DSM Framework should
27 you want to look at incremental abatement as part of a DSM
28 Framework review is what we've suggested, so again, that

1 would come back to consideration of the DSM Framework, and
2 I would suggest it's outside the scope of the cap-and-trade
3 framework in the 2018 compliance plan in front of us that
4 we are trying to comply with.

5 That said, again, I would emphasize that the value of
6 discussing long-term carbon price forecast within DSM
7 belongs in the DSM Framework review, not a cap-and-trade
8 framework review.

9 MR. ELSON: So I guess the trouble that we have is
10 that in response to questions about where incremental cap-
11 and-trade-driven conservation should take place the
12 response of Union is to do it in the DSM Framework.

13 I think there's questions that are relevant to both
14 proceedings, and seeing as we are here now today, you know,
15 we'd like to have an illustration of what that would look
16 like.

17 I'm very short on time, so if you are going to object
18 to it as being irrelevant, then let's do that and move on,
19 but if you can make a best-efforts calculation then that
20 would be appreciated.

21 MS. FLAMAN: We can make a best-efforts calculation.

22 MR. ELSON: Okay. Thank you.

23 MS. DJURDJEVIC: That will be Undertaking JT1.10.

24 **UNDERTAKING NO. JT1.10: TO MAKE BEST EFFORTS TO**
25 **RECALCULATE THE PAC AND TRC NET BENEFITS, ADDING THE**
26 **LONG-TERM CARBON PRICE FORECAST TO ENSURE THE BENEFITS**
27 **OF AVOIDED COST OF CARBON IS CAPTURED; IN OTHER WORDS,**
28 **TO IMPLEMENT THAT SUGGESTION THAT WE HAD DISCUSSED**

1 **FROM GEC 22.**

2 MR. ELSON: Okay. If I could move on, please, to
3 B.ED.21, and this should be back in the interrogatories for
4 this proceeding. And so there's a -- if we could turn to
5 attachment A. And you will see that attachment A is part
6 of a larger document. Do you see that there? I'm just
7 looking for an undertaking to provide the complete document
8 instead of just excerpts.

9 MS. FLAMAN: We can -- we can -- we will need to check
10 with the authors of the study, ICF, to make sure we can
11 provide what's in the study completely before we could
12 commit to providing it to you, and if they say yes --

13 MR. ELSON: You can put that response in the
14 undertaking.

15 MS. FLAMAN: Yes.

16 MS. SEERS: And just so -- our understanding is that
17 it may be confidential, so that may be the response, but
18 we'll check.

19 MR. ELSON: We'll address that if that's the response.
20 Could we have an undertaking?

21 MS. DJURDJEVIC: That is JT1.11.

22 **UNDERTAKING NO. JT1.11: TO FILE THE COMPLETE VERSION**
23 **OF ATTACHMENT A TO B.ED.21, IF POSSIBLE**

24 MR. ELSON: And I have the same question for
25 attachment B, which is also part of a larger document.
26 Could I have an undertaking to provide the whole...

27 MS. DJURDJEVIC: JT1.12. In respect of which --

28 MR. ELSON: Which is Appendix B to Exhibit B, ED 21.

1 **UNDERTAKING NO. JT1.12: TO PROVIDE THE COMPLETE**
2 **DOCUMENT IN ATTACHMENT B INSTEAD OF EXCERPTS.**

3 MS. FLAMAN: Same. We would need to check with the
4 author and make sure that the confidentiality is addressed.

5 MR. ELSON: So if we could look at page 2 of Exhibit
6 -- oh, sorry, page 2 of attachment B. The page numbering
7 gets a bit confusing, because there is multiple page
8 numbers. I am looking at the page numbering at the top. I
9 can say that is page 128 of the PDF that I have at least.
10 Yes, that's it.

11 And on the right-hand side below the bolded writing
12 there's a paragraph that says "to meet a 2030 target" -- do
13 you see that there?

14 MS. FLAMAN: Umm...

15 MR. ELSON: And so just by way of a bit of background,
16 this is an ICF report discussing cap-and-trade and
17 Ontario's carbon targets; is that right?

18 MS. FLAMAN: Yes.

19 MR. ELSON: And so ICF's analysis is that to meet a
20 2030 target natural gas and transportation fuel would need
21 to decline by 50 percent; do you see that there?

22 MS. FLAMAN: I see the statement, yes.

23 MR. ELSON: Does Union Gas have a long-term plan to
24 protect its customers as the carbon target drops? And if
25 so, can you file that?

26 MS. FLAMAN: I take your question to mean are we
27 addressing risk. And as I noted earlier, we absolutely are
28 considering risk. As we prepare our compliance plan we

1 look to optimize risk for the ratepayer and absolutely will
2 not subject the ratepayer to undue risk.

3 So to that end, and in response to your question, I
4 would call you to Exhibit 3, tab 6, page 19 of 25.

5 So in this we address risk mitigation in compliance
6 planning. It's important to note in the compliance
7 planning that we have addressed reviewing and assessing
8 applicable statutes. We are looking at governance
9 structure. We are employing monitoring control processes,
10 such as re-forecasting processes, to identify and respond
11 to changes in Union's compliance obligation.

12 MR. ELSON: Now, I've seen that, and it's pretty high-
13 level stuff, and I don't think it goes out to 2030 with a
14 plan to address where the targets are going to be at that
15 stage.

16 I'm just going to ask this one more question on this
17 area before moving on. Do you have something that
18 specifically maps out how you can protect your customers in
19 a world where, as this slide says here, to meet the 2030
20 natural gas target, natural gas needs to decline by 50
21 percent.

22 In that kind of world, which is twelve years from now,
23 do you have a plan settings out, well, RNG can address this
24 aspect of it, conservation can address this aspect of it,
25 for example?

26 MS. FLAMAN: I should just note that our button has
27 fallen off of the microphone. So if there's a delay there,
28 that's why.

1 Sorry, just back up from that, what I would say in
2 response to your question is that we are very cognizant of
3 compliance planning. We want to make sure that we are
4 meeting the cap-and-trade framework guiding principles, so
5 we look at that when we look at compliance planning as
6 well.

7 And to your point addressing what's happening in the
8 future, we have ensured compliance with the requirements
9 for the 2018 plan. And moving forward, we will continue to
10 use the tools that the Board has given us, which is the
11 MACC and the long-term carbon price forecast to look and
12 consider carbon costs.

13 MR. ELSON: Okay, I'll take that answer as it is.

14 If I could move to the next page, which is 129 in this
15 PDF, which is back in exhibit B.ED.21, page 3 of attachment
16 B, which is just the next page. And at the bottom of the
17 page, in the second bullet below the chart, it says this is
18 not the UG/EGD view.

19 Can you provide an undertaking to provide the
20 underlying documents that describe what the UG/EGD view is?

21 MS. FLAMAN: I did not author this document. ICF did,
22 and I believe that is the context for why they stated that.

23 So I don't understand how we can undertake to provide
24 something that is -- I'm a little confused by the question,
25 I guess because this is ICF's statement as the authors of
26 this.

27 MR. ELSON: I'll take you to another slide in a
28 second, but maybe we'll do a little bit of background.

1 If you look on this chart here, it shows a 40
2 megatonne gap; do you see that there? And the top of this
3 slide says ICF Ontario emission reduction forecast. And
4 then if you go down two more pages to the to page 5 of
5 attachment B, slide 5, which is 131 of this PDF, and then
6 there is the reference to the UG/EGD Ontario emission
7 reduction forecast.

8 So this document is talking about ICF's work and there
9 being a distinction between what ICF sees and what Union
10 Gas sees. And I'm just asking for the underlying analysis
11 for what's described here as the Union Gas/ Enbridge Gas
12 emission reduction forecast.

13 MS. FLAMAN: I'll reconfirm my understanding of this
14 study. In stating that it is not the UG/EGD view, that
15 does not mean that there was analysis conducted behind
16 this.

17 What I would say is this slide reflects Ontario's
18 emission profile reductions...

19 MR. ELSON: Sorry, what slide are you referring to?

20 MS. FLAMAN: I'm sorry, I'm on the slide that's up
21 right now. And actually, the whole presentation, which
22 emphasizes that it's dealing with overall emission
23 reductions, not those just targeted to natural gas.

24 In addition that, I would say again that with their --
25 I don't know where this statement came from, so I can't
26 undertake to provide you analysis underneath that
27 statement.

28 MR. ELSON: I think that's fair because you weren't

1 the one who participated in this process. But I think it's
2 also clear that this document outlines ICF's View, and then
3 separately makes the explicit distinction saying that Union
4 Gas's view is different and says that Union Gas's view is
5 described on page 5 here.

6 I guess what I'm looking for is an undertaking for you
7 to go back, talk to the folks who were responsible for
8 this, and ask them if they can provide the underlying
9 information relating to Union Gas's Ontario emission
10 reduction forecast.

11 MS. FLAMAN: I can go back and ask for that.

12 MR. ELSON: Thank you.

13 MS. DJURDJEVIC: That's JT1.3.

14 **UNDERTAKING NO. JT1.13: TO PROVIDE THE UNDERLYING**
15 **INFORMATION RELATING TO UNION GAS'S ONTARIO EMISSION**
16 **REDUCTION FORECAST, IF IT EXISTS AND IF IT IS**
17 **AVAILABLE, AND TO SUMMARIZE HOW UNION GAS'S ANALYSIS**
18 **VARIES FROM THE ICF ANALYSIS, TO THE EXTENT THAT IT**
19 **SEPARATELY EXISTS**

20 MS. SEERS: And just to clarify again, if it is
21 available and if it exists.

22 MR. ELSON: We can't expect you to provide something
23 that doesn't exist, so yes. And we would also ask -- and
24 perhaps that can be included in the same undertaking, just
25 to summarize how Union Gas's analysis varies from the ICF
26 analysis to the extent that it separately exists.

27 MS. FLAMAN: To the extent that it exists and as
28 noted, yes.

1 MR. ELSON: Thank you. I think I am out of time here.

2 I will mention for the record that I don't think my
3 colleague specifically committed 15 minutes towards my
4 time, but some amount of time. I also had an initial five
5 minutes, so I don't want to take away all of her time.

6 So maybe that's something that can be dealt with at
7 the break.

8 MS. DJURDJEVIC: Okay, thank you. On our schedule,
9 the next questioner is from Green Energy Coalition, and
10 that's Mr. Poch.

11 **QUESTIONS BY MR. POCH:**

12 MR. POCH: Thank you. First a couple of follow-ups.
13 Board Staff was asking you about your comparisons of your
14 DSM portfolio to what the CPS and the MACC found out there.
15 And I think you've talked about the MACC a lot, and you
16 spoke about the CPS, and I want to make sure I understand
17 what you did.

18 My understanding, correct me if I'm wrong, is you
19 isolated the TRC positive opportunities that the CPS found,
20 and then you compared those opportunities to the carbon
21 abatement allowance purchase costs long-term forecast, and
22 in doing so, you took from the TRC analysis the utility
23 cost of those opportunities. But you did not deduct the
24 avoided commodity costs? Is that correct? You took the
25 program costs of those opportunities, but not the
26 offsetting gas commodity savings?

27 MR. GINIS: So in the CPS, the initial cost-
28 effectiveness test was TRC, which would include the cost of

1 gas, among other things. We took that opportunity,
2 specifically the cost to drive that opportunity which would
3 be the cost -- which would be the specific program costs
4 and incentive costs.

5 MR. POCH: Yes?

6 MR. GINIS: And compared that to cost to the
7 alternative of purchasing a compliance instrument and to do
8 that, we looked at the long-term carbon pricing forecast.

9 MR. POCH: And what you didn't include in that in that
10 comparison was the gas commodity costs that the
11 conservation would avoid.

12 MR. GINIS: That's correct. My understanding is that
13 in the TRC, that's already included. Further to that...

14 MR. POCH: Let me stop you there and say it is, of
15 course, in the TRC. But as I think you agreed a moment
16 ago, your use of the TRC information from the CPS was
17 simply to identify the opportunities.

18 When you actually compared, when you did your
19 numerical analysis you just took, as I think you've just
20 said -- correct me if I'm wrong, I want this very clear on
21 the record -- you took the program costs and, I guess, the
22 measure costs.

23 MR. GINIS: Incentive costs.

24 MR. POCH: Incentive costs, I'm sorry, program costs
25 and the incentive costs, and you compared that to the
26 avoided carbon abatement.

27 MR. GINIS: Long-term.

28 MR. POCH: Long-term.

1 MR. GINIS: Long-term price forecast.

2 MR. POCH: So let's be very clear. In that
3 comparison, you didn't capture the avoided gas cost.

4 MR. GINIS: Yes, in the second comparison. But I was
5 just noting that in the first comparison or the first
6 screening test to identify the opportunity, it's in there.

7 MR. POCH: Of course.

8 MR. GINIS: And I would just also want to note one
9 more thing, that we used the MACC obviously as the
10 principal tool; that is the Board's tool.

11 The MACC, as we've already identified on table 7,
12 includes the cost of gas. It was not our intention to
13 recreate that process. The Board developed it for that
14 purpose. So by adding the cost of gas in the manner that
15 you are clarifying that we did not, to me would essentially
16 be recreating the MACC in our own manner, which was not at
17 all our intention.

18 MR. POCH: Which really brings me to my other follow-
19 up question, which is, did you compare the savings
20 potential between what the MACC tells you is out there and
21 what the CPS tells you is out there? Let me go a step
22 further. We did, and it looks like the CPS finds way more,
23 without getting into the aggressive scenarios, just finds
24 way more potential than the MACC. Did you note that, first
25 of all?

26 MR. GINIS: Well, we identified that. I think
27 that's --

28 MR. POCH: Sure.

1 MR. GINIS: -- clear in looking at the savings
2 opportunity that CPS compared to the MACC.

3 MR. POCH: And that's in the constrained scenario;
4 correct?

5 MR. GINIS: I haven't assessed that in each scenario,
6 but I think what's important to understand is the
7 differences between the MACC and the CPS. I don't have a
8 complete comparison of the two, but I know that one of the
9 -- one of the comparisons is the aggressiveness of adoption
10 rates, and so the MACC was developed specifically for this
11 compliance plan, for this cap-and-trade framework. And
12 work was done from the consultant Board Staff and advisory
13 group to translate the data from the CPS using different
14 adoption rates than was included in the CPS to find a
15 potential that is relevant for this compliance plan.

16 MR. POCH: So if I understand you correctly, the CPS
17 took a different mix of approaches to the measures than the
18 MACC did, and so the CPS gets better penetration in its
19 assumptions, for example, than the MACC does, or did -- you
20 tell me. What was -- was that -- does that exemplify the
21 kind of difference we're talking about?

22 MR. GINIS: So I think you said that it provides
23 better penetration?

24 MR. POCH: No, I think I'm informed that one of the
25 distinctions was that the MACC and the CPS use different
26 incentive rates, customer incentive rates, and so that
27 drives different levels of penetration. Does that conform
28 with your understanding?

1 MR. GINIS: I think it would be helpful to pull up the
2 CPS, because it's in there, and it's more clear than I
3 think I can provide. And perhaps -- I don't think we've
4 marked this as an exhibit yet.

5 MS. SEERS: We have copies. We can do so.

6 MR. GINIS: Great.

7 MR. POCH: Mr. Neme knows (sic) whether you are going
8 to pick up his excess baggage allowance on the way home.

9 [Laughter]

10 MS. DJURDJEVIC: We need to make this an exhibit.
11 KT1.5.

12 **EXHIBIT NO. KT1.5: THE CPS.**

13 MR. GINIS: So on page 11 of the CPS --

14 MR. POCH: Yes.

15 MR. GINIS: -- we'll look at halfway down the page,
16 the description of the unconstrained achievable potential.
17 It says in that bullet "with unconstrained achievable
18 potential", bolded:

19 "Natural gas savings achieved through efficiency
20 improvements resulting from the most aggressive
21 DSM programs, assuming no budget constraints or
22 policy restrictions over the study period."

23 So I think to your question, you were comparing the
24 MACC to the CPS in terms of adoption rates and
25 aggressiveness, and this is identifying the level of
26 aggressiveness used in the unconstrained scenario
27 specifically.

28 MR. POCH: Okay. Let's make sure our understanding is

1 the same. My understanding is that for each of these
2 scenarios, unconstrained, constrained, and semi-
3 constrained, ICF then did two scenarios for each measure,
4 and they did a business as usual and they did a more
5 aggressive case. They then ranked what they got with the
6 more aggressive case of incentives and went down from the
7 top and selected all those that they could pay for within
8 the budget that the Board had allocated to you in the DSM
9 Framework. And that's in the constrained -- all in the
10 constrained scenario; is that your understanding? And that
11 gets you a different level of achievement than the mix of
12 those measures and incentive levels that you are pursuing.

13 MR. GINIS: I don't fully understand how you've
14 characterized that, but I think we can agree that a CPS and
15 the MACC used different aggressiveness levels for adoption
16 rates.

17 MR. POCH: Even in the constrained scenario?

18 MR. GINIS: I would have to look at that. It's
19 possible. I think the point that I'd like to make here is
20 that the CPS is not identified as a tool for this
21 framework. If you look at page i of the executive summary,
22 the first page, it's quite clear that this was developed
23 for the DSM Framework, and therefore whatever decisions
24 were made about the mix of aggressiveness or business as
25 usual, as you were referring to, was done with the
26 understanding that this was for a DSM Framework.

27 MR. POCH: Okay.

28 MR. GINIS: The MACC was done specifically for the

1 cap-and-trade framework, and I can't speak to exactly why
2 or how Board Staff, the consultant, and the working group
3 came to those conclusions, but I think it's important to
4 note that the MACC is the product for the cap-and-trade
5 framework.

6 MR. POCH: Well, I think the studies will speak for
7 themselves. My understanding is that in the constrained
8 scenario, same budget as in your DSM, that the CPS finds a
9 lot more than the MACC does, and that would have been
10 apparent to you. I think you've acknowledged that.

11 Are you telling me then that you did not then delve
12 into why that was possible; you just simply accepted the
13 MACC and didn't look behind to understand that difference
14 and see if there's more that could be had?

15 MR. GINIS: So I think we've already established that
16 the MACC is the tool. It's listed in the cap-and-trade
17 framework as the tool to be used, the CPS is not --.

18 MR. POCH: Just to correct the record, I think it is
19 "a tool", but go ahead.

20 MR. GINIS: I'm sorry?

21 MR. POCH: Well, I just noticed the letter you filed,
22 it refers to it as being "a means", not "the means", but,
23 okay, we can leave that for another day. But you took it
24 is a the tool, I take it, and that's my question. You
25 didn't bother to look at what generated this difference
26 between the MACC and the CPS and delve into that, because
27 you took the MACC as your marching orders?

28 MR. GINIS: Well, I think that's quite clear. Aside

1 from the note on page 20 of the cap-and-trade framework --
2 we don't necessarily need to pull this up, but it is clear
3 that the OEB says it will rely on the MACC as its principal
4 tool for assessing the utilities compliance plans.

5 So in order for to us to comply with the framework, it
6 was important for us to take direction from the MACC
7 specifically.

8 I think your question is why didn't we also look at
9 the CPS, or the differences between the CPS, and we did.
10 That's why we also did an additional CPS analysis. But we
11 understood that the CPS analysis was developed for the DSM
12 Framework, that it includes more aggressive approaches that
13 might not be appropriate for a compliance plan. And we
14 simply wanted to see whether the cost of those more
15 aggressive approaches would be cheaper than the cost of
16 purchasing a compliance instrument.

17 MR. POCH: Okay, let's move on. I just want to ask
18 you about your forecasts, basically you're emissions
19 forecasts. You've mentioned the various federal and
20 provincial energy efficiency programs.

21 Is there somewhere where you've set out the specific
22 data about spending measures, participants, targets, net to
23 gross, cumulative gas savings and then integrated that into
24 your forecast of what you need to achieve for compliance?

25 [Witness panel confers]

26 MS. FLAMAN: Could you rephrase the question?

27 MR. POCH: Well, you've noted these various programs,
28 some of which are and will be significant.

1 Have you somewhere laid out your analysis of how
2 you've calculated the cumulative gas savings they'll result
3 in? Because I presume you've had to rely on that to set
4 your forecast of what your emissions will be, and therefore
5 what your compliance plan has to achieve.

6 [Witness panel confers]

7 MS. NEWBURY: I just want to make sure I understand
8 your question correctly. Could you repeat it for me,
9 please?

10 MR. POCH: Yes. Is there somewhere in the evidence or
11 can you provide for us the various assumptions you used
12 about the impact of federal and provincial energy
13 efficiency programs to adjust your emissions forecast that
14 you have to wrestle with in your compliance plan?

15 MS. NEWBURY: So the emissions forecast is built from
16 our corporate volume forecast, which is explained in
17 Exhibit 2, and it does take into account DSM savings. Is
18 that your question?

19 MR. POCH: The DSM savings would be your DSM program,
20 but you've cited these very -- what you're characterizing
21 is very large government programs outside your DSM. And
22 I'm wondering where that's broken out, what you've assumed
23 for how they'll reduce your customer use and therefore your
24 emissions.

25 MS. NEWBURY: My understanding of our forecast process
26 is there is a lot of variables at play when it comes to
27 what is driving changes in consumption. So it's very
28 difficult to attribute specific changes in the forecast to

1 specific factors.

2 So things that we are aware of and we know, we can
3 specifically account for. But where we don't have specific
4 data to support it, it's captured, but it is very difficult
5 to break it down into individual variances.

6 MR. POCH: These are all pretty new programs. You
7 don't have trend lines for them. I'm just wondering, you
8 must have had some methodology, some assumptions that went
9 into your forecast. Is that available, or have you...

10 MS. NEWBURY: So again, you are talking the overall
11 consumption forecast for our different customer groups?

12 MR. POCH: You had to rely -- my understanding is you
13 had to rely on your overall consumption forecasts for your
14 various groups to determine what your compliance plan has
15 to achieve, correct?

16 MS. NEWBURY: Yes.

17 MR. POCH: So in making that forecast of customer gas
18 use for the purposes of this proceeding, you would have had
19 to make some assumption that somehow captures, in your
20 words, the impact of these various government programs
21 which are getting pretty sizeable.

22 And I'm asking for -- if you can provide us with
23 whatever you assumed for the impact of those programs.

24 MS. NEWBURY: We don't have a witness on this panel
25 that is responsible for preparing those.

26 MR. POCH: Let's get an undertaking then, if we could.

27 MS. DJURDJEVIC: So JT1.14.

28 **UNDERTAKING NO. JT1.14: TO PROVIDE THE ASSUMPTIONS**

1 **USED IN ESTIMATING THE IMPACT OF GOVERNMENT PROGRAMS**
2 **ON THE FORECAST OF CUSTOMER GAS USE**

3 MR. POCH: So JT1.14.

4 MS. DJURDEVIC: Can you restate the question?

5 MR. POCH: The impact of government -- various
6 government energy efficiency programs included in your
7 customer use forecast that underlies this application.

