



ONTARIO ENERGY BOARD

FILE NO.: EB-2012-0433
EB-2012-0451
EB-2013-0074

VOLUME: 3

DATE: September 17, 2013

BEFORE: Cynthia Chaplin Presiding Member and Vice-Chair
Marika Hare Member
Peter Noonan Member

EB-2012-0433
EB-2012-0451
EB-2013-0074

THE ONTARIO ENERGY BOARD

IN THE MATTER OF an application by Enbridge Gas Distribution Inc. for: an order or orders granting leave to construct a natural gas pipeline and ancillary facilities in the Town of Milton, City of Markham, Town of Richmond Hill, City of Brampton, City of Toronto, City of Vaughan and the Region of Halton, the Region of Peel and the Region of York; and an order or orders approving the methodology to establish a rate for transportation services for TransCanada Pipelines Limited;

AND IN THE MATTER OF an application by Union Gas Limited for: an Order or Orders for pre-approval of recovery of the cost consequences of all facilities associated with the development of the proposed Parkway West site; an Order or Orders granting leave to construct natural gas pipelines and ancillary facilities in the Town of Milton; an Order or Orders for pre-approval of recovery of the cost consequences of all facilities associated with the development of the proposed Brantford-Kirkwall/Parkway D Compressor Station project; an Order or Orders for preapproval of the cost consequences of two long term short haul transportation contracts; and an Order or Orders granting leave to construct natural gas pipelines and ancillary facilities in the City of Cambridge and City of Hamilton.

Hearing held at 2300 Yonge Street,
25th Floor, Toronto, Ontario,
on Tuesday, September 17th, 2013,
commencing at 8:32 a.m.

VOLUME 3

BEFORE:

CYNTHIA CHAPLIN	Presiding Member and Vice-Chair
MARIKA HARE	Member
PETER NOONAN	Member

A P P E A R A N C E S

MICHAEL MILLAR	Board Counsel
JOSH WASYLYK	Board Staff
ZORA CRNOJACKI	
FRED CASS	Enbridge Gas Distribution Ltd.
CRAWFORD SMITH	Union Gas
MYRIAM SEERS	
ELISABETH DeMARCO	Association of Power Producers of
JOHN WOLNIK	Ontario (APPrO)
TOM BRETT	Building Owners and Managers
	Association (BOMA)
VINCE DeROSE	Canadian Manufacturers & Exporters
	(CME)
JULIE GIRVAN	Consumers Council of Canada (CCC)
STEVEN SHRYBMAN	Council of Canadians
ROGER HIGGIN	Energy Probe Research Foundation
DWAYNE QUINN	Federation of Rental-housing
	Providers of Ontario (FRPO)
MARK CRANE	Industrial Gas Users' Association
	(IGUA)
DAVID POCH	Green Energy Coalition (GEC)
RANDY AIKEN	London Property Management
	Association (LPMA)
DAVID GERMAIN	Markham Gateway
MARK RUBENSTEIN	School Energy Coalition (SEC)

A P P E A R A N C E S

GORDON CAMERON

TransCanada Pipelines Ltd.

MICHAEL JANIGAN

Vulnerable Energy Consumers'
Coalition (VECC)

ALSO PRESENT:

KAREN HOCKIN
MARK KITCHEN

Union Gas

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

<u>Description</u>	<u>Page No.</u>
--- On commencing at 8:32 a.m.	1
Preliminary Matters	1
UNION GAS - PANEL 1, Resumed	1
P. Rietdyk, R. Birmingham, M. Isherwood, C. Shorts, J. Redford, B.B. Henning; Sworn	
Cross-Examination by Dr. Higgin	2
Cross-Examination by Mr. Quinn	15
Cross-Examination by Mr. Poch	41
--- Recess taken at 10:26 a.m.	68
--- On resuming at 11:00 a.m.	68
Cross-Examination by Mr. Wolnik	69
Cross-Examination by Mr. Crane	85
Cross-Examination by Mr. Rubenstein	88
Cross-Examination by Mr. Shrybman	92
Cross-Examination by Mr. Millar	117
Re-Examination by Mr. Smith	119
Questions by the Board	125
UNION GAS - PANEL 3	127
J. Redford, M. Isherwood, P. Rietdyk, Previously Sworn; M. George, Sworn	
Examination-In-Chief by Mr. Smith	128
Cross-Examination by Mr. Brett	129
--- Whereupon the hearing adjourned at 1:03 p.m.	144

E X H I B I T S

<u>Description</u>	<u>Page No.</u>
EXHIBIT NO. K3.1: FRPO COMPENDIUM	15
EXHIBIT NO. K3.2: SEC COMPENDIUM.	90