8 We'd like to know what those forecasts are and on
9 what -- how they were developed, what were they based on.

10 MS. NEWBURY: I'm not sure exactly what we can
11 provide, but we will provide what we can.

12 MR. POCH: Sure. Just in that regard, there is really
13 no difference between in-house DSM, government energy
14 efficiency programs or hybrids where the government has --
15 is assisting you in enhancing your DSM, in any scenario you
16 have to take that into account, correct?

17 MS. NEWBURY: If you are still talking about the
18 volume forecast, we don't have a witness here that can ...

19 MR. POCH: Okay, let's leave that. Turning to RNG for
20 a moment, the genesis of the RNG proposal, was there a --
21 did this emanate from the utilities approaching government
22 with the proposal? I know we have that set of slides that
23 both utilities have filed. Was that the -- when did this
24 proposal arise and who was the author, the initial author?

25 Obviously, it's gone through some discussion with
26 government since.

27 [Witness panel confers]

28 MR. POCH: I wasn't looking for the date of those

1 slides. I was asking for the date when --

2 MS. NEWBURY: There was a sequence of events laid out
3 in Energy Probe 2 --

4 MR. POCH: Okay.

5 MS. NEWBURY: -- where the question was asked of us to
6 provide a summary or list of meetings that were had, and
7 we've attached a series of presentations and materials
8 associated with that. And within those documents the RNG
9 gap funding proposal was included in attachment 8, which
10 again, if we go back to the list of meetings, is an
11 Enbridge Gas-Union Gas meeting with the Ministry of the
12 Environment and the Ministry of Energy on July 26th of
13 2017.

14 MR. POCH: Okay. In various answers to our two
15 interrogatories, we've heard that utilities have been in
16 discussions with the government, principally the Ontario
17 government, I take it, about energy efficiency program
18 opportunities that address climate change.

19 But I don't think anywhere, unless I wasn't familiar
20 with this response, is there somewhere where we have an
21 actual list of meetings and actual -- of the proposals you
22 made, as opposed to the ones that are in your -- your
23 abatement construct? I think you list just a few there,
24 but is there a -- have you made actual proposals of
25 programs to the government, not necessarily ones they are
26 going with, but just conservation programs I'm referring
27 to.

28 MS. FLAMAN: So we have had conversations with

1 government, both the MOE CC and with the GreenON chair, and
2 I believe he's the CEO now, to discuss program options and
3 what programs we can offer. Our goal is to ensure no
4 duplication of the GreenON programming and the CCAP funding
5 that is out there, as well as to really promote
6 collaboration on how to deliver energy efficiency and
7 energy conservation to optimize the use of those funds, so
8 we have responded to the three GreenON RFPs that were put
9 out into the market. They addressed an energy report, low-
10 income, and the first one was, of course, the smart
11 thermostat install program.

12 MR. POCH: So those were ones where you responded to
13 the government, saying, We want to go with a smart
14 thermostat. What can you do for us? And you've responded
15 to the RFP in that situation and the two others you
16 mentioned.

17 No, I was asking: Have you made proposals to the
18 government of ways -- of other programs or enhancements to
19 your DSM programs that you are trying to interest them in,
20 whether you've been successful or not?

21 MS. FLAMAN: So I can confirm, yes we have focused on
22 low-income, Indigenous. That was the last meeting we had.
23 And before that we have certainly been in talking to the
24 MOE CC and, as I said, GreenON themselves, to note -- let me
25 back up and note that GreenON stood up, if you will, August
26 2017. That's when the first program -- the first
27 programming started to come into the market.

28 So we have been before that actively promoting our

1 ideas, making sure that we educate both the MOE CC and
2 GreenON on what we do offer in DSM, and then where we could
3 absolutely collaborate with them, perhaps with the LDCs.
4 I'm happy to share that information.

5 MR. POCH: Sure, if we could get the proposals you've
6 -- suggested ideas you've made to them and any analysis
7 you've provided them, that would be great. I'll take an
8 undertaking.

9 MS. DJURDJEVIC: That will be JT1.15.

10 **UNDERTAKING NO. JT1.15: TO PROVIDE THE SUGGESTED**
11 **IDEAS AND ANALYSIS GIVEN TO THE MOE CC AND GREENON.**

12 MR. POCH: And were any of those proposals proposals
13 which involved the government leveraging your existing DSM
14 portfolio in some fashion, allowing you to take it further,
15 deeper, faster, what-have-you?

16 MS. FLAMAN: I would need to make sure, to give you a
17 fulsome answer, to make sure I had the opportunity to
18 review the material.

19 MR. POCH: Okay, thank you.

20 In Exhibit B, GEC 26 we asked you for some DSM
21 results, and you indicated that they hadn't been finalized.
22 I don't even think you have to turn it up.

23 I'm wondering if this -- if you aren't providing us
24 already an answer to one of Mr. Elson's undertakings, could
25 we get -- it won't be -- I appreciate they won't be
26 finalized numbers, these may be projections or interim
27 values that haven't yet been fully evaluated, but whatever
28 you have for your best estimates for actual or expected

1 incremental annual and lifetime savings associated with
2 your programs, broken down by capped versus uncapped
3 customers and separated for each of 2015, '16, and '17?
4 And if we could get that at the measure level, I think that
5 would be the most valuable to the Board.

6 MR. GINIS: So you are referring to GEC 26?

7 MR. POCH: Well, that's where we asked you for some of
8 this, and you said -- we don't have actuals yet that are
9 verified. I understand that, so I'm backing up and saying,
10 okay, well, let's just look for estimates, however --
11 whatever level they're at. Some of them may just be your
12 raw plan, some of them may be adjusted, given your
13 experience, whatever you have, for those three years at the
14 measure level, broken down by your capped versus uncapped
15 customers, which obviously is important for this
16 proceeding.

17 MR. GINIS: So we still don't have that. As I
18 understand, you are asking for potentially draft. I don't
19 think it would be appropriate to provide that. I know
20 through the DSM Framework and through the audit committees
21 that that comes to fruition, and once it's appropriate and
22 we're certain that the data is accurate we would provide it
23 at that time.

24 MR. POCH: Can we at least get numbers of participants
25 for each measure? That, I assume, is not controversial.

26 MR. GINIS: I don't think it is a matter of it being
27 controversial. It is just a matter of providing
28 information on the record that we feel is accurate to be

1 used.

2 MR. POCH: Well, I'm happy for you to put caveats on
3 it, explain that it's preliminary, what-have-you. That's
4 no problem for us. We appreciate that, absolutely. We're
5 -- we have often been participants in those committees, and
6 we expect things to change on those committees, don't get
7 me wrong, but, yes, with whatever caveats are appropriate,
8 we...

9 MS. DJURDJEVIC: Do we have that undertaking?

10 MS. SEERS: We are not prepared to provide any
11 forecasts or any information that's not been finalized.
12 Once finalized, that information will be available.

13 MR. POCH: If we narrow it to participants, isn't that
14 just an actual number? There is no real forecast here at
15 this point. Certainly that number exists and isn't
16 controversial.

17 MR. GINIS: I think if we start going down the path of
18 sharing pieces of information, our concerns are still
19 relevant. And I would also want to understand how that is
20 relevant to this framework specifically because that would
21 be our results from our DSM program which, like I said, has
22 a process in place. It is a robust framework that reviews
23 this type of information before it is finalized, so it is
24 not clear to me why we would need to provide that before
25 it's ready through this process.

26 MR. POCH: We are not trying to get a jump on the DSM
27 clearance process. We're trying to -- we are seeking it
28 for the purposes of this proceeding and the Board has

1 already ruled that the scope of Mr. Neme's evidence, which
2 we had to provide in advance, was relevant to this
3 proceeding and that included a look at what the potential
4 is that is cost-effective and untapped, and this would help
5 us better argue that point before the Board. So that's why
6 we're asking.

7 MS. SEERS: It's a refusal.

8 MR. POCH: Okay. And I take it that your forward-
9 looking forecasts of the same items, 2018, 2019 and 2020,
10 is a refusal as well?

11 MS. SEERS: Yes.

12 MR. POCH: Okay. Could we go back to ED 24? You were
13 looking at a table there with Mr. Elson, where he asked you
14 to add some lines -- and I apologize, I don't know which
15 undertaking that was.

16 But I just want if, in answering those undertakings,
17 you could separate your capped versus non-capped customers,
18 because again obviously for this proceeding, we are just
19 worried about the one.

20 I am just looking at page 136 of the exhibit, and
21 there is a value of lifetime GHG emissions reductions from
22 2018 DSM programs. Basically, if we could get that broken
23 out, capped versus uncapped.

24 MR. GINIS: I don't know how much detail I can provide
25 that separation, but I can provide an assumption.

26 MR. POCH: Well, on your best efforts. You can
27 explain when you provide it what, if any, approximations
28 you've had to make.

1 MS. DJURDJEVIC: That is JT1.16.

2 **UNDERTAKING NO. JT1.16: TO MAKE BEST EFFORTS TO BREAK**
3 **OUT LIFETIME GHG EMISSIONS REDUCTIONS FROM 2018 DSM**
4 **PROGRAMS, CAPPED VERSUS UNCAPPED.**

5 MR. POCH: You've set out in Staff 4, you've noted the
6 government commitment to -- again, I don't think you have
7 to turn it up -- to \$100 million -- you've set aside
8 \$100 million that they propose to spend on RNG.

9 I'm just trying to understand what distinction, if
10 any, you are drawing between the government's commitment to
11 RNG funding and their commitment to energy efficiency
12 funding.

13 You've gone ahead with the proposal in this case to
14 pursue RNG that requires the government's assistance for it
15 to pass muster here. And you are going ahead with --
16 you've got your DSM portfolio already in place and you are
17 going ahead and wearing your non-utility hat, in effect, in
18 your unregulated activities, you are going ahead and
19 delivering some government efficiency programs which are
20 distinct from your DSM plan, although we understand there
21 might be some overlap of measures.

22 It seems to me what you haven't proposed is the
23 hybrid, where you've -- as you have for RNG, where you've
24 taken some government money and applied it to incremental
25 DSM to address cost-effectiveness or rate impact, what have
26 you.

27 I'm wondering if there is some reason why you did it
28 for RNG and not for energy efficiency for DSM?

1 [Witness panel confers]

2 MR. GINIS: So you are asking why we haven't used
3 government funding in the manner in which we use it for
4 RNG, but for energy conservation programs?

5 MR. POCH: Yes.

6 MR. GINIS: Well, I think that we have. I think the
7 Green Investment Fund is an example of that.

8 I think they are different. I think we've talked a
9 little bit this morning about the differences between RNG
10 and energy conservation programs.

11 The way that that would look if we were to use
12 government funding for this purpose, for energy
13 conservation, is exactly what we did under GIFF where we
14 used government funding to enhance a program, to
15 potentially offer higher incentives, or to expand the
16 breadth of the program.

17 MR. POCH: Is there any -- I take it that was the
18 government's initiative and you've happily, or however
19 happily jumped on that bandwagon.

20 I guess in answer to my earlier request, we'll hear if
21 you've proposed any other programs where the government
22 could amplify your DSM, is that right?

23 I'll leave it -- I can leave it to that other
24 undertaking. I think we've covered that. That's fine.

25 In response to Staff 7, you indicate -- this is about
26 the RNG, you indicate -- I can read it:

27 "Without a timely OEB decision, Union faces the
28 risk of use the opportunity to secure provincial

1 funding that will reduce the net cost of RNG, and
2 this would compromise Union's ability to support
3 government policy."

4 I'm wondering if you can just explain what you meant
5 by "Lose the opportunity" as opposed to delay the
6 opportunity.

7 MS. NEWBURY: My understanding is that the manner in
8 which the government wanted to deliver the funding or the
9 timing, it was time-sensitive. So for us to be able to
10 take advantage of that opportunity, we had to act in a
11 timely manner.

12 MR. POCH: In Exhibit B, Staff 17, you say -- well,
13 actually, Board Staff says they quote you as saying --
14 well, they say:

15 "Union Gas states that Union Gas and Enbridge Gas
16 have developed an abatement construct, including
17 an initiative funnel, to support development of
18 new technologies over the long term, including" -
19 - and they're quoting you here, "Abatement
20 initiatives that may not be cost-effective and
21 that will require alternative funding models to
22 proceed."

23 Can you be specific about what you meant by not cost-
24 effective? Under what test?

25 MR. TROFIM-BREUER: So it is not necessarily related
26 to a specific test per se. It is more likely based -- not
27 more likely, but it's more based on the actual lifespan of
28 the technology as it evolves from initial stages, it has

1 been developed and becomes market-ready depending on the
2 type of technologies we are looking at.

3 At the beginning, it is inherently normal that will
4 that technologies are more expensive.

5 MR. POCH: So you are basically saying for some of
6 these technologies they aren't yet mature in the market,
7 and so obviously they are not mature in the market.

8 MR. TROFIM-BREUER: Absolutely.

9 MR. POCH: And so you see that as a particular area
10 for government support. Okay.

11 Now, you've said in numerous places that you've -- and
12 you've said today in numerous places that enhancement of
13 the DSM measures and programs is something you want dealt
14 with in the context of the DSM Framework. And there has
15 been some suggestions you discussed earlier about how that
16 framework may need to change.

17 I take it you haven't proposed actual such
18 enhancements, increased targets, what-have-you, for the
19 midterm review. So am I correct then that those various
20 comments you've made, you're in all cases suggesting that
21 this is going to have to wait until we are looking at a new
22 DSM Framework in 20 -- I guess it's 2020 -- 2021, I guess,
23 for implementation; is that correct?

24 MR. GINIS: We did request additional funding for two
25 programs through midterm review. I think what we are
26 saying in GEC 22, however, is that the more fundamental
27 issues that need to be addressed with the DSM Framework
28 should be addressed appropriately, which would be the

1 development of the next framework once this framework which
2 has been established for this term has concluded.

3 MR. POCH: So if there are opportunities to use your
4 DSM infrastructure to capture some cost-effective abatement
5 for purposes of compliance with cap-and-trade, apart from
6 these two suggestions, you are saying examining that and
7 deciding how the Board is going to approach that and you
8 are going to approach that, all that should await the 2021.

9 MS. FLAMAN: Actually, that's not what we're saying.
10 We'd like to clarify. What we are saying -- and I think it
11 is good to recall that we have looked at incremental
12 abatement, energy-conservation-specific, and found there to
13 be no prudent measures, so I'd like to clarify that to
14 start.

15 We then also looked at, as we were required to do for
16 our DSM midterm, we did a thorough review and have made our
17 submission for our DSM midterm review. We today are
18 looking at the 2018 cap-and-trade compliance plan.

19 So I think it is worth noting that measures proposed
20 within our DSM midterm should be considered in our DSM
21 midterm.

22 MR. POCH: You're in fact in your DSM midterm
23 proposing to either lower the target or increase the budget
24 with the same target. There may be some distinction
25 between what Enbridge is proposing and yours, but basically
26 to deal with the ratcheting up of the target. You want
27 more program budget. We don't have to get into a debate
28 about whether that is merited or not, but I take it you

1 haven't filed in that application an analysis of how we
2 might change the target for various measures, how we might
3 alter the program approach for various measures to address
4 cap-and-trade compliance.

5 MS. FLAMAN: When we filed the DSM midterm, we
6 followed the requirements that were set for the DSM midterm
7 review and answered the questions we were asked,
8 considering in the analysis that you are talking about
9 looking at incremental abatement to support the cap-and-
10 trade program was not part of the DSM midterm review.

11 MR. POCH: That's fine. And what you are saying is if
12 that's to happen it will have to then -- therefore it will
13 have to happen, as far as you are concerned, when we do the
14 framework review, not the midterm, in -- on or about 2020
15 for implementation in 2021.

16 MS. FLAMAN: What we are saying is, looking at
17 changing the framework requires a separate look at the DSM
18 frame -- sorry, it requires a separate look at the DSM
19 Framework. We also need to acknowledge that we have in
20 place a framework, a DSM Framework, that extends to 2020.

21 MR. POCH: And you are not proposing to do that look
22 at changing that framework to take into account this new
23 reality of cap-and-trade at the midterm review; you are
24 suggesting that can wait. You are taking your marching
25 orders from -- what you see as your marching orders from
26 the Board, but that's the interpretation you've taken.

27 MS. FLAMAN: We are driving to compliance with both
28 the DSM Framework and the cap-and-trade framework.

1 MR. POCH: Okay. Thank you, those are my questions.

2 MS. DJURDJEVIC: Okay. Might this be a good time to
3 break for lunch? By nodding heads, I see consensus. Can
4 we make it 45 minutes so that we can plough onwards? Okay.
5 Let's come back at 12:45. Thank you, everyone. Yes. You
6 know what I meant.

7 --- Luncheon recess taken at 1:00 p.m.

8 --- On resuming at 1:51 a.m.

9 MS. DJURDJEVIC: Welcome back, everyone. We will now
10 continue with the list of questioners, and we now have
11 School Energy Coalition. So, Mr. Rubenstein, if you are
12 ready to ?

13 **QUESTIONS BY MR. RUBENSTEIN:**

14 MR. RUBENSTEIN: Thank you very much. I don't have
15 that many questions.

16 If I can ask you to turn up -- well, first, before you
17 turn something up, in SEC 10, we asked you in part B for
18 each of the initiatives -- and this was looking at stage 2
19 of the abatement construct. We had asked you, for each
20 listed initiative, to please provide a copy of any
21 memorandum, concept, outline and/or other internal document
22 describing in full the potential initiatives costs,
23 benefits and work that should be undertaken before it could
24 be considered in stage 3, and you pointed us to Staff 21B.

25 In Staff 21B, this is part of a larger interrogatory
26 response where you provide the breakdown of costs and some
27 detail for each of the activities.

28 But that is not responsive to the question I had

1 originally posed.

2 We had asked if there were any memorandums, concept
3 outlines, other internal documents, work plans with respect
4 to each of the stage 2 activities that that you planned to
5 take in 2018.

6 MR. TROFIM-BREUER: There are no -- we've got a number
7 of internal documents at different stages of evolution,
8 depending on which initiative we're talking about.

9 Those plans are -- our current plan is to ensure that
10 those plans are made available as we get to stage 3 and
11 there is a -- at that moment we made those plans available.

12 MR. RUBENSTEIN: Well, I'd like to have those
13 documents now, because you're seeking funding to do certain
14 work in 2018 with respect to these programs and these
15 initiatives. Obviously, we think it's obviously relevant
16 for the Board to understand, well, what's the overall plan
17 for this money, what type of analysis have you undertaken
18 already that this should have made itself down the funnel
19 to stage 2.

20 So I asked if you could provide the documents as
21 requested in the interrogatory response -- in the
22 interrogatory as posed.

23 MR. TROFIM-BREUER: So if I may direct you to Exhibit
24 B, Staff 17? In that exhibit, we are actually talking
25 about the fact that the initiatives that have been
26 identified in the funnel are not necessarily selected for
27 proposal.

28 They are rather a current list of new technologies

1 that are currently being evaluated for feasibility and
2 further analysis.

3 This is not what we're looking for. It is more the
4 cost consequences of the plan, not necessarily the
5 evaluation of each individual initiative.

6 MR. RUBENSTEIN: Well, you are seeking to spend
7 \$535,000 on micro-generation; that's one of the
8 initiatives. And I'm trying to understand really what are
9 you spending the money on, what's the -- what work plan do
10 you have in place to -- with respect to that program, so we
11 can understand that when you get to stage 2, these are --
12 you know, you're making a prudent expenditure and there is
13 a work -- there is something underneath this than just an
14 amount of money you are seeking from the Board.

15 [Witness panel confers]

16 MR. TROFIM-BREUER: As we have indicated, we haven't
17 completed the analysis yet. What we are able to do so far
18 with a modest existing budget is really to look into, you
19 know, what the construct might look like from a customer
20 abatement perspective, what are some of the potential
21 initial initiatives could look like directed to customer
22 segments.

23 We've looked at a number of things, small things, how
24 that would help us to advance. But in order to be able to
25 provide that analysis that you are talking about with more
26 detailed information, we actually -- that's kind of the
27 foundation of why we're asking for the funding of
28 \$2 million.

1 MR. RUBENSTEIN: No, I understand that. You are
2 seeking the money to do the further work. So more micro-
3 generation specifically, it says you are planning to do
4 nine pilot projects.

5 And I'm trying to understand what you've done so far,
6 what the work plan looks like.

7 I assume internally, Union Gas has a plan. It has
8 obviously selected nine sites and it has some idea
9 internally of -- it's done some initial research of why
10 this is something that you should look into. It has
11 obviously moved down the funnel to stage 2, and I'd like to
12 see that information as was requested.

13 So can you please provide it?

14 MR. TROFIM-BREUER: As indicated, the information that
15 we have at this point is really very early stages.

16 MR. RUBENSTEIN: I understand.

17 MR. TROFIM-BREUER: And what we could provide has
18 already been provided actually as part of the evidence. We
19 are talking about which projects we're looking at. We're
20 looking at where -- the evidence, as it stands today,
21 provides the insight that we need. We're not looking for
22 approval of those initial individual projects.

23 As I mentioned, it is more about the cost consequences
24 of have we looked at the abatement construct from a
25 technology innovation perspective. Is it properly laid
26 out; do we have a selection approach to it.

27 Those are the elements that we've been looking at and
28 with that in mind, it would be too early to provide

1 detailed plans to the level that you are looking for.

2 MR. RUBENSTEIN: Does Union Gas currently, besides the
3 two sentences and the budget number that are located in
4 Staff 21 with respect to micro-generation, have a work
5 plan, have done any research, have done any internal
6 memorandum that summarizes the research and that came up
7 with the \$535,000 budget? Does that exist?

8 MR. TROFIM-BREUER: That does exist. It is not
9 consolidated specifically for every initiative because all
10 of them are at different stages of development. So in some
11 cases, you just know directionally what that might look
12 like.

13 MR. RUBENSTEIN: Okay. Can you please provide that
14 information and those documents?

15 MR. TROFIM-BREUER: Yes.

16 MS. DJURDJEVIC: That will be undertaking JT1.17.

17 **UNDERTAKING NO. JT1.17: TO PROVIDE THE MATERIAL**
18 **SHOWING HOW UNION CAME UP WITH THE \$535,000 BUDGET**
19 **WITH RESPECT TO MICRO-GENERATION**

20 MR. RUBENSTEIN: And can you provide those similar
21 types of documents for all other stage 2 activities? We
22 can keep that as one interrogatory.

23 Can I ask you to turn to APPrO 10, page 2? You were
24 asked in this interrogatory about disposition methodology,
25 and on page 2, Union makes this comment:

26 "Union is not able to administer one-time
27 adjustments for general service customers because
28 of the of limitations in the system used to bill

1 this group of customers."

2 I was wondering if you could expand on what the
3 limitations are within the system that wouldn't allow you
4 to do that.

5 MR. PANTSER: We can't elaborate beyond the material
6 that's included in the IR. There's nobody from rates on
7 this panel.

8 MR. RUBENSTEIN: Can I ask you to undertake to provide
9 a more fulsome explanation?

10 MS. SEERS: Mr. Rubenstein, can you clarify exactly
11 what the question is?

12 MR. RUBENSTEIN: I'd like to understand what exactly
13 -- when you say there is a system limitation, that the
14 billing system doesn't allow you to, can you explain? Is
15 it that physically there is no way to do it, or it's hard
16 to do it. I am just asking for a little more insight on
17 what you meant by that.

18 MS. SEERS: So an explanation as to what the system
19 limitation is that is being referred to in APPRO 10?

20 MR. RUBENSTEIN: Yes.

21 MS. DJURDJEVIC: That will be JT1.18.

22 **UNDERTAKING NO. JT1.18: TO EXPLAIN THE SYSTEM**
23 **LIMITATION DESCRIBED IN APPRO 10**

24 MR. RUBENSTEIN: Could I ask you to turn now to SEC
25 number 8? So in SEC 8 we had asked you to provide any
26 internal memorandum guide or other document that sets out
27 in detail the abatement construct. And your response is
28 essentially, you know, pointing me to the evidence in this

1 proceeding.

2 Am I correct that there is some sort of internal
3 memorandum guide or document that specifically sets out
4 internally how the abatement construct works? I mean, I
5 assume since you worked with Enbridge you had to come to
6 some sort of agreed-upon construct?

7 MS. FLAMAN: So as you noted, we did work with
8 Enbridge to develop the abatement construct. We've used it
9 to guide development of incremental abatement initiatives
10 by Union Gas, and we have provided the abatement construct
11 in our evidence, so what is here is what --

12 MR. RUBENSTEIN: So --

13 MS. FLAMAN: -- and I think one of the important
14 points is that it is about transparency, and so we have
15 been very transparent in providing the guidelines, as well
16 as the process we'll undertake to evaluate the new
17 technologies.

18 MR. RUBENSTEIN: Besides the evidence, is there an
19 internal presentation, a guide, a document, that sets out
20 -- obviously when you were developing the evidence you were
21 referencing something, I would have assumed, and Enbridge
22 was doing the same thing from potentially the same
23 document. Does that exist?

24 MS. FLAMAN: No, the evidence reflects the abatement
25 construct that we have. I'm not sure what else you are
26 looking for, so maybe -- I know you've said it's their
27 internal memos or something to that effect, and what I'm
28 telling you is the evidence reflects the abatement

1 construct that we have.

2 MR. RUBENSTEIN: So outside of the evidence of what's
3 in the evidence there is no other document, a Union
4 document, that discusses or sets out the abatement
5 construct.

6 MS. FLAMAN: Not that I'm familiar with, no.

7 MR. RUBENSTEIN: So when you are utilizing the
8 abatement construct internally to work through which
9 projects, you are staring at the evidence from this case?

10 MS. FLAMAN: As we use it, what we will do is apply
11 the guiding principles that are laid out in the abatement
12 construct.

13 MR. RUBENSTEIN: But those are not anywhere else
14 except in your copy of the evidence. There is no
15 presentation or documents that you -- when you develop the
16 evidence you were drawing from.

17 MS. FLAMAN: Not that I'm familiar with. We can
18 check.

19 MR. RUBENSTEIN: All right. Can you please do that?
20 Thank you.

21 MR. QUINN: Mr. Rubenstein, may I add just in terms of
22 your request, to the extent that they don't have anything
23 beyond their evidence, as they're stating, is to ask for
24 the meeting minutes for those combined meetings and any
25 presentations that were used to facilitate the meeting?

26 MS. FLAMAN: We'll have to take that away and see.

27 MR. QUINN: You will include that in the undertaking
28 then?

1 MS. FLAMAN: If it exists.

2 MR. QUINN: Okay. Thank you very much. Thank you,
3 Mr. Rubenstein.

4 MS. DJURDJEVIC: JT1.19.

5 **UNDERTAKING NO. JT1.19: TO PROVIDE THE INTERNAL**
6 **DOCUMENT SETTING OUT THE ABATEMENT CONSTRUCT, IF IT**
7 **EXISTS .**

8 MS. SEERS: Could I just ask that the undertaking be
9 restated just for clarity?

10 MS. DJURDJEVIC: Okay.

11 MR. RUBENSTEIN: Maybe it is best if we have two
12 separate undertakings, because I don't want to -- I don't
13 want -- there are two things that have been asked. One was
14 what I would call the sort of internal document setting out
15 the abatement construct, and then the second undertaking
16 is, if that doesn't exist, or if it does exist -- I'm not
17 sure that it is really important either way -- the meeting
18 minutes or notes or presentation that exist between you and
19 Enbridge or you internally in the development of it.

20 MS. SEERS: Okay. So the first undertaking is the
21 internal document setting out the abatement construct if it
22 exists, so that will be JT1.19? And the second one will be
23 final meeting minutes reflecting the --

24 MR. QUINN: I'm sorry, the word "final" was added.
25 I'm asking for the meeting minutes from meetings that were
26 between Union and Enbridge in collaboration working on the
27 abatement construct and any presentations that were used to
28 facilitate the meeting.

1 MS. SEERS: So presentations that were used to
2 facilitate the meeting. We're not going to produce various
3 -- I don't even know if this stuff exists, but we would
4 produce whatever -- if it does exist we would produce
5 whatever the final meeting minutes were if there were final
6 meeting minutes.

7 MR. QUINN: Excuse me, if you are denoting final as
8 different from draft, I understand that, but not just one
9 set of minutes. If there were four meetings we would like
10 four sets of minutes.

11 MS. SEERS: Understood.

12 MR. QUINN: Thank you.

13 MS. DJURDJEVIC: And that's JT1.20.

14 **UNDERTAKING NO. JT1.20: TO PRODUCE FINAL MEETING**
15 **MINUTES OF MEETINGS BETWEEN UNION AND ENBRIDGE TO**
16 **DEVELOP AN ABATEMENT CONSTRUCT, INCLUDING ANY**
17 **PRESENTATIONS USED TO FACILITATE THE MEETING OR**
18 **MEETINGS.**

19 MR. RUBENSTEIN: And my last question, if I could take
20 you to SEC 15, so this was the interrogatory we asked you
21 to work with Enbridge to provide sort of a cost comparison
22 of the administrative costs. And as you go through some of
23 the explanation, one of the things that comes up to me, at
24 least, is what's -- since these are incremental costs that
25 you are seeking, it is not clear what's actually the total
26 cost for administrative purposes both utilities are using,
27 so I was wondering if you could provide an undertaking that
28 does the following: For 2016, 2017, and 2018 provide the

1 total administrative cost for the cap-and-trade program.
2 So that could be not just incremental costs, but if there
3 are costs that you are not seeking incrementally that may
4 be built into rates already, and then the second would be
5 the same thing for FTEs, so if there are non-incremental
6 FTEs, so you have provided FTEs in Table 1 of that
7 response, but if there are non-incremental FTEs as well, so
8 we can be sure we get an apples-to-apples picture between
9 the utilities.

10 MR. DANTZER: Any costs that are not incremental
11 wouldn't be tracked, and we couldn't report on that basis,
12 so under cap-and-trade and the cap-and-trade admin deferral
13 account, that is going to track and include only
14 incremental costs.

15 MR. RUBENSTEIN: No, I understand you couldn't do it
16 at a -- at the exact level, but are you able to ballpark?
17 So I understand if there are non-incremental FTEs that you
18 -- are you able to ballpark what those would be? Sort of
19 either put a cost to it on the dollars and then --

20 MR. DANTZER: No, we're not. I mean, it's in our
21 evidence somewhere, but -- it's in Exhibit 3, tab 5, but
22 that's really -- there is support required by functional
23 areas across the company, so to, you know, come up with a
24 number on that, that's not something that we currently
25 track.

26 MR. RUBENSTEIN: And would the same thing be the case
27 for 2018 forecast FTEs?

28 MR. DANTZER: So the -- you're talking about the FTEs

1 that support cap-and-trade that aren't part of the deferral
2 account for 2018? Same answer, yeah.

3 MR. RUBENSTEIN: All right. Thank you very much. No
4 questions.

5 MS. DJURDJEVIC: So are you finished, Mr. Rubenstein?

6 MR. RUBENSTEIN: Yes.

7 MS. DJURDJEVIC: Okay. So then we will turn to the
8 phones. Hopefully Mr. Aiken is standing by for his
9 questions on behalf of LPMA?

10 **QUESTIONS BY MR. AIKEN:**

11 MR. AIKEN: I am. Thank you. Good afternoon to
12 everybody. My questions are going to focus on the response
13 of B.Staff.6. And in that you will see Figure 3 that is
14 provided in the question from Union's evidence. This is
15 the three-line forecast of how the example of a \$16 per gJ
16 cost is made up, forecast cost of gas, the forecast cost of
17 carbon, and the provincial funding.

18 And I just want to walk through these lines, and it
19 was touched on a little bit this morning. On the second
20 page you will see the three bullet points in the response.
21 And the first bullet point I'm starting with is -- deals
22 with the gas cost. And the second sentence says:

23 "This forecast cost is intended to reflect what
24 ratepayers would have otherwise paid for
25 conventional natural gas."

26 So my first question is: Is the forecasted price used
27 in the PGVA reference price calculation for the ten-year
28 term, or whatever the term of the RNG contract? In other

1 words, this forecast is used on an actual basis for the
2 calculation of the PGC VA -- or the PGVA, sorry.

3 MS. NEWBURY: The source of the forecast that we are
4 using is still under discussion between Enbridge and Union.
5 But the PGVA forecast is one of the alternatives we are
6 looking at.

7 MR. AIKEN: Now, my question was -- for example, in
8 the tables in 2020, you've got a price of \$3.91. Now,
9 forget about whether that's the actual forecast that will
10 be used for any particular contract. But using this
11 example, would that \$3.91 then be used to calculate the
12 PGVA reference price along with all the other sources of
13 gas that Union has?

14 In other words, are you treating an RNG contract like
15 a long-term gas supply fixed-price contract for PGVA
16 reference prices?

17 MS. NEWBURY: Yes.

18 MR. AIKEN: I thought I heard somebody say this
19 morning that any variance from the forecast used would be
20 captured in the PGVA and recovered from system gas
21 customers. Did I misunderstand that?

22 MS. NEWBURY: No, and that's where this is confusing.
23 You did not misunderstand that.

24 So the conversation this morning was the calculation
25 of the deferral account. What this is showing is what --
26 how we would -- so again, this is showing what a contract
27 would look like. So we would take a forecast out over the
28 period and we would forecast cost of gas and then a

1 forecast cost of carbon, and then the delta is the
2 provincial funding required.

3 So in the example used this morning, the figures from
4 line A, the forecast cost of gas, would not be the
5 quarterly reference price. They would be an input to the
6 quarterly reference price, along with other gas supply
7 contracts.

8 MR. AIKEN: Right, and am I correct that there would
9 be no variance in the RNG components of the PGVA on a
10 quarterly basis, because your actual costs are what your
11 forecast is built into that RNG contract?

12 MS. NEWBURY: If I'm understanding you correctly, what
13 you are asking is if this forecast cost of gas is being
14 treated as an actual cost of gas in the context of the PGVA
15 when comparing it to other supply sources, then the answer
16 is yes.

17 MR. AIKEN: When you say it is recovered from system
18 gas customers, does that include system gas customers that
19 are large final emitters, voluntary participants and/or
20 wholesale customers?

21 MS. NEWBURY: In the context that we're using here of
22 system gas customers, it would be anyone who purchases
23 their gas from Union Gas and is not a direct purchase
24 customer.

25 MR. AIKEN: So that could include large final
26 emitters, voluntary participants and wholesale customers?
27 For example, do you have a wholesale customer that buys
28 system gas from Union?

1 MS. NEWBURY: We don't have a rates person here, but
2 subject to check, I'll say yes. But that is subject to
3 check.

4 MR. AIKEN: Now, I guess, just to take a step
5 backwards, if the cost of gas -- the RNG you are purchasing
6 is displacing conventional natural gas so that the -- if
7 the RNG price for that gas which is fixed as part of the
8 contract, if that is higher or lower than the price of the
9 gas that's being displaced, that variance is captured in
10 the PGVA and that is allocated to system gas customers?

11 In other words, they're at risk for any higher or
12 lower prices for conventional natural gas that they're
13 purchasing, or that they would have purchased in the
14 absence of the RNG; is that correct?

15 MS. NEWBURY: Yes.

16 MS. DJURDJEVIC: Mr. Aiken, I'm not sure if you're
17 still there, but we're not hearing you.

18 MR. AIKEN: Sorry, I didn't hear a response.

19 MS. NEWBURY: I'm sorry, I said yes.

20 MR. AIKEN: Okay. Now, does this -- with that impact
21 the cost of gas paid by Union for its facility-related gas?

22 MS. NEWBURY: I believe it does. But again, it would
23 have to be subject to check.

24 MR. AIKEN: Just to make it clear, is facility-related
25 gas, is that compressor fuel, USG, and building heating?
26 Is there something I'm missing?

27 MS. NEWBURY: I don't have that information.

28 MR. AIKEN: Would you undertake to confirm what is --

1 what types of natural gas use are included in facility-
2 related gas?

3 MS. NEWBURY: Yes.

4 MS. DJURDJEVIC: That's undertaking JT1.21.

5 **UNDERTAKING NO. JT1.21: TO CONFIRM WHAT TYPES OF**
6 **NATURAL GAS USE IS INCLUDED IN FACILITY-RELATED GAS;**
7 **TO PROVIDE WHICH FACILITY-RELATED GAS CHARGES OR GAS**
8 **COSTS HAVE A VARIANCE ACCOUNT OR A DEFERRAL ACCOUNT**
9 **ASSOCIATED WITH THEM**

10 MR. AIKEN: Okay. Moving on to bullet number 2 in the
11 response, this deals with the cap-and-trade costs.

12 So my understanding is the cost included in the cap-
13 and-trade costs in the second line in table 3 in the
14 question is really an abatement cost, while the cost of the
15 emission credits for the RNG is effectively eliminated. Is
16 that correct?

17 MS. NEWBURY: So to the extent that we use -- that we
18 purchase RNG, it does reduce our obligation and so...

19 MR. AIKEN: Right, because you don't have to buy
20 credits for renewable natural gas that you buy.

21 MS. NEWBURY: That's correct.

22 MR. AIKEN: That is correct. My understanding is you
23 do you not have to buy emission credits for renewable
24 natural gas that you purchase; is that correct?

25 MS. NEWBURY: Yes. RNG does not generate emissions
26 for the purposes of cap-and-trade.

27 MR. AIKEN: And then these costs are allocated to both
28 customer-related and facility-related costs, based on your

1 evidence.

2 So my question is: Do all customers, whether they're
3 system or direct purchase, large final emitters, voluntary
4 participants and wholesale customers pay the facility-
5 related charge?

6 MS. DJURDJEVIC: Just again in the interests of time,
7 if we have some questions that, you know, involve some
8 review documents, if we could just do that by way of
9 undertaking, and then come back with the answers if that
10 would be acceptable.

11 MS. NEWBURY: I can take that as an undertaking.

12 MS. DJURDJEVIC: Okay. That is JT1.22, and it was
13 whether all customers are paying facility-related charges.

14 **UNDERTAKING NO. JT1.22: TO ADVISE WHETHER ALL**
15 **CUSTOMERS, BEING SYSTEM AND DIRECT PURCHASE, LARGE**
16 **FINAL EMITTERS, VOLUNTARY PARTICIPANTS, AND WHOLESALE**
17 **CUSTOMERS, ARE PAYING FACILITY-RELATED CHARGES AND WHO**
18 **PAYS THE CUSTOMER-RELATED CHARGE? IS IT SYSTEM AND**
19 **DIRECT PURCHASE CUSTOMERS EXCEPT FOR LARGE FINAL**
20 **EMITTERS, VOLUNTARY PARTICIPANTS, AND WHOLESALE**
21 **CUSTOMERS?**

22 MR. AIKEN: Yes, specifically all customers, being
23 system and direct purchase, large final emitters, voluntary
24 participants, and whole customers -- wholesale customers
25 pay facility-related cost -- charge, and then the second
26 part would be: Who pays the customer-related charge? Is
27 it system and direct purchase customers except for large
28 final emitters, voluntary participants, and wholesale

1 customers?

2 MS. DJURDJEVIC: Okay, we have that now as Undertaking
3 JT1.22.

4 MR. AIKEN: Okay. Then actually, if we can go back to
5 Undertaking JT1.21, whatever it is, the facility-related
6 gas one. Can I add there to ask Union to provide which
7 facility-related gas charges or gas costs have a variance
8 account or a deferral account associated with them.

9 MS. DJURDJEVIC: Can Union add that to JT1.21? Okay.

10 MR. AIKEN: Yes.

11 MS. DJURDJEVIC: We have nodding, so that is a yes.

12 MR. AIKEN: Okay. Then bullet 3 on page 2 -- and this
13 deals with the third line in the Figure 3, the government's
14 funding. Is there any variance associated with this
15 funding? In other words, we have potential variances in
16 the gas cost line. We have potential variances in the
17 carbon cost line. Is there any potential variance in the
18 provincial funding line based on your proposal?

19 MS. NEWBURY: Based on our proposal there will not be
20 any variability in any of the component costs.

21 MR. AIKEN: Okay. Now if we could turn to B.LPMA.14.
22 And the response to part B indicates that Union expects the
23 total RNG to be purchased annually over the coming years to
24 be approximately 4.9 petaJoules, and then the second
25 paragraph it says Union only purchases approximately 3.4
26 petaJoules for facility-related fuel requirements.

27 And my question is this, and it will probably require
28 an undertaking: If Union were to purchase 3.4 petaJoules

1 for its facility-related fuel requirements as part of the
2 4.9 petajoules of RNG that it expects to purchase, how
3 would that impact who was at risk for the variances in the
4 cost of gas and in the cost of carbon?

5 MS. DJURDJEVIC: Do you want to take that -- do that
6 by way of undertaking as well?

7 MS. NEWBURY: Yes.

8 MS. DJURDJEVIC: So that is JT1.23.

9 **UNDERTAKING NO. JT1.23: TO ADVISE, IF UNION WERE TO**
10 **PURCHASE 3.4 PETAJOULES FOR ITS FACILITY-RELATED FUEL**
11 **REQUIREMENTS AS PART OF THE 4.9 PETAJOULES OF RNG THAT**
12 **IT EXPECTS TO PURCHASE, HOW WOULD THAT IMPACT WHO WAS**
13 **AT RISK FOR THE VARIANCES IN THE COST OF GAS AND IN**
14 **THE COST OF CARBON.**

15 MR. AIKEN: And those are my questions. Thank you.

16 MS. DJURDJEVIC: Thank you, Mr. Aiken. Now moving
17 over to FRPO, and I believe Mr. Quinn is here, so --

18 MR. QUINN: Yes, I am.

19 MS. DJURDJEVIC: -- over to you.

20 **QUESTIONS BY MR. QUINN:**

21 MR. QUINN: Good afternoon, panel. Dwayne Quinn on
22 behalf of FRPO. I advanced a submission just as reference
23 to try to help move things along this afternoon, and it was
24 submitted through the Board and copied to the company; do
25 you have that available? And by the miracles of technology
26 we have it on the screen. Thank you.

27 Okay. I just want to walk through the background to
28 make sure I have the context appropriately and then ask a

1 few follow-up questions.

2 As you are familiar with, in FRPO 1 we asked
3 specifically about the claim that Union made that RNG does
4 not release any additional carbon into the atmosphere. And
5 in its response on page 2, I believe it is, but I've
6 provided the quote -- sorry, I'll read the quote -- Union
7 referenced the regulations, which say that:

8 "Biomass combustion is carbon-neutral since
9 emissions of CO₂ from combustion of biomass for
10 energy and national inventories are currently
11 assumed to have no net RF (radiative forcing)
12 based upon the assumption that these emissions
13 are compensated by biomass regrowth."

14 Do you see that?

15 MS. NEWBURY: Yes.

16 MR. QUINN: Okay. So we extracted that same reference
17 page, which is on the next page, and we highlighted the
18 section which we believe Union is referencing; is that the
19 section you were referencing?

20 MS. NEWBURY: I'm sorry, I missed the question.

21 MR. QUINN: Is that the section -- do I have the
22 correct section of that document that you will rely upon in
23 your IR response?

24 MS. NEWBURY: So once again we don't have a technical
25 witness on the panel, but if your question is whether RNG
26 is a low-called (sic) carbon alternative to conventional
27 natural gas, I think it's been addressed in multiple
28 places.

1 MR. QUINN: That's not my question. My question in
2 this section -- and can you take it subject to check, this
3 is the reference that you are relying upon for your
4 response in FRPO 1?

5 MS. SEERS: Mr. Quinn, we can take that subject to
6 check, just to confirm that that was the reference, but in
7 light of the Board's second procedural order we haven't put
8 an RNG technical person on the panel, so I'd ask for the
9 questions to bear that fact in mind that RNG isn't supposed
10 to be within the scope of this technical conference.

11 MR. QUINN: Well, Mr. Aiken just spent quite a bit of
12 time on the RNG, and I didn't hear that the restriction on
13 his questions related to RNG.

14 We're talking about the priority of programs that the
15 companies will deliver in their compliance abatement
16 programs. RNG, I understand, is still one of those;
17 correct?

18 MS. SEERS: Understood. I'm just making the point
19 that this panel is answering as best they can, and so --
20 but if questions are going to be delving into the technical
21 nature of RNG, that's where I think the ability of this --
22 the members of this panel to answer will be exhausted, so I
23 am simply noting that for you to know it. That's all.

24 MR. QUINN: Thank you, and so you'll take an
25 undertaking then if there's people back in your offices
26 that can answer the questions?

27 MS. SEERS: It --

28 MR. QUINN: I know you will have to listen to the

1 question, so --

2 MS. SEERS: It will depend on the question, yes --

3 MR. QUINN: Yes, so I will go on to the next sentence
4 in that same reference document. It says:

5 "However, there is a time lag between combustion
6 and regrowth, and while the CO₂ is resident in the
7 atmosphere it leads to additional RF."

8 Now, my reading of this section is when the emissions
9 are netted out over time due to regrowth of the biomass,
10 that absorbs carbon dioxide from the atmosphere; is that
11 your understanding of this section also?

12 MS. FLAMAN: So we would have to take an undertaking
13 to get comment on that.

14 MR. QUINN: Okay. Well, then if you would take it by
15 undertaking I will give you the follow-up question to that:

16 "Please explain how this phenomenon occurs
17 for human or animal waste being converted to
18 methane for the purposes of RNG."

19 MS. FLAMAN: To the extent the information exists we
20 can look at that.

21 MS. DJURDJEVIC: That's JT1.24.

22 **UNDERTAKING NO. JT1.24: TO ADVISE WHETHER IT IS**
23 **CORRECT THAT WHEN THE EMISSIONS ARE NETTED OUT OVER**
24 **TIME DUE TO REGROWTH OF THE BIOMASS, THAT ABSORBS**
25 **CARBON DIOXIDE FROM THE ATMOSPHERE; ALSO, TO EXPLAIN**
26 **HOW THIS PHENOMENON OCCURS FOR HUMAN OR ANIMAL WASTE**
27 **BEING CONVERTED TO METHANE FOR THE PURPOSES OF RNG.**

28 MR. QUINN: Thank you.

1 Now, Mr. Aiken was already leading you through Staff
2 6, and in Staff 6 it is pretty clear that RNG has to be
3 heavily subsidized from some form of government or agreed-
4 on funding.