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

<u>Description</u>	<u>Page No.</u>
UNDERTAKING NO. J3.1: TO CREATE A CHART OF ACTUAL OR FORECAST DESIGN-DAY QUANTITIES	12
UNDERTAKING NO. J3.2: TO REMOVE DEMAND COMPONENT FROM METHODS 1, 2 AND 3, AND PROVIDE ONLY COMMODITY AND FUEL RATES.	21
UNDERTAKING NO. J3.3: TO PROVIDE CALCULATION OF EXPECTED TOLL WITH ENERGY EAST PROJECT INCLUDED.	30
UNDERTAKING NO. J3.4: TO PROVIDE EMPRESS NUMBER USED AS A BASIS FOR TABLE 3.7.	32
UNDERTAKING NO. J3.5: ICF TO PROVIDE QUALITATIVE ANALYSIS ON AN UPDATE TO EX 3-7, AND 3-8 (TABLES) THAT DISCUSS DYNAMICS OF 1) TERM SHEET DETAILS, AND 2) ENERGY EAST NOT PROCEEDING.	41
UNDERTAKING NO. J3.6: TO PRODUCE ANALYSIS OF COMPETITION FOR MARCELLUS AND UTICA SHALE GAS.	117

1 Tuesday, September 17, 2013

2 --- On commencing at 8:32 a.m.

3 MS. CHAPLIN: Please be seated. Good morning,
4 everyone. Is there any -- are there any preliminary
5 matters before we continue with the cross-examination?

6 **PRELIMINARY MATTERS:**

7 MR. SMITH: Members of the Board, one brief
8 preliminary matter. During the technical conference there
9 had been a request, in addition to the correspondence with
10 the National Energy Board, which we have filed at K1.2, to
11 close the loop with all outstanding matters, and that would
12 include the lawsuit that had been launched by TransCanada
13 against Enbridge.

14 The order dismissing that claim has now been received
15 from the Superior Court of Justice. I would propose to
16 include that order in what has already been marked as
17 Exhibit K1.2, so when it's filed by Union on the Board's
18 system we would just include the order from the court
19 dismissing the claim.

20 MS. CHAPLIN: So this will be part of K1.2.

21 MR. SMITH: Yes.

22 MR. MILLAR: And that's the document that has been
23 placed on the dais.

24 MS. CHAPLIN: The order. Okay. Thank you.

25 Dr. Higgin, I believe you were going to go next. I
26 understand you're going to go next.

27 DR. HIGGIN: Yes. Thank you, Madam Chair.

28 **UNION GAS - PANEL 1, RESUMED**

1 Paul Rietdyk, Previously Sworn

2 Rick Birmingham, Previously Sworn

3 Mark Isherwood, Previously Sworn

4 Chris Shorts, Previously Sworn

5 Jim Redford, Previously Sworn

6 Bruce B. Henning, Previously Sworn

7 CROSS-EXAMINATION BY DR. HIGGIN:

8 DR. HIGGIN: Good morning, panel. It's Roger Higgin
9 for Energy Probe. I'd like to start with some questions on
10 the EB-2013-0074 application and then move on to the 433
11 LCU. So starting with that, I have a reference from the
12 evidence, which is actually an IR reference, for you to
13 pull up. And this is FRPO Exhibit I.A1.UGL.FRPO 22. So
14 this is FRPO 22.

15 So can you briefly orient us what this interrogatory
16 response covers and what you were asked to provide in this
17 response, and then I'll move on with some questions. Just
18 a very brief orientation.

19 MR. RIETDYK: Actually, my preference would be to
20 defer this until the next panel. I think Michelle George
21 is probably the best person that might be able to offer an
22 answer to this question.

23 DR. HIGGIN: The issue here is that -- the question of
24 turnback and the impact that that will have on that number,
25 which is -- on the page 2, which is the predicted flow,
26 3290020. That's an increase in flow. And my questions all
27 relate to where is that flow coming from as a net and where
28 turnback and other factors lead to that number.

1 So that's the orientation of them. If you still feel
2 that you can't deal with these questions, then I'll have to
3 ask the discretion of the Board to postpone them to the
4 next panel and take my time with it.

5 MR. REDFORD: I might be able to answer that as it
6 relates to turnback.

7 DR. HIGGIN: Yes. That's where I'm going. The
8 context for it is that if you look at the numbers in those
9 two schedules you will see that from the first schedule,
10 which is without Brantford to Kirkwall, and the second
11 schedule, which is with Brantford to Kirkwall, there is
12 both volumes and horsepower increases in there, okay?

13 And so the volume increase, if you look at page 2 --
14 let's go to the number on page 2 -- you'll see the volume
15 there. It's a little small, but it's 3290020 on the bottom
16 line. See that?