5 If you took the situation that it was funded
6 completely through dollars paid for by ratepayers, and
7 these were made available through the compliance costs for
8 natural gas, would the cost of the abatement per tonne of
9 CO₂ be over \$300, as laid out in the response to Staff 6 in
10 the attachment?

11 I did put that as the last page of the reference
12 document, if you need to look at it.

13 MS. NEWBURY: I'm sorry, I'm having a difficult time
14 hearing you. Could you just repeat the last part of your
15 question?

16 MR. QUINN: If all of the dollars that paid for the
17 RNG program came from compliance costs for natural gas
18 customers, would the cost for the abatement per tonne of CO₂
19 be over \$300?

20 MS. NEWBURY: Sorry, I missed part of the question, I
21 think. So are you referring to Exhibit B, Staff 6,
22 attachment 1?

23 MR. QUINN: Yes.

24 MS. NEWBURY: Okay, and your question is?

25 MR. QUINN: If all of the dollars that were required
26 for -- required GreenON subsidiaries, as you've laid out in
27 line C, came from compliance costs from natural gas
28 ratepayers, would the total cost to natural gas ratepayers

1 for the abatement of 1 tonne of CO2 be over \$300?

2 MS. DJURDJEVIC: Sorry to interrupt deliberations, but
3 is this maybe another question where an undertaking may be
4 appropriate? All right, I'll make that JT1.25.

5 As I understand the question, if RNG was not
6 government subsidized, whether the cost to ratepayers would
7 be, on average, \$300 a tonne. Did I characterize that...

8 MR. QUINN: Mr. Rubenstein is trying to be helpful.
9 I'd like to accept his counsel on improving the
10 undertaking.

11 MR. RUBENSTEIN: Well, if you are doing an
12 undertaking, could you provide the actual cost?

13 MR. QUINN: Yes, that was actually going to my next
14 question.

15 Was evidence in an interrogatory -- sorry, in
16 interrogatory response to any of your -- you don't need to
17 turn it up, but what you gave to the government in
18 attachment 8 of Energy Probe 2 was \$13.05 -- was
19 representative with a 650 enabler. But the evidence in
20 Exhibit 3, tab 4, pages 20 and 21 uses 16.

21 Could you provide what the actual -- what the current
22 forecast is for the all-in total cost of RNG. And if your
23 answer is -- if there is a range for what you've produced
24 for the government in terms of your proposals, provide what
25 that range is for the actual cost, all-in cost of RNG?

26 MS. SEERS: Can we take this in chunks just to make
27 sure we have it down accurately?

28 So the first question is to provide the all-in total

1 cost of RNG absent government funding?

2 MR. QUINN: Sure. Was it given a number, Ms.
3 Djurdjevic?

4 MS. DJURDJEVIC: It will be JT1.25.

5 **UNDERTAKING NO. JT1.25: TO ADVISE IF THE RESPONSE IS**
6 **ANY DIFFERENT IF THE REFERENCE POINT IS SOMETHING**
7 **OTHER THAN THE STAFF.6 EXAMPLE**

8 MS. NEWBURY: Again, for clarification, based on the
9 illustrative example in Board Staff 6? Okay.

10 MR. QUINN: To the extent that changes anything, can
11 you help me with what that changes?

12 MS. DJURDJEVIC: Can we just add that to the
13 undertaking and to advise if the response is any different
14 if the reference point is something other than the Board
15 Staff 6 example? Okay, that will all be part of JT1.25.

16 MS. SEERS: Advise if the response is any different...

17 MS. DJURDJEVIC: If the costs -- I guess for the
18 calculations, is what I heard anyway -- is based on
19 something other than this example which has been provided
20 by Board Staff in Board Staff Interrogatory No. 6.

21 Like if there is another source, to calculate the all-
22 in total costs of RNG. I think that's what the question
23 was but -- okay? I hear no objections or clarifications.

24 MS. SEERS: We'll do our best with it. We're not sure
25 we understand.

26 MS. DJURDJEVIC: That's what we're all trying to do.

27 MS. SEERS: We will do our best to respond.

28 MS. DJURDJEVIC: Okay.

1 MR. QUINN: And the second undertaking was what is the
2 forecast cost at this point for RNG and to the extent there
3 is a range, to provide the range. And if a range is
4 provided, was that same range used for any current
5 proposals to the government for GreenON funding?

6 MS. DJURDJEVIC: Okay, if that's acceptable, we'll
7 give that JT1.26.

8 **UNDERTAKING NO. JT1.26: BASED ON THE EXAMPLE IN BOARD**
9 **STAFF 6, TO PROVIDE THE CURRENT FORECAST FOR THE ALL-**
10 **IN TOTAL COST OF RNG, ABSENT GOVERNMENT FUNDING; IF**
11 **THERE IS A RANGE, TO PROVIDE THE RANGE OF THE ACTUAL**
12 **COST; SUBJECT TO CONFIDENTIALITY RESTRAINTS AND**
13 **PROTOCOLS, IF ANY.**

14 MS. NEWBURY: Sorry, I need to ask first. I'm confused
15 by the line of questioning, and that might be why I'm
16 pausing as much as I am. So are you asking us the forecast
17 cost of RNG that we are expecting to pay in procuring RNG?

18 MR. QUINN: I'm asking if -- let's break this down.
19 My understanding this morning was you are still in
20 discussions with the government for GreenON funding,
21 correct?

22 MS. NEWBURY: Correct.

23 MR. QUINN: Okay. There had to be a basis how much
24 funding you were looking for, correct?

25 MS. NEWBURY: So the basis of how much funding we're
26 looking for is based on the funding that is available.

27 MR. QUINN: And that would determine how many projects
28 you can do based upon an expected RNG cost.

1 MS. NEWBURY: So the number of projects you we are
2 able to do, you are correct, is based on the RNG cost. We
3 don't know how many we will be able to do, until we get the
4 RFP responses and we understand the costs.

5 MR. QUINN: What range is currently being used to...

6 MS. NEWBURY: I'm sorry?

7 MR. QUINN: What range is being used in your proposal
8 to the government?

9 MS. NEWBURY: Right now we have an illustrative rate
10 of \$16 that has been provided. We will see what the actual
11 market cost is through the RFP. That's the whole purpose
12 of the RFP.

13 MR. QUINN: So no range was provided to the government
14 to...

15 MS. NEWBURY: No. You've seen the documents that have
16 been provided to the government.

17 MR. QUINN: Whether are the RFPs due?

18 MS. NEWBURY: The RFP is in process. We are on target
19 right now to award contracts May 1st.

20 MR. QUINN: Okay, that would be good timing for the
21 hearing. So we would ask in advance an undertaking be
22 taken that a range is provided. I understand commercial
23 sensitivity, so to the extent that a range of actual RFP
24 costs are provided, that that be provided at the outset of
25 the hearing.

26 MS. NEWBURY: You are correct about concerns about
27 confidentiality in that request. But to the extent that we
28 can provide the information in such a way that we can

1 maintain confidentiality, we can take a look at that.

2 MR. QUINN: That would be most helpful to the Board.

3 Thank you.

4 MS. DJURDJEVIC: Is this JT1.26? You were asking for
5 something else. This will be JT1.26.

6 MR. QUINN: That clarifies it, thank you.

7 MS. DJURDJEVIC: And if I understand correctly, it is
8 the ranges of cost of RNG that is submitted in the RFP
9 process that it's undergoing?

10 MR. QUINN: Yes.

11 MS. DJURDJEVIC: Subject to confidentiality restraints
12 and protocols, if any.

13 MR. QUINN: You'll be happy to know I'm leaving RNG.
14 I'd like you, if you would, to turn up Staff 13, please.

15 Sorry, Staff -- SEC 13. My correction.

16 There, thank you. And if you could scroll to the
17 table in the response, the question was asked in terms of
18 the costs of the FTEs. And I noted the total overhead
19 loading of 81 percent.

20 Two-part question. I'll ask the first part first.
21 Can you provide a definition or an understanding of what's
22 in the incentive plan loading?

23 MR. DANTZER: So I would understand that to be just
24 kind of a short-term incentive plan compensation amount.

25 MR. QUINN: For the delivery of what metrics?

26 MR. DANTZER: Well, there would be a number of them.
27 I don't -- there's a number of short-term incentive plan
28 metrics as part of our overall HR compensation --

1 MR. QUINN: I'm speaking specific to this -- to what
2 these FTEs are going to be doing in the compliance program,
3 not the general HR for --

4 MR. DANTZER: Oh, I see. It's my understanding that
5 the incentive plan loadings that we see here are not
6 specific to cap-and-trade.

7 MR. QUINN: Okay, well, then under cap-and-trade there
8 needs to be some evaluation. Your short-term plans have
9 different metrics, some of which is delivery in your
10 functional area; correct? Delivery of performance in your
11 functional area?

12 MR. DANTZER: That would be a metric --

13 MR. QUINN: Okay. Well, maybe I can make this a
14 little easier for all of us and save some folks some time.
15 By way of undertaking could you break out for all three of
16 those categories -- benefits loading, total of general
17 overheads, and incentive plan loading -- a better breakdown
18 of where the costs come from and then specific incentive
19 plan loading specific to the responsibilities of these
20 twelve-and-a-half people in compliance, what are they being
21 incented to do, what metrics are they being measured
22 against for their incentives?

23 MR. DANTZER: When you say "breakdown of where costs
24 come from", what do you mean by that?

25 MR. QUINN: What are some of the cost components that
26 make up, as an example, benefits loading? If these are all
27 general overheads as related to the company costs, you can
28 say what the major components are for the company costs, if

1 these are a general category, but I'm specifically
2 interested in the incentive plan loading and what metrics
3 the folks in compliance are being measured against to be
4 eligible for getting incentive plan from the company.

5 MR. DANTZER: So you'd be interested in the cap-and-
6 trade FTEs, specifically what components of their incentive
7 plan loadings related to the compliance plan? Do I have
8 that correct?

9 MR. QUINN: Yes.

10 MR. DANTZER: We can check to see if any.

11 MR. QUINN: Okay. Thank you.

12 MS. DJURDJEVIC: That is JT1.27.

13 **UNDERTAKING NO. JT1.27: TO BREAK OUT FOR ALL THREE OF**
14 **THOSE CATEGORIES -- BENEFITS LOADING, TOTAL OF GENERAL**
15 **OVERHEADS, AND INCENTIVE PLAN LOADING -- A BETTER**
16 **BREAKDOWN OF WHERE THE COSTS COME FROM AND THEN**
17 **SPECIFIC INCENTIVE PLAN LOADING SPECIFIC TO THE**
18 **RESPONSIBILITIES OF THESE TWELVE-AND-A-HALF PEOPLE IN**
19 **COMPLIANCE, WHAT ARE THEY BEING INCENTED TO DO, WHAT**
20 **METRICS ARE THEY BEING MEASURED AGAINST FOR THEIR**
21 **INCENTIVES.**

22 MR. QUINN: And I am going to wrap up with this last
23 area in respect of time here.

24 In Staff 25 you, I think, turned that up briefly this
25 morning, but you are talking about micro-generation. And
26 maybe it might be helpful just to make sure you can read it
27 if you are comfortable, but again I saw the phrase
28 "emission-neutral" that micro-generation, it's in answer to

1 response (d), second bullet. Sorry, I think it's in the
2 second bullet sorry, or, sorry, in the first bullet. It
3 says in the first bullet:

4 "They can be a GHG-emission-neutral solution."

5 Can you explain to me how micro-generation is GHG-
6 emission-neutral?

7 MR. TROFIM-BREUER: Yes, so micro-generation or micro
8 CHB refers to the ability to create combined heat and power
9 at the residential level. In that context, depending on
10 what the makeup of the energy mix that comes from the grid
11 is, depending on time of day and other elements, in that
12 particular context if the energy -- energy generator --
13 generated at the site is more efficient because you are
14 using one field source to actually create two different
15 outputs, heat and power, and with that in mind, based on
16 that, they can be a GHG-emission-neutral option. That --
17 and also to clarify, that is not only specific -- that is
18 not primarily specific to Ontario, that is where we are
19 conducting pilot demonstration projects, but it is more
20 relative in general, what that might look like.

21 MR. QUINN: Would you agree with me that to be able to
22 make that assessment you'd have to know how much -- well,
23 you'd have to know what the different components are of the
24 generation stack; correct?

25 MR. TROFIM-BREUER: Yes, I agree --

26 MR. QUINN: Okay. And --

27 MR. TROFIM-BREUER: -- and that's why we're saying it
28 is a potentially emission-neutral option and that's why we

1 need to conduct a pilot demonstration test to actually come
2 up with quantifiable data that can or cannot invalidate
3 that assumption.

4 MR. QUINN: There must be, though, the theoretical
5 capability of calculating as an example how much natural
6 gas would be in that generation stack to be able to make
7 that statement that the CHP is emission-neutral in the
8 generation of heat and power; correct?

9 MR. TROFIM-BREUER: That would be, yes. I just have
10 to note that you talked about CHP as a whole. Industrial
11 level CHP exists in Ontario since many years. It has been
12 used in different settings, whether in hospitals or any
13 other settings where you actually need the reliability of
14 the system and stuff like that.

15 In terms of micro-generation, we are really in a
16 nascent market. It is really very at the beginning,
17 particularly in less than five-kilowatt-hour area, and for
18 that reason the data doesn't necessarily exist.

19 MR. QUINN: The data doesn't necessarily exist, but
20 you can calculate it theoretically, can you not?

21 MR. TROFIM-BREUER: We are conducting currently the
22 pilot demonstration projects. We have identified that as
23 an opportunity. So, yes, one the -- we would be going
24 through measurement and verification of those pilot
25 demonstration projects, we will be able actually to look
26 into that in more detail.

27 MR. QUINN: If you took a baseline understanding of a
28 customer in Chatham at their current electricity and

1 natural gas rates, can you not calculate what percentage of
2 natural gas must be in the generation stack to be able to
3 make that statement it is emission-neutral? It is math.

4 MR. TROFIM-BREUER: I agree. I am thinking about
5 the --

6 MR. QUINN: Okay --

7 MR. TROFIM-BREUER: -- next aspect of your question.

8 MR. QUINN: Yeah, in respect of people's time, can you
9 undertake on a best-efforts basis to do that calculation
10 for us, and if you cannot do that calculation tell us why,
11 and then how -- if you can't do it, tell us why, and then
12 the B part of that would be, then how are you making the
13 statement it is emission-neutral if it can't be calculated.

14 MR. TROFIM-BREUER: Okay. So one, we are not making
15 the statement that it is. The statement, as identified in
16 the exhibit, is if they can be, so I think it's an
17 important distinction.

18 MR. QUINN: Okay, let's calculate it in --

19 MR. TROFIM-BREUER: And if you -- just one question
20 has been --

21 MS. SEERS: Can you clarify the calculation you are
22 asking for?

23 MR. QUINN: I was just using -- trying to establish
24 some reality around it. You've got -- and I used Chatham,
25 so let's use Chatham. You've got an electricity rate and
26 you have got a natural gas rate. To the extent that you
27 are using a -- using micro-generation to generate both for
28 the house, what percentage of the generation stack for

1 Ontario would natural gas have to make up to be able to
2 make that statement that it's emission-neutral?

3 MR. TROFIM-BREUER: I'm sorry, we cannot provide that
4 kind of calculation, because it is very, very difficult.
5 It depends on a number of things. We cannot necessarily,
6 at least to my understanding, we cannot necessarily predict
7 exactly how many peak plans are coming in at what time. It
8 would take a lot of assumptions to be able to do that, so
9 we are --

10 MR. QUINN: No, no, I'm not saying what actually is
11 coming into the generation stack. You work backwards from
12 what's the cost of the house, what's the avoided cost of
13 the house. Therefore, what emissions are you reducing
14 other than a natural gas stream that generates hydro for
15 the province? That as theoretical calculation. It doesn't
16 have to be based on actual data in the stack.

17 If you could take it on a best efforts basis and if
18 you can't answer the question, then you have your technical
19 experts tell us why you can't answer the question. That
20 would be helpful.

21 MS. SEERS: It will be a refusal. Our understanding
22 is that we can't provide that information and so if that
23 changes, we'll let you know. But for now, take it as a
24 refusal.

25 MR. QUINN: If I may? I'm sorry, I'll make this
26 brief.

27 At the outset, you said you don't have a technical
28 expert on this panel related to RNG. Do you have a

1 technical expert related to the question I asked? Is there
2 a technical expert that knows that calculation and knows it
3 can't be done? All I'm asking is best efforts.

4 MS. SEERS: We will ask the question whether the
5 calculation can be done, and answer that question.

6 MR. QUINN: A response, if it can be done, you will
7 provide the calculation? Is that that what I'm
8 understanding?

9 MS. SEERS: That part is under advisement.

10 MR. QUINN: All right, those are my questions. Thank
11 you.

12 MS. DJURDJEVIC: Thank you, Mr. Quinn. So, we have
13 two more parties with relatively short questions or time
14 estimates. So I propose that we try to get through those
15 and then take a break, and then continue on from there.

16 So the next intervenor that we have questioning is
17 APPrO, and I believe Mr. Wolnik is on the phone on behalf
18 of APPrO.

19 MR. WOLNIK: I'm here.

20 MS. DJURDJEVIC: All right, over to you Mr. Wolnik.

21 **QUESTIONS BY MR. WOLNIK:**

22 MR. WOLNIK: Thank you very much. Good afternoon.

23 I have a few questions that I kind of just wanted to
24 follow-up from some specific IRs, and the first one relates
25 to APPrO 6.

26 I wonder if you could take a look at that, and let me
27 know when you have it.

28 MR. WOLNIK: Have you got that yet?

1 MR. DANTZER: Yes.

2 MR. WOLNIK: So this IR deals with the hydrogen
3 content of the gas itself, and you are proposing an upper
4 limit of 4 percent.

5 Gas-fired generators, as you know, use large volumes
6 of natural gas and combustion efficiency is of critical
7 importance to these customers, as is the integrity of their
8 equipment. So I have a couple of questions in that area.

9 I was pleased to see at the top of page 2 that you
10 indicate that customers' equipment and processes are of
11 utmost importance to Union. However, at the bottom of
12 page 1, you indicate that you have not consulted with
13 customers and that customer considerations will be
14 identified through the joint AGA, CGA North American
15 hydrogen/power to gas task groups.

16 So it appears that Union will not be consulting with
17 some of its largest customers, but will rely on this
18 committee to raise customer concerns.

19 So my question is why won't you consult with these
20 large customers to get their view of hydrogen and changes
21 to the gas quality?

22 MR. TROFIM-BREUER: Actually, in response, paragraph
23 C, I'd like to emphasize the point of not yet engaged with
24 customers to the potential changes.

25 I think eventually the approach we've taken so far is
26 actually understanding what the implications might be in
27 terms of injecting hydrogen in North American pipelines.
28 And therefore, the power to gas task force exists.

1 Once that determination, the reports are coming out
2 and everything else. After that, I can envision that there
3 will be considerations and discussions with the large --
4 with our large customers.

5 MR. WOLNIK: But in that paragraph C, you specifically
6 say:

7 "Customer considerations will be identified
8 through the joint task group."

9 You don't say you are going to talk to customers and
10 get their input. By the time you've talked to customers,
11 you will have already determined what customer
12 considerations are.

13 MR. TROFIM-BREUER: Again, it may be semantics. The
14 way we phrased that phrase was that given where we are in
15 the technology development process, at this point it is
16 anticipating that those considerations will be identified
17 through the task force.

18 Once that task force comes up with a determination, at
19 that point, further actions will be identified as required.
20 And in that context, I can very well imagine that certain
21 -- you know, engagement with customers will happen.

22 MR. WOLNIK: So to the extent there are risks or costs
23 borne by customers, are those costs going to be identified
24 in the overall evaluation of using hydrogen? And secondly,
25 who will bear those costs and risks?

26 MR. TROFIM-BREUER: I understand the question with
27 respect to who is going to bear the cost. But it is, in
28 the context of today, too early to call for that.

1 I think the first step is really to give the
2 opportunity to the -- to the power to gas task force to
3 actually complete their understanding and put together
4 their report and based on that report, further actions will
5 be identified.

6 MR. WOLNIK: So it is not that there could be costs or
7 risks that customers may have may have to bear?

8 MR. TROFIM-BREUER: I don't know, I can't speculate to
9 that. It is just too early.

10 MR. WOLNIK: If you haven't identified all these costs
11 and risks yet, how did you come up with a 4 percent upper
12 limit?

13 MR. TROFIM-BREUER: So that 4 percent number is an
14 initial estimate number based on internal discussions with
15 our engineering group and a couple of other experts.

16 It's really one perspective of prudence. We need to
17 make sure that we do not add hydrogen to a point where
18 there might be potential implications. So it's based on
19 initial, as I said, discussions internally and that
20 4 percent will be informed by the power to gas task force
21 that we reference a little bit earlier.

22 MR. WOLNIK: In B, where you say Union has developed a
23 maximum hydrogen content of 4 percent, that's not the case
24 then? This is just an initial estimate?

25 MR. TROFIM-BREUER: At this point, yes.

26 MR. WOLNIK: Okay. And this task group that you are
27 part of, will it be explicitly dealing with gas-fired
28 generation issues?

1 MR. TROFIM-BREUER: I'm not exactly aware of all the
2 members of the task force. There are a couple that I'm
3 unfamiliar with.

4 We have somebody in our company who is actually part
5 of the day-in, day-out activities of this task force.

6 What I could offer is essentially to, you know, take
7 an undertaking and respond to we -- do we have any gas-
8 fired generator customers involved in that task force.

9 MR. WOLNIK: I'm not asking if there is gas-fired
10 generation customers. I'm asking if you are dealing with
11 potential issues of gas-fired generation customers would
12 have to deal with. So are you dealing with those issues in
13 this task group?

14 MR. TROFIM-BREUER: I'm not aware how that happens
15 within the task force. I'm not a standing member of the
16 task force, so I can't respond to that.

17 MR. WOLNIK: Would you advise if gas-fired generation
18 -- gas quality issues are being addressed in the task
19 group?

20 MS. SEERS: If gas quality issues are being addressed
21 as part of the task force?

22 MR. WOLNIK: Right.

23 MS. DJURDJEVIC: Sorry, that's --

24 MR. WOLNIK: I mean, the issue that we've got here is,
25 if you're changing the -- potentially changing the
26 combustion characteristics on the natural gas and you are
27 also introducing a much higher hydrogen content that is
28 there today, there is virtually zero there today, and as

1 you know, there is the potential for hydrogen to migrate
2 into high-pressure steel pipes and cause cracking of the
3 pipes themselves. Union will have the same problem.

4 So what I'd like to make sure is that those issues are
5 being addressed as part of the task force, and all I'm
6 asking at this time is: Are those issues being addressed
7 within the task force?

8 MR. TROFIM-BREUER: On that I can respond immediately,
9 yes, they are addressed. Now, the specifics on how, I
10 don't know, but I know that they are, because I have heard
11 unequivocally conversations about that, so, yes, they are
12 addressed.

13 MR. WOLNIK: Okay. Let's move on then. I want to go
14 to APPrO 10, and I know that Mark Rubenstein asked a couple
15 of questions on this already, but I have a couple of
16 additional ones.

17 Just in terms of -- and this is dealing with the
18 disposition methodology, the 2016 deferral account. Can
19 you confirm this is the first time you've disposed of any
20 cap-and-trade costs?

21 MR. TROFIM-BREUER: Confirmed.

22 MR. WOLNIK: Thank you. And would you agree that
23 APPrO as a member of customers who are customers of Union
24 have raised concerns about recovering deferral account
25 balances of one-time charge for some time now?

26 MR. DANTZER: I don't have all of the history in terms
27 of, you know, your question around the concerns for some
28 time now, but I was part of the 2017 cap-and-trade

1 compliance plan proceeding, and I do recall the topic
2 brought up as part of that proceeding.

3 MR. WOLNIK: Okay, and that was a concern. Even if
4 it's just related to 2017, you agree that it was addressed
5 or at least raised as a concern.

6 MR. DANTZER: I recall the topic being brought up as
7 part of that proceeding, yes.

8 MR. WOLNIK: Okay, thanks. And in attachment 1 to
9 this APPrO 10, you based the unit charge of a forecast of
10 volumes by rate class. Can you comment on how you arrived
11 at these volumes?

12 MR. DANTZER: I cannot, no.

13 MR. WOLNIK: My next question was going to be: Can
14 you, by way of undertaking, sort of provide the actual
15 volumes by rate class for the last three years and the
16 three-year average?

17 MS. DJURDJEVIC: Can we mark that Undertaking JT1.30
18 -- or, sorry, are we at 29?

19 MR. DANTZER: Just a point of clarification. So it
20 would be the volumes by rate class that we've outlined here
21 in attachment 1 for '15, '16, and '17; is that correct?

22 MR. WOLNIK: That's right. And as far as an
23 undertaking, could you answer the first part of the
24 question as to how you came up with the forecast?

25 MR. DANTZER: I think we can certainly try.

26 **UNDERTAKING NO. JT1.29: TO PROVIDE THE ACTUAL VOLUMES**
27 **BY RATE CLASS FOR THE LAST THREE YEARS AND THE THREE-**
28 **YEAR AVERAGE AND ADVISE HOW THEY CAME UP WITH THE**

1 **FORECAST.**

2 MR. WOLNIK: Okay. Thank you.

3 Also on this attachment 1, I'm just looking at the M12
4 and the C1 volumes. It appears to me that the amount for
5 disposition for M12 is \$210,000 and 5,000 for C1.

6 And when I look at the forecast volume for those two
7 areas, you've got 650 million gJs for M12 and almost --
8 almost 300,000 gJs for C1.

9 Can you explain why the deferral amounts for C1 are so
10 much smaller than M12?

11 MR. DANTZER: Again, I wouldn't be in a position to
12 answer that question.

13 MR. WOLNIK: Is that something you could find out by
14 way of undertaking?

15 MR. DANTZER: Yep.

16 MS. DJURDJEVIC: That's JT1.30.

17 **UNDERTAKING NO. JT1.30: TO EXPLAIN WHY THE DEFERRAL**
18 **AMOUNTS FOR C1 ARE SO MUCH SMALLER THAN M12.**

19 MR. WOLNIK: Thank you. I wanted to move to Staff 25,
20 if I could. And in terms of micro-generation, could you
21 provide a brief summary of exactly what micro-generation
22 is, and specifically -- I appreciate that it's like CHP and
23 that you are providing heat and power at the same time, but
24 is this sized to produce heat? Is it sized to produce
25 electricity, or sized to produce both?

26 MR. TROFIM-BREUER: Thank you. So micro-generation,
27 the units we've been looking at right now are actually
28 sized to produce heat, and they are creating power at the

1 same time. So they have an efficiency of around 95, 96
2 percent, depending on which units we're looking at.

3 And the purpose of that is really to look at, how can
4 we use these types of units that are more efficient because
5 they are using -- you are creating a dual benefit out of a
6 single fuel in the province of Ontario.

7 There is, as I mentioned a little bit earlier, they
8 are really at the beginning -- this is a nascent market.
9 There are some other jurisdictions out there that are using
10 it, but in Ontario we haven't -- we are in the process of
11 starting to investigate the benefit of those units.

12 One that I'd like to highlight that is really
13 important is really resiliency. We've been talking about
14 resiliency, and we know natural gas, it's a very reliable
15 system. It is really good to be able to use -- to use
16 micro-generation and have benefit of those two energy
17 outputs.

18 MR. WOLNIK: And so in the summertime when these --
19 when there is no heating required, these units will just
20 sit idle then?

21 MR. TROFIM-BREUER: Well, that's part of the pilot
22 demonstration projects. It would depend on the
23 configuration of the house. In certain cases you may have
24 certain residential houses that have pools, and they are
25 already using natural gas to heat the pool, so they could
26 be displacing that, and if not, it would be just like a
27 regular furnace.

28 MR. WOLNIK: Okay. Is it -- are the size of these

1 micro-generation units smaller, bigger, or the same size as
2 an average furnace, in terms of gas consumption, peak hour?

3 MR. TROFIM-BREUER: The one that I have in mind right
4 now is actually the same as a high-efficiency, probably
5 within 5 percent in terms of -- in terms of consumption.

6 MR. WOLNIK: You don't anticipate peak hour being
7 greater, but could potentially drive reinforcement of the
8 distribution and transmission systems if this project takes
9 off or this application takes off?

10 MR. TROFIM-BREUER: No, I understand your question.
11 No, we've asked that question. No, we don't.

12 MR. WOLNIK: Okay. And do you have a guesstimate of
13 the number of potential units that you could install in
14 your franchise over the next few years, even order of
15 magnitude, is it a hundred? A thousand? A hundred
16 thousand?

17 MR. TROFIM-BREUER: Our focus so far has been
18 primarily on conducting a pilot demonstration project or a
19 couple of pilot demonstration projects, because there are
20 different technologies out there, in order to demonstrate
21 the promise of the technology. It would be too early for
22 me to speculate as to what that number would be.

23 That determination would be made once we get to a
24 stage 3, but we are not there yet. We are still in the
25 process on testing the technology to see its different
26 applications.

27 MR. WOLNIK: And in B you talk about your role as in
28 the commercialization of the technology. Is this your

1 technology or is it third-party technology?

2 MR. TROFIM-BREUER: So it is third-party technology.
3 It is not Union Gas technology.

4 MR. WOLNIK: Why aren't third parties sort of
5 underpinning these pilot tests? Why is it that customers
6 should be paying for this?

7 MR. TROFIM-BREUER: These projects are part of the
8 initiative following stage 1 and stage 2.

9 We are looking at them as opportunities to meet our
10 long-term investments. So long-term -- not investments,
11 but long-term compliance obligations in terms of GHG
12 emissions and efficiencies.

13 MR. WOLNIK: No, I understand that, what you are
14 looking to do. This is just one potential application.

15 My point is there's third-party commercial technology
16 out there. They are going to be -- if this is successful,
17 they are going to be the primary beneficiary of the
18 application, this technology. So why aren't they
19 contributing to -- contributing to these pilot projects?
20 Or are they contributing? Maybe that's a better question.

21 MS. FLAMAN: What you are asking is getting at the
22 heart of the abatement construct and why we've put it
23 forward.

24 Very much to your point, technologies that we're
25 exploring now have not -- are not ready for
26 commercialization, so we are looking at them. As Mr.
27 Trofim indicated, we are required to look at abatement in
28 the long-term, so this is part of that, how we can explore

1 new technologies that allow us to move forward and meet the
2 province's goals around lowering carbon and having a lower
3 carbon environment.

4 So this is just part of that work. I would say your
5 question specifically points to assuming that the
6 technology is ready to go.

7 The abatement construct is very much about exploring
8 technologies, moving them forward from conceptualization
9 through to formulating and proposing, and then
10 implementation.

11 MR. WOLNIK: I'd like to move on to Staff 21, if I
12 could. You talk about a number of pilot projects that you
13 hope to implement. How do you select the sites for these
14 pilot projects?

15 MR. TROFIM-BREUER: There are a couple for which we
16 have. For others, we haven't yet because we are still in
17 progress to identify where that could happen and we're also
18 looking to having the LCIF approved as well to be able to
19 proceed.

20 MR. WOLNIK: And my understanding is none of the hosts
21 are paying for any of this -- these applications or these
22 pilots?

23 MR. TROFIM-BREUER: Excuse me, could you repeat the
24 question? None of the?

25 MR. WOLNIK: None of the hosts.

26 MR. TROFIM-BREUER: Yes, yes, your understanding is
27 correct.

28 MR. WOLNIK: So it is really -- all of the funds for

1 all of these pilots are really being funded through this
2 \$2 million that you hope to receive; is that fair?

3 MR. TROFIM-BREUER: That is fair.

4 MR. WOLNIK: And how many of these pilots do you
5 expect to be installed on employee residences?

6 MR. TROFIM-BREUER: That's a great question. I can
7 answer it right away. None at this point.

8 MR. WOLNIK: Thank you. How will Union ensure that
9 these funds will be rationally applied to technologies that
10 have the most likelihood of success and the best cost
11 performance than some other specific pet projects that
12 Union might have?

13 MS. FLAMAN: So to that end, that's a good question.
14 I would draw your attention to the abatement construct
15 guiding principles.

16 We have very much been, as we develop the abatement
17 construct to consider new technologies. We have made sure
18 to be thoughtful, transparent, and keep in mind the cap-
19 and-trade guiding principles as well.

20 So I think it's important to note that we've developed
21 this abatement construct to ensure that we are meeting the
22 intent of the cap-and-trade guiding principles. And to
23 ensure consistency and transparency, we've developed a set
24 of guiding principles for the abatement construct.

25 MR. WOLNIK: Thank you. And given that you are using
26 ratepayer funds to sort of advance the application of these
27 technologies, are you going to make all non-private project
28 information public, so that any use of the technology or

1 any technology provider can learn from what you have
2 garnered on these pilot projects?

3 MR. TROFIM-BREUER: Yes, the short answer is yes. It
4 will be made available as soon as we get in front of the
5 OEB for this position.

6 MR. WOLNIK: How will you make that available? What's
7 the format to make that available?

8 MS. FLAMAN: We haven't -- so we absolutely will make
9 the information available.

10 At this time, we don't have the format decided. As
11 the technologies approach the formulate stage or stage 3
12 and get ready for implementation, we would have business
13 cases at that time that we would be able to discuss and
14 share.

15 MR. RUBENSTEIN: Sorry, John, it's Mark. Can I just
16 ask a follow-up?

17 MR. WOLNIK: Sure, go ahead.

18 MR. RUBENSTEIN: We had asked you in SEC 11:

19 "Please discuss Union's position regarding a
20 potential condition of an approval that all
21 research activities undertaken using these
22 ratepayer funds should be made available to the
23 public."

24 And your response was:

25 "Union expects these initiatives that proceed to
26 proposals for inclusion in the utility's
27 compliance plan will be subject to OEB processes,
28 and will therefore become public record as part

1 of the regulatory filing. Therefore, such a
2 condition of approval is not necessary."

3 Is that what you are just -- is that different than
4 what...

5 MR. WOLNIK: I think it is essentially the same, yes.

6 MR. RUBENSTEIN: In your response -- so just to be
7 clear, what you are proposing then is if you are doing a
8 stage 2 pilot project, unless it makes its way to a stage 3
9 where you are going to include a large-scale or some other
10 in your activities, you will not be providing the data, the
11 research, all that was undertaken in phase 2 pilot
12 projects? And it's in the context of a Board proceeding
13 you are making things public; am I correct?

14 MR. TROFIM-BREUER: Yes, you are correct.

15 MR. RUBENSTEIN: So then is there a reason why you
16 would not be willing -- or I'm asking. Would you be
17 willing to provide for any approved -- since ratepayers are
18 paying for phase 1 and phase 2 initiatives, that regardless
19 if it makes its way to a phase 3, regardless of a Board
20 proceeding, that you publicly disclose all the research
21 and, you know, data that you undertake from those studies?

22 MS. FLAMAN: So as we've proposed and as we've said
23 here, it is the nascency of stages 1 and 2 that are the
24 challenge and why we would not disclose them -- why we may
25 not have the data to share, quite frankly.

26 We are still exploring, formulating, conceptualizing
27 testing in stages 1 and 2 versus starting to tack it down
28 as it comes into stage 3.

1 MR. RUBENSTEIN: When we were talking earlier on about
2 the micro-generation, that there are nine that you are
3 seeking funding for in this application. So those are nine
4 projects, you are assumed to have data from those nine
5 projects, possibly results from those -- you know, lessons
6 learned or whatever else from that technology.

7 So would you be willing to provide that publicly,
8 irregardless if it moves to phase 3 or irregardless of some
9 Board proceeding later on where it's being disclosed?

10 This is a question that I will ask at the hearing. So
11 maybe the best way is if you could take it by the way of
12 undertaking to provide your position, and if there are some
13 reasons why you can't or it is not appropriate, that you
14 provide that in a more fulsome way.

15 MS. DJURDJEVIC: That will be undertaking JT1.31.

16 **UNDERTAKING NO. JT1.31: TO PROVIDE THE RESEARCH**
17 **AND/OR RELATED DATA FOR PHASE 1 AND PHASE 2 MICRO-**
18 **GENERATION INITIATIVES; AND IF NOT, TO ADVISE WHY NOT**

19 MR. RUBENSTEIN: Sorry, John.

20 **FOLLOW-UP QUESTIONS BY DR. HIGGIN:**

21 DR. HIGGIN: John, this is Roger Higgin. I would just
22 like to add-on to Mark's one, because he doesn't like
23 people adding to them, but another one.

24 Would Union confirm that as part of its other -- and
25 all of its R&D technology development programs that it
26 retains all of the intellectual property related to those
27 developments and will not make that available to others?
28 That is usually also in -- a subject might include the

1 other party that is part of that development, so that that
2 is all retained -- intellectual property is retained by the
3 party -- funders, party, meaning Union, and if in this
4 case, the micro-generator technology company will retain
5 all of that.

6 MS. FLAMAN: So that's -- we would take that away as
7 an undertaking to confirm and -- the position for the...

8 DR. HIGGIN: Very well.

9 MS. DJURDJEVIC: That is JT1.32.

10 **UNDERTAKING NO. JT1.32: TO CONFIRM THE POSITION THAT**
11 **UNION AND/OR A MICRO-GENERATOR RETAINS THE**
12 **INTELLECTUAL PROPERTY RELATED TO THOSE DEVELOPMENTS**
13 **AND WILL NOT MAKE THAT AVAILABLE TO OTHERS.**

14 DR. HIGGIN: Thank you.

15 **CONTINUED QUESTIONS BY MR. WOLNIK:**

16 MR. WOLNIK: Thanks, Roger.

17 So my final question is on power to gas, and I think
18 in -- again on the Staff 21 and stage 2 you talk about
19 completion of this road map and monitoring and purchased
20 power to gas -- gas pilot project and feasibility
21 assessment and potential demonstration concepts.

22 My understanding is Enbridge is quite advanced in
23 their power to gas project, so why is it -- I mean, you
24 want \$100,000 to, it seems, piggy-back on some of what
25 Enbridge is doing. Wouldn't it be much more efficient to
26 have one company do all the work rather than split it up
27 into two?

28 MR. TROFIM-BREUER: Today's proceeding, it's about the

1 2018 Union Gas compliance, cap-and-trade compliance plan.
2 As such we have prepared ourselves for that. We are, for
3 all intents and purposes, even -- you know, there is a
4 MAADs application going on right now, but until such time
5 we are still two independent utilities -- I haven't
6 completed.

7 MR. WOLNIK: Sorry.

8 MR. TROFIM-BREUER: So that's an aspect that is
9 actually important to know.

10 And then the other aspect is, as we've indicated, we
11 are actually working with, you know, maintaining
12 information with Enbridge. Enbridge is, indeed, a lot more
13 advanced than we are in that technology, and that's great,
14 actually. What we said we are going to do is actually
15 develop a road map for specific application in Union Gas's
16 franchise. Both franchises are different, and there are
17 certain elements that are specific to this franchise that
18 are actually pertaining to our ask.

19 MR. WOLNIK: Can you expand on that? What are the
20 differences?

21 MR. TROFIM-BREUER: Well, for example, if you are
22 thinking about the -- not necessarily from a power to gas,
23 but if you are looking at the -- if you are looking at the
24 franchise differences, we're more rural, we have a lot more
25 transmission lines. There might be other -- we're looking
26 at opportunities where this technology could be used to
27 take excess electricity and inject it in our pipelines, and
28 that may happen -- it's potentially better suited to happen

1 in today's Union Gas's franchise, as opposed to in a more
2 overrule (sic) environment.

3 There are certain differences that we are at the
4 beginning of understanding and we think a road map that
5 were just to complementarity (sic) of both franchises, it
6 is actually in the best interest for implementation of this
7 technology.

8 MR. WOLNIK: I think if I understood what you are
9 saying then, you are -- given that you are still part of
10 this MAADs application and you have filed these or you have
11 prepared these independently, there is some duplication
12 then of effort, and from a hydrogen to gas project in
13 particular.

14 MR. TROFIM-BREUER: No, there is no duplication of
15 effort. What we're looking at is more from a study --
16 early stage perspective in terms of the Union Gas's
17 franchise, and we're, in order to make sure that there is
18 no duplication, that's why we are actually connected with
19 Enbridge Gas Distribution to ensure that we understand
20 where their project is going.

21 MR. WOLNIK: Well, you've indicated you are going to
22 monitor here, but how is -- in terms of this feasibility
23 study, I guess I'm still struggling to understand how it is
24 going to be different than what Enbridge is already doing
25 and that you would derive value from it and customers would
26 derive value.

27 MR. TROFIM-BREUER: As indicated, this is more about
28 the pre-feasibility in Union Gas's franchise at this point.

1 It is not necessarily about -- and in the context of making
2 sure that there is no redundancy, that's what we are trying
3 to do with this feasibility study at this point.

4 MR. WOLNIK: Thank you. Those are my questions.

5 MS. DJURDJEVIC: Thank you, Mr. Wolnik.

6 Next on our schedule is Consumers Council, so...

7 So Ms. Girvan, you will be about 15 minutes? So can
8 we go --

9 MS. GIRVAN: Sure. I just wondered if the court
10 reporter wanted a break, that's all.

11 MS. DJURDJEVIC: Oh. Can we go another 15 minutes, or
12 -- okay. So let's do that and then take a break.

13 **QUESTIONS BY MS. GIRVAN:**

14 MS. GIRVAN: All right. I just had a few
15 clarification questions.

16 The first is, so the RNG subsidy, it's paid for the
17 government, that funding is coming from the Green Ontario
18 Fund? Sorry, I can't --

19 MS. NEWBURY: Can I just ask you to speak into your
20 microphone?

21 MS. GIRVAN: Yeah, I don't know that it is working
22 properly, but...

23 Okay. Sorry, can you hear me now? Is that better?

24 MS. NEWBURY: Thank you.

25 MS. GIRVAN: Okay. So is the RNG subsidy that is
26 coming from the government, is that from the Green Ontario
27 Fund?

28 MS. FLAMAN: It is my understanding those funds are

1 from CCAP, not the Green Ontario Fund, per se.

2 MS. GIRVAN: Okay, because I think we were looking at
3 the interrogatory earlier about the RNG program, and it
4 said Green Ontario --

5 MS. FLAMAN: That is a -- yeah, that is a correction.
6 When we said GreenON, it is CCAP funding that --

7 MS. GIRVAN: Okay. That's -- thank you very much.

8 So if you could please turn to SEC number 15, please?
9 And this refers to the administrative costs. So just to be
10 clear, you are seeking recovery in this case of the 2016
11 amounts; is that correct?

12 MS. FLAMAN: Yes.

13 MS. GIRVAN: Okay. So for Union, that amount is
14 2.2 million. It's in the -- it's on page 2 of 7 in that
15 response. I just want to confirm what you are seeking --

16 MR. DANTZER: That's confirmed, yes.

17 MS. GIRVAN: Okay. Thank you. Now, what about the
18 2017 costs?

19 MR. DANTZER: There's no specific request related to
20 the 2017 costs.

21 MS. GIRVAN: Okay. So when will you be seeking
22 recovery of those costs?

23 MR. DANTZER: In a future proceeding. I can't say
24 specifically.

25 MS. GIRVAN: So it will be in your 2017 deferral and
26 variance account clearance proceeding?

27 MR. DANTZER: At this point I can say it could be. I
28 don't think a final determination has been made in terms of

1 when we would seek disposition of the 2017 actual costs.

2 MS. GIRVAN: Okay. So with respect to the relief you
3 are asking from the Board in this case, you are not asking
4 them to comment on the 2017 costs? No approval is being
5 sought at all?

6 MR. DANTZER: That's correct. No approvals for 2017.

7 MS. GIRVAN: Okay, all right, thank you.

8 And what are you seeking from this Board in terms of
9 the 2018 costs?

10 MS. FLAMAN: So we are seeking a determination that
11 the cost consequences of the 2018 compliance plan are just
12 and reasonable, and that includes approval of up to
13 2 million in cost consequences associated with the low
14 carbon initiative fund.

15 And then we're also seeking, and as you've noted,
16 final approval of disposition of the 2016 balance.

17 MS. GIRVAN: Sorry to -- I'm not sure I completely
18 understand.

19 So there's a \$6 million budget for Union for 2018,
20 2 million of which is the low carbon initiative fund. And
21 you're only seeking approval from this Board of that
22 particular fund in this proceeding?

23 MS. FLAMAN: No. To clarify, we're seeking
24 determination that the cost consequences of the 4 million,
25 I guess, and then the 2 million which would constitute the
26 6 million, are just and reasonable.

27 MS. GIRVAN: So you want the Board to approve this
28 budget for 2018?

1 MS. FLAMAN: We want the Board to deem it just and
2 reasonable.

3 MS. GIRVAN: Okay. All right. Thank you. If you
4 could turn down a little bit further in the same
5 interrogatory on page 3 of 7, I just want to be clear on
6 what this chart is telling me.

7 So I think what it's saying is for Union, at the end
8 of 2018, you will have 12.5 incremental FTEs essentially
9 related to cap-and-trade. Is that what that's telling me?

10 MR. DANTZER: That's correct.

11 MS. GIRVAN: Okay, thank you. So the combined for
12 Union and Enbridge would be 20.5 million -- 20.5 FTEs,
13 that's what it says.

14 MR. DANTZER: The 8 plus 12 in the chart. Eight plus
15 12 and a half equals 20.5, correct.

16 MS. GIRVAN: Okay. If you could please turn to Board
17 Staff 21? If you can turn down -- so if we look at the
18 chart for 2018. I'm not sure what page it's on.

19 So this is your breakdown of proposed LCIF funding for
20 2018. Could you tell me, for each of these, what the
21 current status of these are, like what the current status
22 is?

23 MR. TROFIM-BREUER: Absolutely. So, on the first
24 initiative, building skins, we had indicated that we are
25 going to work with the MaRS Advanced Energy Centre for a
26 workshop that would help us identify what a building
27 envelope would look like for a system retrofit.

28 That workshop took place March 8th, if I recall

1 correctly, and we're in the process of getting the final
2 report of that workshop.

3 In that context, our plan is to use those results to
4 actually put together an RFP and go out there and work with
5 different technology providers that might have an interest
6 in developing such a solution.

7 MS. GIRVAN: Okay, did MaRS contribute to the cost of
8 this initiative?

9 MR. TROFIM-BREUER: Yes, they were working with us.
10 Well, they were -- let me answer the question again. When
11 you say contribute, what do you mean by that?

12 MS. GIRVAN: Financially contribute.

13 MR. TROFIM-BREUER: No, they haven't contributed
14 financially to that, but in-kind; so the preparation of the
15 workshop, the design of the workshop, everything else that
16 was done.

17 MS. GIRVAN: And was \$100,000 actually spent?

18 MR. TROFIM-BREUER: No, that's -- as you can see there
19 in the initiative, we're looking at not only the actual
20 workshop, but we are also looking at project initiation,
21 the beginning of the execution, measurement and
22 verification. So that includes also the design of the
23 building skin's RFP and executing that and everything else.

24 MS. GIRVAN: What's been spent to date then?

25 MR. TROFIM-BREUER: I wouldn't know on top of my head.
26 I'd have to go and look at that.

27 MS. GIRVAN: What I will be asking is for each of
28 these, if you can tell me what's been spent to date in

1 2018.

2 MS. DJURDJEVIC: Do we want to then do an Undertaking?

3 MR. TROFIM-BREUER: Yes.

4 MS. DJURDJEVIC: So that's JT1.33 and to it's to
5 advise what has been spent to date for each of the
6 categories listed on whatever this document is.

7 **UNDERTAKING NO. JT1.33: TO ADVISE WHAT HAS BEEN SPENT**
8 **TO DATE FOR EACH OF THE CATEGORIES IN THE BREAKDOWN OF**
9 **PROPOSED LCIF FUNDING FOR 2018 PROVIDED WITH BOARD**
10 **STAFF 21**

11 MS. GIRVAN: Did you look at whether -- yeah, it's for
12 all of the projects in 2018. Thank you.

13 Did you look at whether other entities were doing this
14 types of initiatives with respect to the list for 2018?

15 MR. TROFIM-BREUER: I'm sorry, could you repeat the
16 question?

17 MS. GIRVAN: Did you consider whether other entities
18 were undertaking the same type of initiatives that are set
19 out in that chart?

20 MR. TROFIM-BREUER: Yes, to some extent, absolutely.
21 Can you define other entities? Like other entities in
22 Ontario?

23 MS. GIRVAN: Yes, where other people are undertaking
24 the same type of initiatives. Did you -- before you
25 decided to pursue these, did you consider whether other
26 entities were pursuing them as well?

27 MR. TROFIM-BREUER: It would depend on the -- it would
28 depend on the initiative in and of itself. So if you are

1 thinking about micro-generation, there are other
2 jurisdictions that are doing that; in the States, they are
3 doing that as well.

4 So it would depend on the technology. But generally
5 speaking, there is a question -- as we're looking at the
6 selection of the initiatives, yes, there is a question
7 about is there anybody else doing it.

8 MS. GIRVAN: And did you seek provincial or federal
9 funding for these initiatives?

10 MR. TROFIM-BREUER: No, not at this point.

11 MS. GIRVAN: Why not?

12 MR. TROFIM-BREUER: Because the nature of our
13 technology -- the technologies that we are looking at is
14 really -- is long-term. It is really about identifying
15 future carbon abatement opportunities and in certain cases,
16 it is too early to call.

17 The first question that needs to be answered is would
18 these initiatives make sense in Ontario. How would they
19 make sense in Ontario? Demonstrate them here and once
20 we've got a better understanding as they relate to the
21 Ontario jurisdiction, then we can start thinking about in
22 what shape, way or form could we advance those.

23 And sometimes it may require government funding. In
24 other situations, maybe not. I don't know.

25 MS. GIRVAN: So in 2018 with respect to this list, you
26 didn't seek any funding from the provincial government?

27 MR. TROFIM-BREUER: No, we haven't.

28 MS. GIRVAN: Could you please turn to Board Staff

1 number 25? There is a paragraph down below that refers to
2 net metering. Could we just scroll down?

3 MR. TROFIM-BREUER: Yes.

4 MS. GIRVAN: In C, and I didn't quite understand what
5 this meant and I didn't understand what relief you are
6 asking from the Board with respect to net metering in this
7 case.

8 [Witness panel confers]

9 MR. TROFIM-BREUER: We are not seeking any relief for
10 net metering. It was meant -- simply meant to say that
11 there are activities happening there, but we are not taking
12 seeking any relief.

13 MS. GIRVAN: So you are not seeking funding?

14 MR. TROFIM-BREUER: No.

15 MS. GIRVAN: With respect to Staff 28, please, if you
16 could turn that up? Can you tell me who's on the cap-and-
17 trade advisory committee and the cap-and-trade governance
18 committee?

19 MS. NEWBURY: The cap-and-trade advisory committee is
20 a cross functional group that represents all different
21 departments within the organization, generally at a manager
22 or director level. So representation is by all of the
23 groups that touch cap-and-trade, so finance, our
24 environmental health and safety organization. I sit on
25 that committee. Ms. Flaman sits on that committee. I'm
26 trying to think of who else. I don't have an actual list,
27 but it is all the different departments that touch the cap-
28 and-trade file in some way.

1 MS. GIRVAN: Okay, and what about the cap-and-trade
2 governance committee?

3 MS. NEWBURY: Oh sorry, the government -- no, they --
4 we -- they do not sit in on a regular basis. However, to
5 the extent that we had issues that we can wanted to discuss
6 with them, generally speaking when it comes to government
7 initiatives specific to cap-and-trade, they are let out of
8 the cap-and-trade department, and Ms. Flaman would be
9 representing that group.

10 MS. GIRVAN: All right. Thank you. Now, just one
11 quick last question with respect to RNG, and sorry to keep
12 going back to this. So the proposal is you pay -- let's
13 say you have a contract with a supplier. You pay that
14 supplier a certain contracted price for the supply
15 throughout a term of ten years; is that correct?

16 MS. NEWBURY: That's correct.

17 MS. GIRVAN: Okay, the government pays the actual
18 difference. This is a question: Does the government pay
19 the actual difference between the cost of gas in your
20 portfolio and that contracted price?

21 MS. NEWBURY: So your question is the portion that the
22 government funding is paying?

23 MS. GIRVAN: Yes.

24 MS. NEWBURY: Is the delta between the, I'll call it
25 the negotiated price for the RNG contract, but it's really
26 the RFP, the outcome from the RFP, so if you deduct from
27 the RFP price that we accept from a producer, the carbon
28 forecast price, and subtract, as well, the long-term gas

1 cost price, then the remaining piece is what we would
2 allocate government funding to support.

3 MS. GIRVAN: So what are the implications if the
4 actual carbon price and the actual cost of gas is
5 different?

6 MS. NEWBURY: So the reason that we're working with a
7 forecasted cost for both gas and for carbon goes to your
8 earlier point, which is: We need to make sure that there
9 is sufficient funding to support each of the contracts that
10 we enter. And so to the extent that we use variable
11 pricing, that's very difficult to do, and so in fixing each
12 of the component costs they become very predictable, and
13 again, we can allocate the funding in such a way that we
14 know that we have sufficient funding to cover the contract
15 for the term.

16 MS. GIRVAN: So it's like having a long-term gas
17 contract in place.

18 MS. NEWBURY: Yes, it is.

19 MS. GIRVAN: Okay. All right. Thank you. Those are
20 my questions.

21 MS. DJURDJEVIC: Thank you. Let's break for 15
22 minutes and come back at four o'clock.

23 --- Recess taken at 3:45 p.m.

24 --- On resuming at 4:04 p.m.

25 MS. DJURDJEVIC: Welcome back, everyone. What we have
26 left on the schedule in terms of estimated time would take
27 us an hour and a half to get through, and I and the
28 reporter and whoever else is available can stay until 5:30.

1 But we're hoping that we can move things along.

2 To that end, we know that some of the other
3 intervenors have much reduced their time estimates, so we
4 are going to go finish them first, and then we're going to
5 go to BOMA, which has the longer period, but nevertheless
6 should have a good 45 minutes at least left for Mr. Brett's
7 questions.

8 So with that, let's go to Energy Probe. Mr. Higgin,
9 you're on.

10 **QUESTIONS BY DR. HIGGIN:**

11 DR. HIGGIN: Good afternoon, Roger Higgin for Energy
12 Probe.

13 My questions are in two main areas. They are all
14 administrative costs. I'm glad to say my RNG questions
15 have been asked, so they've gone.

16 So they are in terms of administrative costs, and I
17 would suggest we look at SEC 15 as a segue into the areas
18 that I'm going to look at.

19 I'm specifically looking at the table on page 2.

20 We've had this up before, and it's just helpful to
21 position what we're looking at here in terms of costs as
22 they were defined for 2018.

23 So my two areas that I am going to ask questions about
24 are the staffing resources line which, as you see for
25 Enbridge, has a cost estimate of 1.5 million, and then
26 Union an estimate of 2.6 million.

27 And then the other area I'm going to ask questions
28 about as follow-ups to our IRs -- and I'll give you the IRs

1 in a minute -- will be the LCIF. That's the line down
2 below the low carbon initiative fund, and as you see, is
3 \$2 million for Enbridge and \$2 million for Enbridge
4 proposed for two-18. Those are two areas.

5 Let's start with the LCIF line, and I'll ask if you
6 can turn to Energy Probe interrogatory EP 8.

7 So as you can see, this question asked specifically
8 the fact that both utility are asking for 2 million dollars
9 new money for 2018 for the LCIF. That's what this question
10 asks about.

11 And if we can look at the response to that, you push
12 us off to Board Staff 14A; that's the response that's
13 stated there. But we did look at 14A, but didn't really
14 cover the answer. Perhaps it would have been better to also
15 mention Staff 21, which we've been at also.

16 So I come back to my question, though. So the
17 question we have is what has been done to coordinate both
18 the collection and use of the 2 million dollars funds each
19 in EGD and Union's low carbon incentive fund in two-18. That
20 was the question.

21 If you look at the response to Staff 14, it was the
22 same response as provided earlier: We aren't amalgamated
23 yet, so therefore we don't have a plan, summarizing. Am I
24 correct?

25 MR. TROFIM-BREUER: Yes, that is correct.

26 DR. HIGGIN: So the question is, first of all, please
27 confirm that your answer in this technical conference is
28 that like other compliance and admin costs, nothing will

1 happen until Union and EGD have approval of the
2 amalgamation, as far as those costs are concerned?

3 MS. FLAMAN: Why we stated and, as you've noted, we
4 have not amalgamated yet. So at this time, it would be
5 premature for me to comment on EGD's LGIF and the status of
6 it.

7 What I can confirm is that we are seeking approval as
8 part of this hearing for the cost consequences associated
9 with our compliance plan, and with approval of -- for
10 approval of up to two million in cost consequences as low
11 carbon initiative fund.

12 DR. HIGGIN: Thank you. So my next question is what
13 activities are Union and Enbridge doing jointly under the
14 LGIF -- including, for example, the seminar that you
15 mentioned -- with respect to skins, for example?

16 So what activities are you jointly doing to reduce and
17 coordinate those activities in 2'18?

18 MR. TROFIM-BREUER: Well I guess it would depend on
19 the -- which initiative you are referring to specifically.
20 If you are talking about the seminar or the work shop that
21 I was mentioning a little bit earlier, in that workshop
22 both members from Enbridge Gas Distribution and Union Gas
23 were represented.

24 DR. HIGGIN: Who sponsored the workshop?

25 MR. TROFIM-BREUER: We did, so Union Gas sponsored the
26 workshop.

27 DR. HIGGIN: So it wasn't sponsored jointly, 50-50?

28 MR. TROFIM-BREUER: No.

1 DR. HIGGIN: Okay. So the question that I have as a
2 follow-up, we've heard your answers, is this. Will the
3 companies claim the reduction in compliance admin costs in
4 2'19, including the LCIF cost as part of post amalgamation
5 synergies?

6 You know of the term synergies, post amalgamation?
7 That's the question I'm asking. Will you claim those costs
8 and the resulting reduction as part of synergies?

9 MS. FLAMAN: And as we've noted at this time, it would
10 be premature to comment on synergies.

11 We've requested the Board's approval to amalgamate
12 effective January of 2019. We continue to operate as
13 separate entities until all necessary approvals are
14 received, and only after the decision is made to proceed
15 with amalgamation will a detailed integration plan be
16 developed.

17 DR. HIGGIN: Thank you for that answer. We'll answer
18 ask that specific question in the amalgamation hearing
19 about synergies, okay? Just to give you the heads-up.

20 Now I'd like to go to the other line that was about
21 staffing resources and costs associated with them. I can
22 point you to one of our IRs to go through this, and it is
23 EP 10, please, if you could turn up EP 10.

24 The question is -- there's a little typo in there that
25 we missed out the bid for Enbridge. It should have said 8,
26 but why does Union require more than 50 percent more of
27 FTEs -- that's 12.5 versus 8, to clarify -- than Enbridge
28 to carry out a similar level of cap-and-trade compliance

1 activities?

2 So the response is, as you see here, please take a
3 look at B.SEC.13 for an explanation. So if we could turn
4 that up, please, and look at part C of that.

5 So in part C it simply says that your forecast two-18
6 FTE requirements reflect the anticipated incremental level
7 of effort that you expect to require across the
8 organization, et cetera. Okay? So that's what the
9 response says.

10 So the questions I have now to follow up on that, so
11 looking back to remember the question was, why the
12 difference? That's the question. Why is the difference?
13 So the first question I have is: Are you prepared to take
14 a look at what those differences are and to identify those
15 differences on the record for us, between you and EGD?

16 MS. DJURDJEVIC: Would this be done by way of an
17 undertaking as it involves --

18 DR. HIGGIN: Yes --

19 MR. DANTZER: No, no, I'd like to answer the question,
20 actually.

21 MS. DJURDJEVIC: Okay.

22 DR. HIGGIN: They decline.

23 MR. DANTZER: I think the reference to start -- the
24 reference would actually be more appropriate to point to
25 Exhibit B, SEC 15, in terms of --

26 DR. HIGGIN: You would turn that one up, please.

27 MR. DANTZER: And it would be page 3 of 7.

28 So that -- I think we've done a better job of

1 addressing the question in EP 10 in this spot.

2 DR. HIGGIN: Yes, it would have been fortunate if
3 you'd actually told us that in your response. However, let
4 me look at this one and see if it answers the question. If
5 you could just pull up the table.

6 I still don't think it answers the question, so we're
7 going to ask by -- in here: Can you please provide a copy
8 of the staffing plan for two-17/'18 with a detailed
9 breakdown for the 12.5 FTEs, including their functions, a
10 breakdown of their total compensation costs for those 12.5
11 positions? Can you provide the staffing plan and the
12 functions and everything else that drove those resource
13 requirements and file that, please?

14 MR. DANTZER: I can actually provide a reference to
15 the pre-filed evidence where that information is.

16 DR. HIGGIN: So there is a staffing plan?

17 MR. DANTZER: There is an outline of the FTE roles and
18 responsibilities under the cap-and-trade compliance plan.

19 DR. HIGGIN: I don't think necessarily that will
20 answer the question. What we're trying to get here is
21 quite clearly understand why you need an additional
22 1 million in resources relative to Enbridge. It is as
23 simple as that.

24 MR. DANTZER: Well, look, I'm here to speak to Union's
25 compliance plan.

26 DR. HIGGIN: Yes.

27 MR. DANTZER: So what I can say is we have really two
28 criteria when we evaluate incremental cost under cap-and-

1 trade. Number one, that the work required is incremental
2 to what's included in rates, and number two, that the
3 activities support Union's compliance plans and overall
4 climate-change initiatives.

5 So that's the approach we've used under the compliance
6 plan, and that's what I can speak to in terms of this
7 proceeding. I can't speak to Enbridge's staffing --

8 DR. HIGGIN: No --

9 MR. DANTZER: -- and their FTE --

10 DR. HIGGIN: In doing that did you look at the word
11 called "benchmarking"? Have you heard that word,
12 "benchmarking"? So did you benchmark your costs relative
13 to Enbridge?

14 MR. DANTZER: I would refer to our response in Energy
15 Probe 10, part B.

16 DR. HIGGIN: Yes.

17 MR. DANTZER: And we refer to -- I'll wait until it's
18 pulled up.

19 DR. HIGGIN: Well, I heard that one about California.
20 I'm just asking specifically about benchmarking relative to
21 your neighbour here, Enbridge. That's all I'm asking.

22 So, fine, if the answer was you did not specifically
23 benchmark your costs to Enbridge, that's fine. Just answer
24 yes. That's fine. It's on the --

25 MR. DANTZER: We did not benchmark relative to
26 Enbridge.

27 DR. HIGGIN: Okay. Thank you very much. So I'll now
28 move on to one last area here. It is only a very short

1 question. And that's on EP 9. It is a follow-up to EP 9.
2 Okay. And it is a simple question.

3 If you look at the response in part -- you've sent us
4 to Staff 21F, and if could you pull up that. So you sent
5 us to 21F of Board Staff.

6 And we will just briefly summarize the response here.
7 Let me get to it. There. We see at the bottom there it
8 says F. Keep going down. All about the other
9 jurisdictions. Thank you for scrolling down. Hard work.

10 So the thing we're interested in is the last bullet.
11 As we know, all know and love Concentric Energy Advisors.
12 We thought we should like to see what they have to say
13 about this, so would you please file that document? If
14 there is any restrictions on doing so, obviously let Board
15 Staff know, but otherwise we'd like a copy of that report,
16 please. Okay, undertaking, please?

17 MS. DJURDJEVIC: That's JT1.34.

18 **UNDERTAKING NO. JT1.34: TO FILE THE DOCUMENT REFERRED**
19 **TO IN IR BOARD STAFF 21F**

20 DR. HIGGIN: Thank you. Those are my questions.

21 MS. DJURDJEVIC: Thank you. Moving now on to VECC.

22 Ms. Grice, you have some questions.

23 **QUESTIONS BY MS. GRICE:**

24 MS. GRICE: Yes, good afternoon, panel. Shelly Grice
25 representing VECC --

26 MS. DJURDJEVIC: Microphone, microphone. Something...
27 Is it...

28 MS. GRICE: I'll try to sit closer. Can you hear me?

1 Okay. I just have a couple of quick questions.

2 **QUESTIONS BY MS. GRICE:**

3 If we can turn to Board Staff IR No. 21. Oh, yeah,
4 it's up there. Part A, please. In this interrogatory
5 there is some discussion about the abatement construct and
6 the initiative funnel. And it says in the second paragraph
7 that:

8 "In order to facilitate the development of ideas
9 through the initiative funnel Union has developed
10 rigorous selection and project -- a rigorous
11 selection and project management approach."

12 And then the beginning of the third paragraph it says:

13 "Selection starts with a market scan of emerging
14 technologies, enabling the identification of
15 potential technologies and services aligned with
16 the guiding principles."

17 And I just wanted to go back to the evidence if we
18 can, please, at Exhibit 3, tab 4, page 45. And at Figure 4
19 it shows the abatement study, project approach, and then
20 the paragraph underneath that -- and this is related to the
21 facilities abatement projects, and it says at line 7:

22 "Using this approach the project team identified
23 approximately 70 opportunities that were
24 evaluated as potential facilities abatement
25 projects."

26 And then at line 11 it says that:

27 "A subset of nine potential facility abatement
28 projects remained for further evaluation."

1 And I just wondered, do you have the same number that
2 corresponds to your -- sorry, that corresponds to the
3 customer abatement programs? Do you have a number of ideas
4 or concepts that you looked at before you arrived with the
5 list of projects for 2018? Is there a similar number?

6 MR. TROFIM-BREUER: So can you please clarify the --
7 can you please clarify the question when you talk about the
8 same number? So do you mean do we have exactly the same
9 number of customer abatement and facilities abatement
10 initiatives?

11 MS. GRICE: Well, I'm looking at you for your
12 facilities abatement. You started off you had 70
13 opportunities, and you ended up with nine.

14 MR. TROFIM-BREUER: Right.

15 MS. GRICE: So when you go over to the customer
16 abatement projects is there a starting number where you
17 looked at X number of projects and you end up with, I don't
18 know, 12 or something in your list?

19 MR. TROFIM-BREUER: Thanks for the clarification. No,
20 we didn't start it the same way, simply because when we are
21 looking at facilities abatement, we're looking at more --
22 actually let me back up. On the customer side, what we
23 started first was because it's new -- it's a new area of
24 expertise that we are developing, we first started by
25 understanding what options might be out there, how we would
26 go about it, what would be the selection criteria and
27 everything else.

28 So we didn't necessarily to start with identify, you

1 know, the same like with the facilities abatement. There
2 are a number, but we don't necessarily have a specific --
3 it wasn't the same. It is not comparable.

4 MS. GRICE: So I'm just wondering, is it -- so there
5 isn't a list available of some market research that did you
6 and some potential customer abatement technologies that
7 were considered and rejected? Is there a list of something
8 like that that exists?

9 MR. TROFIM-BREUER: So there is no list per se. There
10 are certain -- I haven't captured the list on that because
11 we are at the beginning. We're starting that process for
12 customer facilities, you know, because it is early stage
13 technology. We've got internally on the -- some -- a
14 couple of elements we knew we were not going to pursue,
15 because it was clear right from the start that it was not
16 going to be something that we wanted to pursue.

17 But I don't have necessarily a list. As we are
18 evolving, probably it is going to end up in a funnel type.

19 MS. GRICE: Just some background that just shows what
20 you looked at, and then how you got from that point to the
21 programs that you have for 2018.

22 MR. TROFIM-BREUER: So the abatement construct was --
23 sorry. So can you clarify the question in terms of -- so
24 would you -- are you expecting an exactly similar list like
25 what facilities abatement? Is that what you are talking...

26 MS. GRICE: Just whatever you have that would be
27 comparable.

28 MR. TROFIM-BREUER: It can't be -- it is not

1 comparable. We don't have an analysis like this.

2 MS. GRICE: Okay, thank you. I just have one last
3 quick question related to LIEN number 4. In this
4 interrogatory, they asked if you had established a success
5 rate of communication among low income consumers. And with
6 some explanation, you provided table 1 which shows that
7 customer awareness has improved approximately 14 percent
8 over wave 1 and wave 2.

9 And what I'm trying to understand is based on those
10 results, is there any correlation that you can provide me
11 with on how those results translate into emission savings
12 for 2016, 2017 and then your forecast for '18?

13 Can you draw a relationship from that table to your
14 results? This would be related to low income offerings
15 only.

16 MR. DANTZER: Yes, I'm not aware of any direct
17 relationship between the study referenced in the IR
18 response and any attributable emissions reductions.

19 MS. GRICE: Thank you. Those are my questions.

20 MS. DJURDJEVIC: Thank you. So the OSEA
21 representative is here and has a couple of questions.

22 **QUESTIONS BY MR. WOON:**

23 MR. WOON: Good afternoon, it's Robert Woon. I just
24 wanted to get back to some of the abatement discussion we
25 had earlier this morning. Most of our questions were
26 answered, but we have just one outstanding question.

27 It refers to OSEA interrogatory 7. You don't really
28 need to pull it up, because in response, Union directed us

1 to Staff interrogatory 19. So if we could have that pulled
2 up?

3 In the second bullet point, the paragraph starts "As
4 outlined in Union's application". So I just wanted to get
5 some clarification between two of Union's statements. This
6 is one of Union's statements, where it says:

7 "For opportunities that may not be cost-effective
8 within DSM, Union will pursue these through a
9 climate change action plan and GreenON..."

10 Now, I want to take you to Staff Interrogatory No. 31.
11 Support Staff talked about this earlier, but more in terms
12 of the commercial and industrial. I wanted to kind of talk
13 about the residential.

14 So in response to Staff interrogatory 31, Union
15 identified that there's basically kind of three categories
16 of residential abatement measures that were identified in
17 the MACC.

18 I want to focus on the third one. It's called
19 assessed and not -- basically they weren't priorities. And
20 in that second paragraph, that's where I want
21 clarification, where it sets starts: "These measures have
22 either been denied by the OEB within the current or
23 previous DSM Frameworks," and then cite they weren't
24 priorities because they didn't really meet the TRC cost-
25 effectiveness test.

26 So Union states in this that these measures are to be
27 reassessed during the DSM Framework, and I wanted
28 clarification based on that earlier statement that we

1 looked at in Staff Interrogatory No. 19. I want to
2 understand, since Union is saying that these measures don't
3 really meet the TRC test that's in the DSM Framework, but
4 that they should be reassessed anyways, I want to know why
5 because obviously the MACC has highlight that some of these
6 are cost-effective and mostly because they are considering
7 the avoided carbon costs.

8 So why would Union not consider these in the cap-and-
9 trade framework, since we already know that they don't meet
10 the DSM Framework cost-effectiveness test?

11 MR. GINIS: So these measures listed here, and as
12 described in that paragraph on page 4, have various reasons
13 why they are not included in the DSM program currently.

14 Some of them have been rejected, as you identified.
15 So for example, low-flow showerheads as part of our ESK
16 Kit; that was rejected by the Board in its decision on the
17 2015 to 2020 DSM plan.

18 Essentially what we're saying, and I believe this is
19 -- I'm attempting to answer your question. These measures
20 should continue to be pursued through the DSM Framework and
21 our position is that where it is not approved by the Board
22 in the DSM Framework, it would not -- it would not be
23 prudent to pursue them through this framework, just two
24 years after the Board had made a decision on those things.

25 Now, you also referenced GreenON and in some cases,
26 some these measures are not cost-effective. The DSM
27 Framework typically tries to pursue cost-effective
28 measures. In some cases, we have market transformation

1 programs which are a lot broader that wouldn't be cost-
2 effective. But for these resource acquisition type
3 programs that are not cost-effective and therefore not
4 applicable to be pursued through the DSM Framework, we are
5 simply just identifying -- the GreenON funding which I had
6 mentioned before, we expect to be between 2 and 4 billion
7 dollars from 2017 to 2020, that given that the government
8 doesn't have a DSM Framework and similar types of
9 restrictions, should they be interested in pursuing them
10 through that funding, that that would be the venue to
11 pursue that.

12 MR. WOON: Just to follow up there, I understand they
13 weren't approved in the DSM and one of the reasons you cite
14 is because it doesn't meet the cost-effectiveness test
15 under DSM. But my point here is that DSM doesn't consider
16 the avoided carbon costs; correct?

17 MR. GINIS: That's correct.

18 MR. WOON: So some of these could be cost-effective in
19 cap-and-trade, because they have that additional benefit
20 that should be considered.

21 MR. GINIS: Well, so the TRC test in the DSM Framework
22 does include a 15 percent non-energy adder. That is not an
23 exact comparison to the cost of carbon, but it's meant to
24 reflect the potential cost of carbon and other societal
25 benefits.

26 So the fact that it wouldn't have passed through TRC
27 plus, although the cost of carbon isn't directly in there,
28 it should be pretty similar to that.

1 MR. WOON: Okay. We can move on. My only other
2 question is -- I think it was covered in SEC's undertaking
3 previously, but for the LCIF fund, I think SEC asked for
4 all the memos and work plans, I believe, to support some of
5 the funding you're looking for.

6 We're just wondering if we can get a better breakdown
7 of those costs that you list in that table, in terms of,
8 you know, what's staff cost, what, you know, capital cost
9 that's been incurred.

10 MS. SEERS: I'm sorry, I was lost for a second there.
11 Can you take us back to what exhibit you are referring to?

12 MR. WOON: So the table is in Staff interrogatory 21,
13 the table with the proposed budgets that you are looking
14 for the 2018 LCIF. You have the estimates there for, for
15 example, building skins, 100,000, micro-generation, 192.

16 I believe SEC already asked for the work plans and
17 documents to support these numbers, but if those don't
18 exist, because it wasn't really clear on the evidence
19 earlier, but can we ask for a breakdown of these costs?

20 MS. SEERS: Our understanding is that there is no
21 further detail available beyond these figures.

22 MR. WOON: Sorry, is that -- that's the response is no
23 details? So these numbers were -- I want to know how these
24 were calculated, then.

25 MR. TROFIM-BREUER: So with respect to the initiative
26 that you've -- that have been identified that are currently
27 ongoing, we will provide an undertaking that is going to
28 show the year-to-date cost. That was the question that was

1 asked a little bit earlier, so how much of the \$100,000 has
2 been spent to date. That's what we're going to provide.

3 You seem to talk about capital cost and a number of
4 other costs at the same time, and we just want to note that
5 there might be some limitation to the level of information
6 we can provide, simply because it may not be available. So
7 we'll be able to say, you know, that's what's been spent,
8 but the level of detail may vary depending on what the
9 initiative is.

10 MR. WOON: Okay. Those are my questions.

11 MS. DJURDJEVIC: Okay, thank you, Mr. Woon.

12 I believe we had someone from the Low Income Energy
13 Network on the phone who had a couple questions. I don't
14 know if we still had --

15 MS. PETERSON: (Inaudible) Hello?

16 MS. DJURDJEVIC: Okay. You are going to have -- you
17 are on behalf of LIEN. If so, can you please speak up. We
18 are having a hard time hearing you.

19 MS. PETERSON: Hello. Hello, is that any better?

20 MS. DJURDJEVIC: We're working on it.

21 MS. PETERSON: Okay. I've got it up as high as I can
22 from my end.

23 MS. DJURDJEVIC: Sorry, and for the court reporter,
24 can you please state your name?

25 MS. PETERSON: Yes, this is Nicole Peterson, counsel
26 to LIEN.

27 MS. DJURDJEVIC: Thank you, Ms. Peterson.

28 **QUESTIONS BY MS. PETERSON:**

1 MS. PETERSON: All right. A number of my questions
2 have already been addressed, and so I just have a couple
3 for the panel. Please, could you turn to the Union
4 response to LIEN's first interrogatory.

5 All right. LIEN asked three different questions
6 marked (a), (b), (c). The first question concerns (a). We
7 requested a breakdown of Union's plan, including specific
8 measures employed and timing for implementation for Union's
9 home reno rebate offering through the Green Investment Fund
10 for 2018 and beyond. And in response Union provided
11 details on the expanded eligibility for participation, new
12 rebates, and increased rebate levels.

13 And my question is as follows: LIEN represents low-
14 income customers. Customers face different barriers when
15 they have low incomes to acquiring or accessing low-income
16 programs. For example, a rebate program requires a low-
17 income person to expend and then be reimbursed, and so we
18 were wondering how Union has considered barriers that low-
19 income consumers face to accessing their low-income
20 programs and if they have data on the same?

21 MR. GINIS: So in terms of our energy conservation
22 programs I would refer you to LIEN 6, where we describe the
23 low-income-specific programs. They are similar, so the
24 home weatherization offering is similar to the residential
25 home reno rebate offering, except as you described the home
26 reno rebate offering requires the homeowner to do
27 renovations and then they are provided with a rebate.

28 With our home weatherization offering for low-income

1 qualified customers they are eligible to have their home
2 weatherized at no cost, and it is provided as a package by
3 the utilities programs.

4 MS. PETERSON: Correct me if I'm incorrect. The home
5 weatherization program I understood was an offering for
6 persons who either were tenants or are -- sorry, they own
7 their home? Pardon me, they do not own their home.

8 MR. GINIS: So are you asking if the program is only
9 available to tenants as opposed to private homeowners?

10 MS. PETERSON: Yes, that's right.

11 MR. GINIS: Subject to check, I believe it's available
12 to private homeowners as well.

13 MS. PETERSON: Would you be able to get back to me on
14 whether that is in fact the case?

15 MR. GINIS: Yes, we could do that.

16 MS. PETERSON: Thank you. I have one further
17 question --

18 MS. DJURDJEVIC: I don't think we need an undertaking
19 for that. I think the response was that it does apply to
20 both subject to check. So -- oh. Fine, we can give an
21 undertaking. JT1.35.

22 MS. SEERS: No, I agree. I don't think we need an
23 undertaking. We'll check -- if that information is not
24 accurate we will correct it.

25 MS. DJURDJEVIC: Okay. That's fine.

26 **UNDERTAKING NO. JT1.35: TO CONFIRM WHETHER THE HOME**
27 **WEATHERIZATION PROGRAM FOR LOW-INCOME QUALIFIED**
28 **CUSTOMERS IS AVAILABLE TO BOTH RENTERS AND HOMEOWNERS**

1 MS. PETERSON: Okay. My second question is about the
2 home reno rebate, including retrofits for apartments and/or
3 highrises.

4 MR. GINIS: Sorry, what's your question?

5 MS. PETERSON: My question is about whether the home
6 reno rebate program includes retrofits or will include
7 retrofits for highrises or apartment buildings.

8 MR. GINIS: So on LIEN 6, the fourth bullet is the
9 multi-family offering, and so that is a low-income offering
10 that is available to social and assisted housing, as well
11 as market-rate low-income qualified tenants.

12 MS. PETERSON: Okay. And multi-family housing will
13 include the larger highrises and apartment buildings, not
14 simply sort of lowrise buildings?

15 MR. GINIS: Subject to check, that's correct, yes.

16 MS. PETERSON: Thank you very much. Those are my
17 questions.

18 MS. DJURDJEVIC: Thank you, Ms. Peterson.

19 So last on our list is Building Owners and Managers
20 Association, and Mr. Brett has the floor for the rest of
21 the day until 5:30.

22 MR. BRETT: Thank you very much.

23 Questions by Mr. Brett:

24 MR. BRETT: I think I will start with a couple of
25 questions on the Green Investment Fund program for your
26 residential sector.

27 That's a program that you -- is part of your
28 compliance plan for 2018 and 2017, right, in the sense that

1 it reduces the emissions that you need to seek allowances
2 to cover?

3 MS. FLAMAN: It's an incremental abatement that we
4 have considered as part of the 2018 compliance plan.

5 MR. BRETT: Could you speak into your microphone a bit
6 more?

7 MS. FLAMAN: It is incremental abatement that we have
8 considered as part of our 2018 compliance plan, yes.

9 MR. BRETT: Okay. So it's not in your two-17? It was
10 not part of your two-17 -- I thought you reported results
11 from it as part of your two-17 plan.

12 MS. FLAMAN: To clarify, that was -- I didn't hear the
13 2017.

14 Yes, it was reflected in our volumes in 2017's
15 compliance plan as well.

16 MR. BRETT: Okay, and what is the -- what was the --
17 what's the budget for 2018 for it? What amount of money
18 has the province put up for it? It looks like -- I thought
19 I see a number here of 21.5 million in the answer to one of
20 your IRs to Environmental Defence, IR number 12. Is that
21 right, 21.5 million budgeted for '18?

22 If you scroll down a bit there on this one, I think
23 you will see it somewhere at the bottom of the first page.

24 I may have the wrong number here -- oh, sorry, I had
25 the wrong number. It is ED 32.

26 Can you take, subject to check, that it is
27 21.5 million?

28 MR. GINIS: No, I can confirm that's the planned

1 budget for 2018.

2 MR. BRETT: Sorry I gave you the wrong one.

3 Now, in that program, as I understand it, those fund
4 that the government has put in supplement your home
5 retrofit program. Is that right, broadly speaking?

6 MR. GINIS: That's correct.

7 MR. BRETT: So you put a certain amount of money in
8 and they top it up; they top the retrofit cost up to either
9 include more money for certain elements of it or other
10 elements that you did not -- you don't have in your
11 particular retrofit program, right?

12 MR. GINIS: Yes, so the base program, our DSM program,
13 our home reno rebate program, the funding from the
14 government -- and it is outlined at LIEN 1 -- does do that.
15 It enhances some of the incentives. It also provide new
16 rebates for other measures.

17 MR. BRETT: Right.

18 MR. GINIS: And it also expand to customers outside of
19 our franchise area.

20 MR. BRETT: Right, okay. Now, what -- how does Union
21 -- how do you get compensated for doing this? I should
22 perhaps say what do you do to administer the government
23 program or to facilitate the government program, and how do
24 you get compensated for what you do?

25 MR. GINIS: Are you asking specifically about this
26 program?

27 MR. BRETT: Yes, just this program, this specific
28 program.

1 MR. GINIS: There is no compensation in this program.

2 MR. BRETT: You are in the compensated for it at all?

3 MR. GINIS: No, it was funded through a transfer
4 payment agreement through the government.

5 MR. BRETT: Funded a hundred percent by the
6 government?

7 MR. GINIS: Well, a portion of the program was funded
8 by the government. But no amount of that goes to the
9 utility; it's all funding for the program.

10 MR. BRETT: Okay, and do any of the -- do the savings
11 that are achieved through those enhanced retrofits of
12 yours, the ones that the government contributes to, do
13 those savings get into your CDM calculation, bonus profit
14 calculation?

15 MR. GINIS: You are referring to your DSM shareholder
16 incentive? No.

17 So I think we are venturing into the DSM Framework a
18 little bit here. Our volumes are reflected this cap-and-
19 trade compliance plan from the homes that have saved gas
20 because of the program.

21 But to answer your question, no. There is an
22 attribution agreement between us and the government, and
23 only the homes that are attributed to the DSM funding
24 through that agreement would go to our DSM scorecard.

25 The homes that are attributed to the Ministry of
26 Energy or the Province of Ontario do not go along to the
27 DSM scoreboard near the homes or the savings.

28 MR. BRETT: Just so I understand that, are you making

1 the distinction based on whether the home is already on
2 actual gas, or the home is not on actual gas? In other
3 words, if the home is -- that the government contributes
4 directly -- to which the government contributes to the
5 retrofit, does any of that saving go to Union under its DSM
6 program? Do you get a share of that, is what I'm asking.

7 MR. GINIS: We get the share as per the attribution
8 agreement that we made with the government, and that is --
9 so the savings driven from the portion that we are claiming
10 is attributed to the DSM funding, and the portion that is
11 being claimed by the government is not.

12 MR. BRETT: It is really done in proportion to the
13 relative funding under each piece?

14 MR. GINIS: It is based on the agreement that we made
15 with the government.

16 MR. BRETT: Okay, so it's -- this is the attribution
17 agreement that we've spoken of from time to time. I think
18 it was spoken of last year briefly.

19 So Union gets more than simply its pro rata share; is
20 that how it works? Do you get a leg up on -- do you get a
21 margin on it, effectively?

22 MR. GINIS: I think we are really venturing into the
23 DSM Framework here. I think for the cap-and-trade
24 compliance plan, the volumes that are saved to Union Gas
25 customers are reflected in our emissions forecast.

26 MR. BRETT: They are included in your compliance plan?

27 MR. GINIS: Yes.

28 MR. BRETT: All right, so they go towards your

1 compliance plan.

2 Did you file a copy of the attribution agreement
3 between you and the government? I'd ask you to file it, if
4 you could.

5 MS. FLAMAN: We'll have to check, due to
6 confidentiality, if we can file that agreement.

7 MR. BRETT: So subject to confidentiality checking,
8 you agree to file it. Could we have an undertaking for
9 that?

10 MS. DJURDJEVIC: That is JT1.35.

11 **UNDERTAKING NO. JT1.35: SUBJECT TO CONFIDENTIALITY,**
12 **TO FILE A COPY OF THE ATTRIBUTION AGREEMENT BETWEEN**
13 **UNION AND THE GOVERNMENT**

14 MR. BRETT: In terms of the take up of that program,
15 do you have data on -- well, I guess you do, because you
16 have to claim -- you are claiming emission credits for it.
17 But how many people -- how many homes took advantage of
18 this advanced retrofit, say in two-17, approximately?

19 MR. GINIS: So as per the discussion we had this
20 morning, we have not finalized those numbers. We haven't
21 finalized all of our 2017 results at this point, and I
22 don't have that information with me.

23 MR. BRETT: But you have a figure in your -- you had a
24 figure in your proposal last year for what volumes you
25 would have from this, and what was that approximately?
26 What does that equate to the number of homes?

27 MR. GINIS: The forecast?

28 MR. BRETT: Yes, for '17 and for '18.

1 MR. GINIS: Subject to check, the number of homes --
2 and these would be incremental homes that are...

3 MR. BRETT: Right, over and above ones that you had in
4 your program already.

5 MR. GINIS: Correct.

6 MR. BRETT: These are the ones that the government had
7 funded part of.

8 MR. GINIS: Yes, and that they are claiming. The
9 total homes in 20 and 2018 was approximately 10,000.

10 MR. BRETT: So 10,000 in each of those years?

11 MR. GINIS: No, in total.

12 MR. BRETT: How is that broken down, roughly? Five
13 each?

14 MR. GINIS: I don't have that information with me.

15 MR. BRETT: Okay. Well, I guess you can make an
16 estimate of that by looking at what you forecast in 2017
17 and 2018.

18 MR. GINIS: No, we would have a forecast of it. I'm
19 just saying that's not part of this compliance plan.

20 MR. BRETT: What does it translate into in terms of
21 numbers of homes in each year? Do you know that offhand?
22 I mean, they add up to 10,000. My question is, is it 5 and
23 5 or 3 and 7 or what?

24 MR. GINIS: Oh, I understand your question now. I'm
25 saying I don't have that information with me.

26 MR. BRETT: Okay. The -- what do you forecast in
27 terms of a number of homes in '18, 2018? What are you
28 forecasting for the number of homes in 2018?

1 MR. GINIS: Sorry, I am just looking for an IR
2 response, because we did provide the volumes for 2018
3 forecasted --

4 MR. BRETT: Yeah.

5 MR. GINIS: -- and I believe there's calculations in
6 there for 20 --

7 MR. BRETT: Okay. Well, I'll find it then. It's in
8 your evidence as well, right, the volume, at least.

9 MR. GINIS: The volumes are for sure. The homes, I
10 believe, for 2018 --

11 MR. BRETT: Yeah.

12 MR. GINIS: -- would be in an IR response to calculate
13 those volumes --

14 MR. BRETT: Could I just -- could you give us an
15 undertaking for that? There is no point trying to look at
16 it now. I mean, we're -- what is that undertaking?

17 MS. DJURDJEVIC: That would be JT1.36.

18 **UNDERTAKING NO. JT1.36: TO PROVIDE THE FORECAST OF**
19 **THE NUMBER OF HOMES THAT WILL TAKE ADVANTAGE OF THE**
20 **ADVANCED RETROFIT IN 2018.**

21 MR. BRETT: Thanks. And just the -- now, these are
22 just -- going back up a step, these are single-family
23 homes; right? Your retrofit programs we are speaking
24 about, are they -- advanced funding applies to single-
25 family homes? It is a single-family home program,
26 basically?

27 MR. GINIS: That's correct.

28 MR. BRETT: And have you been able to spend your

1 budgets? Have you been able to, I guess put it this way,
2 facilitate this expenditure of the government's funding in
3 each of the years that they have provided it? Or, sorry,
4 just '17, I guess. You've only got one complete year, '17,
5 right?

6 MR. GINIS: There was some results in '16 as well,
7 but --

8 MR. BRETT: Okay.

9 MR. GINIS: -- we are on track to spend --

10 MR. BRETT: You are on track to spend the money. You
11 have enough demand and you --

12 MR. GINIS: Yes.

13 MR. BRETT: Okay. If I may just sidestep for a
14 moment. You have a report, as I understand it, you have an
15 annual report that you will make to the government about
16 each year of your compliance plan, and you have one --
17 you've now completed your 2017 compliance plan.

18 When is your report due to the government on the
19 performance of your plan in two-17? Is there a date that
20 that is due? Or...

21 MR. DANTZER: I think if you are referring to the
22 annual update as part of the framework, I'd have to check,
23 but I think that is in the context of filing a multi-year
24 compliance plan, so we wouldn't have an annual update for
25 2017 --

26 MR. BRETT: You'd have a -- my recollection was that
27 you were going to have a report that you would be filing
28 with the government at no later than the time at which you

1 filed your 2019 plan. In other words, if you were going to
2 file your plan -- right now we're talking about your '18
3 plan. And are you -- is your position -- is your point
4 that -- I seem to recall that you -- there was a
5 requirement that you file an assessment of your 2017
6 results. There were some forms discussed and forms --
7 formats discussed. I'm talking now of going back to last
8 year's case.

9 My question is when does that material have to be
10 filed with the government.

11 MS. SEERS: Mr. Brett, do you have a reference that --

12 MR. BRETT: I do not. It is a general question on the
13 structure of the plan.

14 MS. NEWBURY: So the filing will be in accordance
15 to -- to your point with what was prescribed, so we will be
16 filing full-year 2017 data in 2018 as part of our 2019/2020
17 compliance plan. There is a reference to this at the
18 bottom of page 1 in Exhibit 4.

19 MR. BRETT: Yeah, so the time again is when you file
20 your 2019 plan?

21 MS. NEWBURY: Correct.

22 MR. BRETT: Which will be, what, August of this year?

23 MS. NEWBURY: The target -- or the framework date is
24 August 1st.

25 MR. BRETT: Sorry?

26 MS. NEWBURY: August 1st.

27 MR. BRETT: Yeah, that's what I thought. And at that
28 -- now, is that the time that you will -- I guess the

1 question is: When will you seek a prudency review of your
2 performance of the 2017 plan? I'm assuming that the issue
3 of prudency would be looked at when you file on August 1st.
4 Is that your understanding? So for clarification so
5 everybody -- so, you know, what I think you all know what
6 I'm talking about, there is a -- there is a -- once the
7 expenditures have been made you would certainly know, Ms.
8 Newburg (sic), there is a prudency review required at some
9 point. When do you think that's going to be? Is it going
10 to be on August -- as part of that August 1st submission?
11 Sorry, Ms. Newbury. Apologies.

12 MS. NEWBURY: I believe that is correct, but I'd have
13 to confirm it.

14 MR. BRETT: Okay. Would you just, subject to check,
15 or give me an undertaking on that, perhaps?

16 MS. DJURDJEVIC: Well, do we -- again, I mean, the
17 answer was, yes subject to check, so --

18 MR. BRETT: Right. All right. Well, that's fine.
19 Leave it.

20 I want to switch gears a little bit now to ask you a
21 few questions about the broadening of the program, you
22 know, the recent change to include -- to join -- under
23 which Ontario's joined the WIC -- WCI, so these are
24 relatively high-level questions, but they go to the new
25 framework, so they're important, and the -- what I'm
26 looking at here, among other things, is the Ontario,
27 Quebec, and California joint agreement of September 27th,
28 2017. You don't have to turn that up. That is just a

1 background document that I may come back to, but the first
2 question is really, if you turn up your evidence at Exhibit
3 3, tab 1, page 11, please? This is probably about as good
4 a place to start as any.

5 MS. NEWBURY: I have it.

6 MR. BRETT: Do you have that there?

7 MS. NEWBURY: Yes, I do have it.

8 MR. BRETT: Okay. Now, what my -- if you look at the
9 first bullet point there, finalization -- the -- talks
10 about the linkage -- completion of the linkage readiness
11 report, certain additional steps are required before
12 linkage is complete. These steps include finalization of
13 Ontario's amendments to the cap-and-trade regulations to
14 facilitate linkage.

15 Have those amendments been made? Are they in effect
16 now?

17 MS. NEWBURY: Yes, they are. The WCI linkage went
18 into effect January 1 of this year.

19 MR. BRETT: All right. So you basically -- it's
20 operational as of January 1.

21 MS. NEWBURY: That is correct.

22 MR. BRETT: Well, that's going to make this a little
23 easier. The -- so among other things, I just want to make
24 sure I understand basically the impact of this on Union's
25 overall situation, in other words.

26 As I understand it, there is -- with this linkage,
27 among other things, an Ontario party -- or an Ontario
28 capped party can purchase allowances in California; is that

1 correct? Let me rephrase that a little bit, and maybe you
2 can fill in the gaps here a bit for me.

3 As I understand it, there's a linked auction. So
4 there is a single auction for all three jurisdictions?

5 MS. NEWBURY: That is correct.

6 MR. BRETT: So someone going into that auction,
7 regardless of whether you are in California, Ontario,
8 Quebec, you have -- you're entitled to bid in that single
9 joint auction, right?

10 MS. NEWBURY: Correct. There is only one auction, the
11 WCI auction.

12 MR. BRETT: And it is still the same as before, four
13 times a year?

14 MS. NEWBURY: Correct.

15 MR. BRETT: So one has been held, I take it, eh?

16 MS. NEWBURY: Yes, there was one in Q1.

17 MR. BRETT: I know that the government of Ontario
18 published reports. They are required to publish sort of a
19 summary report of each auction within a certain number of
20 days of each auction. Has that been done for the March
21 15th auction?

22 MS. NEWBURY: I believe it has.

23 MR. BRETT: Can we get a copy of that? We can get it
24 from Ontario, I guess.

25 MS. NEWBURY: It is available on the government
26 website.

27 MR. BRETT: You've got enough to do. I'll chase that
28 down myself.

1 In addition, I take it an Ontario party is now able to
2 purchase allowances in the secondary market in California?
3 Or is there just one secondary market?

4 MS. NEWBURY: Correct, there is one market.

5 MR. BRETT: There is one secondary market, okay. And
6 now I'm going to mix -- I'm mixing and matching as I go
7 here, but I want to get through a bit of this fairly
8 quickly.

9 You're entitled to purchase offsets in California as
10 well?

11 MR. BRETT: Offsets are available for purchase in the
12 WCI market and yes, they are California offsets.

13 MR. BRETT: Offsets for any of the three jurisdictions
14 is what you're saying?

15 MS. NEWBURY: Right now, I believe California is the
16 only jurisdiction with offsets for sale.

17 MR. BRETT: Right, and they have what, half a dozen
18 protocols out now, and something of that ...

19 MS. NEWBURY: That is in our evidence. I believe it
20 is slightly more than half a dozen, but it is in that
21 ballpark.

22 MR. BRETT: And they have a limit on the number of
23 options -- they have a limit on offsets. They changed
24 their limit from 8 percent to 4 percent. Is that -- do you
25 recall that?

26 MS. NEWBURY: I believe that that is a post 2020
27 amendment.

28 MR. BRETT: I see. That is part of a change of 2020.

1 MS. NEWBURY: Yes, that is discussed in Exhibit 3, tab
2 1, page 13.

3 MR. BRETT: All right. Okay. Now the significance, I
4 guess, of the -- I mean, everybody has his own view of the
5 significance of this change. But am I right in that one of
6 the significant factors is that because we've got a single
7 market for allowances, and because California has a very
8 large number of allowances and, for want of a better word,
9 have been stockpiled for the time being, they have a lot of
10 allowances to offer. And therefore, the view expressed in
11 most quarters, including the ICF document on the price
12 forward, price curve is that the presence of those -- that
13 large amount of California offsets will keep the price of
14 offsets low for a considerable period of time, probably up
15 into the 2024, 2025 range, right? Is that your
16 understanding?

17 I think if you look at the curves in the...

18 MS. NEWBURY: So again, it -- if you go to Exhibit 3,
19 tab 1, page 12, it will show you the relative size of each
20 of the component -- or each of the participants in the WCI
21 market. And you are correct that California does make up
22 the vast majority of the WCI and as a result...

23 MR. BRETT: That's 65 percent, or something like that?

24 MS. NEWBURY: That's correct.

25 MR. BRETT: And Union is what, 4 percent?

26 MR. BRETT: Our evidence is 3 percent, but very close,
27 yes.

28 MR. BRETT: All right. But what you are telling me is

1 -- I want to make sure I get this. You are telling me that
2 California's allowances constitute 65 percent of the total
3 allowances available in the pool.

4 MS. NEWBURY: Each year, this represents the number of
5 allowances that each jurisdiction would make available into
6 the market.

7 MR. BRETT: Right.

8 MS. NEWBURY: And I think your question is what's the
9 demand relative to the allowances that are available.

10 MR. BRETT: Right, right.

11 MS. NEWBURY: And again, I think there are different
12 reports and papers out there. There's different consulting
13 companies that have opinions on it.

14 MR. BRETT: Right. You're the ITC gave you -- ICF. I
15 confuse these guys; they rule have three capital letters in
16 their name.

17 ICF gave you a view of that, or gave the Board a view
18 of that in their work and it seemed to -- if I recall, it
19 showed a very fairly flat curve going out for the first
20 period of time as opposed to, for example, if you looked at
21 the material that the Ministry of Energy did last year,
22 which I'm sure you have, in the event that there were no
23 linkage, you will recall that the price was going to
24 accelerate very, very quickly, right?

25 MS. SEERS: Mr. Brett, if you are going to be
26 putting...

27 MS. NEWBURY: I believe you are referring to the long-
28 term carbon price forecast, and the scenario that you

1 discussed is sun of the scenarios within that where Ontario
2 does not link to the WCI market is the maximum case.

3 MR. BRETT: What page are you looking at there? Oh, I
4 see. You are looking at page 21 here, which has a mid-
5 range, a minimum and a maximum.

6 MS. DJURJEVIC: Sorry to interrupt, Mr. Brett. Just
7 to make the record clear, is this a document that's in the
8 evidence, or do we need to make it a separate exhibit?

9 MR. BRETT: It is in the evidence, I believe. It
10 should be.

11 MS. DJURDJEVIC: Is it or isn't it?

12 MR. BRETT: It should be in the record certainly. It
13 was done for the Board. So is it in the record, do you
14 know?

15 MS. SEERS: We made it an exhibit.

16 MS. DJURDJEVIC: Earlier you you had you had the
17 marginal abatement cost curve document.

18 MR. BRETT: I'd like to have this put in the record as
19 an exhibit.

20 MS. DJURDJEVIC: All right, so we'll make that exhibit
21 KT1.6, and it is the ICF long-term carbon price forecast.

22 **EXHIBIT NO. KT1.6: DOCUMENT ENTITLED "ICF LONG-TERM**
23 **CARBON PRICE FORECAST."**

24 MR. BRETT: I was just going to page 21, and we're
25 looking at a minimum, maximum, and mid-range.

26 Now, I haven't read -- I have read this report, but
27 not in the last twenty-four hours.

28 But my understanding was that effectively, the mid-

1 range showed a -- as I look at it here, it shows a flat
2 price up until about 2023. And I'm pretty sure I read in
3 here -- and you can take this subject to check, or you can
4 contradict me, if you like -- but my understanding is that
5 was based in part on the fact -- that was based on the
6 linkage with California, let's put it that way.

7 Do you agree with that?

8 MS. SEERS: Mr. Brett, are you asking the panel to
9 explain what ICF...

10 MR. BRETT: No, I'm asking the panel to -- I'm asking
11 the panel to agree with what I just said about what the ICF
12 graph means.

13 MS. SEERS: We're not going to answer that.

14 MR. BRETT: Why?

15 MS. SEERS: What? You want the panel to...

16 MR. BRETT: I want the panel to look at page 21, look
17 at the graph, and with your knowledge of the text of the
18 report, tell me if this mid -- if this mid-range graph
19 something is something that you believe is reasonable.

20 MS. NEWBURY: Just to get the correct reference, I
21 believe you are looking at Exhibit 3, tab 1, page 17,
22 figure 1.

23 MR. BRETT: I am looking at page 21. What page did
24 you say?

25 MS. NEWBURY: I'm sorry, page 21 of what reference?

26 MR. BRETT: Of the long-term carbon forecast. Sorry.

27 MS. NEWBURY: Which is the same graph as shown within
28 our evidence at the...

1 MR. BRETT: It's in your evidence. All right.

2 MS. NEWBURY: So again, the purpose of the long-term
3 carbon forecast, it was put together in support of the MACC
4 report. This is again -- it is a point-in-time forecast.
5 It doesn't necessarily reflect what is actually going to
6 happen in the market.

7 MR. BRETT: Yeah, all right. Let's just carry on
8 here.

9 Now, the -- can you just explain to me briefly what
10 holding -- holding limits are -- holding limits -- give me
11 your interpretation of what holding limits are in the
12 context of the -- of this program?

13 MS. NEWBURY: So holding limits are the amount of
14 allowances that any one party can hold at a given time. So
15 the holding limit represents the maximum number of
16 allowances that a party can hold.

17 MR. BRETT: And is that at any given point in time or
18 is that confined to holding it over the term of a -- over a
19 term of a -- of a plan? In other words, if you -- say you
20 had 100 units now, if -- and your plan ended in the first
21 -- at the end of 2020 and you held those until 2019, those
22 hundred units, and then you divested them, so you had zero
23 at the end of the -- so you weren't holding any units over
24 the change in plan into the second plan.

25 MS. NEWBURY: The holding limits are calculated
26 annually.

27 MR. BRETT: All right.

28 MS. NEWBURY: So they are determined annually.

1 MR. BRETT: All right. So it's an annual test. And
2 the fact that you have -- your holding limits -- there is a
3 provision in the -- as I recall, in the regulation that
4 says if you are related companies that you must share the
5 holding limits; right? You are aware of that?

6 MS. NEWBURY: Yes, I am.

7 MR. BRETT: Are you related -- are you in Union
8 compelled to share your holding units at this point?

9 MS. NEWBURY: So the affiliated entities in the WCI
10 market that Union is related to is --

11 MR. BRETT: Sorry, could you just go a little slower?
12 I'm losing you there.

13 MS. NEWBURY: The related entities for Union Gas in
14 the WCI market is Enbridge Gas Distribution and Gazifère.

15 MR. BRETT: I understand that. They are related --

16 MS. NEWBURY: Correct.

17 MR. BRETT: -- those two companies are now related
18 because they are under common ownership.

19 MS. NEWBURY: Correct.

20 MR. BRETT: But that means that you have to share the
21 holding limit that you -- so what does that mean in terms
22 of sharing? That together you can hold the sum of them or
23 together you can only hold one, one portion? I thought it
24 was the latter, but I --

25 MS. NEWBURY: I am just looking for the evidence
26 reference.

27 So while it's a -- sorry, I'm just looking for the
28 evidence references. It's discussed in a couple of

1 different IRs.

2 So the best reference for what you are talking about
3 specifically is in Exhibit 3, tab 6, page 13, at the top.

4 MR. BRETT: Right. Just a moment. Let me just turn
5 that up. Exhibit 3, tab 6.

6 MS. NEWBURY: And it really just restates what I just
7 said, that --

8 MR. BRETT: What was the page on that, please?

9 MS. NEWBURY: Exhibit 3, tab 6, page 13.

10 MR. BRETT: Page 13?

11 MS. NEWBURY: Yes.

12 MR. BRETT: Exhibit 6?

13 MS. NEWBURY: Exhibit 3.

14 MR. BRETT: Exhibit 3, tab 6.

15 MS. NEWBURY: Tab 6. Page 13.

16 MR. BRETT: Just a second here. Tab 6, page 13.

17 Yeah, okay. I have it. Are you talking about the
18 footnote? Oh, yeah, okay. I understand what that is.

19 You applied for an exemption in 2017 for that. You
20 got -- the government gave you a regulation that allowed
21 you to not be concerned -- not have to share your purchase
22 and holding limits in 2017 as a result of this OR-56-17,
23 but that expired December 31st, 2017.

24 Do you have another regulation? Did you get a second
25 regulation pass? Actually -- well, sorry, I'll just -- do
26 you know whether you got another -- had that regulation
27 extended, or you could just do an undertaking on it?

28 MS. NEWBURY: No, we have -- the information is

1 available in evidence, so Exhibit 3, tab 2, page 11
2 discusses the fact that you --

3 MR. BRETT: Now you are at page -- tab 2?

4 MS. NEWBURY: Exhibit 3, tab 2, page 11 discussed --

5 MR. BRETT: Exhibit 3, tab 2. Okay. You are shifting
6 here. Is that Exhibit 2 or...

7 MS. NEWBURY: Exhibit 3, tab 2.

8 MR. BRETT: All right. Just a second. Okay, what
9 page is that on?

10 MS. NEWBURY: Page 11.

11 MR. BRETT: Not appendix, but the actual exhibit
12 itself.

13 All right. Okay, I'm there.

14 MS. NEWBURY: So we did apply for a holding limit
15 again in 2018 and we did receive a holding limit exemption.

16 MR. BRETT: I see. I got it. Yes, I have it
17 underlined here, but I forgot it. All right. Thank you.

18 Okay, let's just see -- so effectively that means
19 you're exempted from having to share your -- you're
20 exempted from the maximum share of allowances ceiling until
21 you merge, I guess, eh?

22 MS. NEWBURY: So they are actually two separate
23 issues. So the one is, again, the sharing of the holding
24 limit as a result of our shared ownership, but the need for
25 the exemption is more that the carbon market in Ontario is
26 relatively new and there is not sufficient history to
27 support the calculation that is done annually, which has
28 required us to ask for an exemption in 2017 and 2018. We

1 will not require one in 2019.

2 MR. BRETT: You will require one?

3 MS. NEWBURY: We will not.

4 MR. BRETT: Oh, so you'll --

5 MS. NEWBURY: We will have enough history.

6 MR. BRETT: You have an exemption. Okay, I see what
7 you are saying. You are saying you don't have enough of a
8 market really for them to confidently strike --

9 MS. NEWBURY: The calculation is based on historic
10 numbers.

11 [Reporter appeals.]

12 MR. BRETT: Sorry, just wait until I finish. I'm
13 paraphrasing your answer and what I'm saying is -- what I
14 think you are saying is that the market is not sufficiently
15 mature for you to feel comfortable with a maximum purchase
16 percentage of the market in Ontario.

17 MS. NEWBURY: No, that is not correct.

18 MR. BRETT: Right?

19 MS. NEWBURY: No, that is not correct. The holding
20 limit is a calculation, and it's a calculation based on
21 historic actuals.

22 MR. BRETT: I'm not talking about the holding limit
23 now; I'm talking about the maximum purchase.

24 There is a requirement that -- like, there is a
25 ceiling on the amount of percentage of allowances that you
26 can hold in the Ontario market.

27 And as I understand it, once you have a related
28 company involved with you, you have to share that maximum

1 percentage that you can hold in the market. Is that your
2 understanding -- unless you have an exemption from that?

3 MS. NEWBURY: The sharing of the holding limits and
4 the exemption are two separate items.

5 MR. BRETT: All right.

6 MS. NEWBURY: We had an exemption last year when we
7 did not have a requirement to share limits.

8 MR. BRETT: Right.

9 MS. NEWBURY: And we have the same situation this
10 year. It is independent of the related entities.

11 MS. DJURDJEVIC: Sorry to interrupt, but I just want
12 to caution parties that while it is acceptable to talk
13 about what the regulatory requirements are, any discussions
14 about what a utility's actual holdings are or what their
15 market position is -

16 MR. BRETT: We understand that.

17 MS. DJURDJEVIC: -- are strictly confidential.

18 MR. BRETT: That's 101 stuff here. We are not going
19 to get into that. We fought that fight last year and lost.
20 They made everything confidential, essentially.

21 All right. I understand now what you're saying, but
22 you are -- you are saying that the regulation has nothing
23 to do with the maximum share of allowances that you can
24 hold -- not that you can hold, sorry; the maximum amount
25 that you can purchase, you're entitled to purchase.

26 MS. NEWBURY: Your terminology was correct the first
27 time. It is the holding limit. Again, just to reiterate
28 the holding limits are the -- it limits the amount of

1 allowances that any one party can hold at a given time.

2 There is a calculation for holding limits that is done
3 annually, and because Ontario is a new market, there is not
4 sufficient information or data available to calculate
5 holding limits for us. So we asked for an exemption until
6 we had enough years of history to support the calculation.

7 MR. BRETT: Now, does the extension into California
8 effect that? You now have a larger market to play in.

9 MS. NEWBURY: So the separate issue with respect to
10 joining the WCI is that -- back to what we were talking
11 about at the top of page -- Exhibit 3, tab 6, page 13.

12 MR. BRETT: Oh, I see. You are required to share
13 auction purchase limits and a general holding limit?

14 MS. NEWBURY: Correct, and that's discussed further in
15 Board Staff 15, where we go on it say that that doesn't
16 mean -- we're still acting as independent entities and we
17 are still acting as three separate companies, but under
18 shared limits.

19 MR. BRETT: I see. Just one other area that -- brief
20 area. Let me just preface this question by a comment to
21 set the context in which I'm looking at this.

22 In order for this -- in order for this carbon
23 abatement plan and DSM plan to work, to be coherent going
24 forward, there are three things, in my view, that have to
25 happen.

26 One, you have to integrate the DSM market and enhance
27 it, which is what you've talked about doing in a number of
28 these answers this morning.

1 You have to understand where the government is coming
2 from, and get a handle on what programs it is going to
3 initiate in the areas in which you are already active in
4 the CDM. And you are going to actually then have to also
5 have a handle on where they're going on the other parts of
6 the cap-and-trade program that are not related to your DSM
7 activities.

8 But in particular, here's the -- here's my question to
9 you. You've been asked this question in different ways a
10 little bit earlier today, but how are you going to
11 determine -- and the reason I asked you a bunch of
12 questions on the Green Energy fund initially is because
13 that in my mind is a prototype, or could be a protocol type
14 for a number of other initiatives that the government
15 takes.

16 How are you going to determine when the government is
17 going to launch a program, and we know how governments can
18 be about launching programs. How are you going to
19 determine that? Are you effectively going to -- have you
20 been talking to the government about reaching an
21 understanding of the areas in which they are proposing to
22 throw a lot of -- to invest substantial funds?

23 In fact, as an aside, if you were to look at
24 Enbridge's evidence, they specifically make reference to
25 the fact that one of the reasons we don't want to engage in
26 a new DSM initiative now is that the government may come
27 along a month from now and blow us out of the water with a
28 subsidy twice what ours is. So you have to know what the

1 government is doing to do, it seems to me, to make this
2 thing work.

3 The reason it is important is because in economic
4 terms, purely economic terms, there's a lot of DSM that
5 makes all sort of sense. Leaving aside subsidiaries and
6 leaving aside all the rest of the nonsense, there's a lot
7 of DSM-activity that does make sense, certainly enhancing
8 the volume of existing activities, if not the launch of
9 brand new ideas from somewhere else.

10 So the question is how are you going to do that? How
11 are you going to ensure that your efforts are coordinated
12 closely with the government's implementation of its own --
13 its own Green Energy programs in your backyard, in your CDM
14 backyard, as it were.

15 What's the plan to get a hold of that?

16 MS. FLAMAN: So I would firstly agree with your
17 comment that DSM has certainly delivered energy
18 conservation and has done so successfully for the past 20
19 years.

20 Additionally, you are right. Duplicating those same
21 conservation energy programs would not be good for our DSM
22 programs, and certainly it's something that we have pushed
23 the government on and noted.

24 We have also again suggested that collaboration on
25 these programs is the best way to leverage those GreenON
26 funds.

27 So we have, as I noted earlier today, proactively
28 engaged with GreenON. We have proactively engaged with the

1 MOECC to continue to educate them on our programs and look
2 for opportunities to collaborate.

3 Unfortunately, we are not subject to or party to, nor
4 can I speculate on government decision-making, so how they
5 choose to allocate their GreenON funds is not something we
6 are party to. But we have certainly, and as I noted
7 earlier today, made our positions clear that we do not
8 think GreenON funding should duplicate existing DSM energy
9 conservation programs.

10 MR. BRETT: Thanks. Those are my questions.

11 **FOLLOW-UP QUESTIONS BY DR. HIGGIN:**

12 DR. HIGGIN: One question, a follow-up to that topic.
13 It's Roger Higgin for Energy Probe.

14 Have you considered or discussed a memorandum of
15 understanding with the government to try and ensure that
16 there will be coordination with the government programs and
17 so on that has been done in other jurisdictions?

18 So have you discussed that, and can you update us on
19 the status of that either verbally or by an undertaking if
20 you like?

21 MS. FLAMAN: No, we haven't discussed a memorandum of
22 understanding on GreenON.

23 **PROCEDURAL MATTERS:**

24 MS. DJURDJEVIC: All right. Thank you, everyone, and
25 thank you for sticking it out until 5:35.

26 We have a number of undertakings, and I am going to
27 suggest one week from now for those responses, given that
28 we have the hearing starting in two weeks.

1 If Union can get those responses sooner than next
2 Monday, that would also help things along, so thanks again
3 very much. We're concluded.

4 --- Whereupon the conference adjourned at 5:35 p.m.

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