17 And so what I'm asking is, the difference between that
18 and the previous schedule is approximately 200 gJs per day.
19 That is to my mind the net increase -- and this is for
20 2015-16, okay -- at Parkway.

21 So first, am I correct that that's what the schedule
22 shows, that there is a net increase in volume at Parkway of
23 200 gJs per day, approximately?

24 MR. REDFORD: That's what it shows.

25 DR. HIGGIN: Thank you. So what I'd like to
26 understand, where that 200 is coming from, and so that's
27 the questions that I'd like to put to you.

28 So let's go to turnback, and because Mr. Redford said

1 he could deal with this, can we turn up then Exhibit
2 I.A1.UGL.Staff 9. Just waiting for it to come up on the
3 screen. And I'd like to go to the page 2, and I think we
4 have that here now in front of us. That's this table.

5 So Mr. Redford, I wonder if you could help me. Just
6 orient us by showing what those particular numbers relate
7 to, starting with the 2015-16, because that's the date
8 where the in-service of Parkway West is going to happen.
9 So just focus on the 2015-2016, Mr. Redford, if you could.

10 MR. REDFORD: Yeah. What this chart shows are the
11 pluses and minuses growth, as well as turnback, on the
12 system. So in '15-'16 the in-franchise growth of about 70
13 tJs per day is the Union Gas volume --

14 DR. HIGGIN: Correct.

15 MR. REDFORD: -- following Dawn to Parkway that will
16 flow on towards the NDA and EDA. The ex-franchise
17 contracted growth are the contracts that we have signed and
18 that are put forward in this application --

19 DR. HIGGIN: That's the 400 for EGD and the 257 for
20 GMI, correct?

21 MR. REDFORD: Correct. And then the turnback is our
22 forecast of the turnback that we'll receive in 2015-2016.
23 And then the total demand change is a plus and minus of
24 those.

25 DR. HIGGIN: Right. So just to see where we are, that
26 doesn't seem to add up to 200 gJs per day increase at
27 Parkway, correct?

28 MR. REDFORD: Yeah, I think that's just Brantford-

1 Kirkwall on/off, is what FRPO -- UGL.FRPO 22 is showing.

2 The net of how the volumes are dealt with -- I'll turn
3 up my notes here. There are a number of -- a number of
4 ways that we're meeting the volumes.

5 So there's surplus in the system which is being
6 eliminated, and we talked about that, of being about 166
7 tJs a day. There's also the turnback that we're expecting
8 in '15 --

9 DR. HIGGIN: As shown there?

10 MR. REDFORD: -- which has a -- yeah, which has a net
11 effect. There's the new facilities of about 433 tJs a day,
12 and there's a shortfall at the end of about 123 tJs a day
13 as well.

14 So there's a number of ways that we're meeting this
15 new load, not just through new facilities, but through
16 turnback, as well as through the surplus that's on our
17 system or that we expect to be on our system as of '14 and
18 '15 just prior to the facilities going in-service.

19 DR. HIGGIN: Okay. Thank you. So I wonder if you
20 could turn up another exhibit which talks about your
21 forecast of turnback, and that's the next staff one, which
22 is I.A1.UGL.Staff 10.

23 Okay. So we have the table here. And just to orient
24 us, you can show for the 2015, the November. There is the
25 2017 we've just talked about; correct?

26 MR. REDFORD: That's correct. That's made up of
27 turnback on the Dawn-Kirkwall path as well as the Dawn-
28 Parkway path.

1 DR. HIGGIN: Right. So let's look at the overall
2 turnback used for modelling. And perhaps you can explain
3 to us in big, macro terms, there seems to be on this chart
4 at the bottom, right through to '20, very large volume
5 that's going to be turned back. It's nearly 700 gJs per
6 day.

7 MR. REDFORD: First of all, we're assuming for
8 modelling purposes that it's going to be turnback. We
9 won't know that those volumes are turnback until two years
10 prior to the term of the contract is up, or the contracts
11 are up.

12 We've assumed that we will get -- I mean, based on
13 what we've seen from the market so far, we assume that
14 we're going to see all the Dawn-Kirkwall capacity turned
15 back to us. To date, we've had about 1 pJ a day of
16 turnback come back to us on the Dawn-Kirkwall path.

17 For US northeast customers, it's no longer the
18 economic choice. Marcellus in particular has thwarted that
19 path. So we do expect to continue to see turnback when
20 it's available on the Dawn-Kirkwall path.

21 On the Dawn-Parkway path, the 22,000 in November of
22 '15 represents the turnback we received through the reverse
23 open season.

24 DR. HIGGIN: Mm-hmm.

25 MR. REDFORD: As part of this application. And then
26 we've estimated some turnback going forward, based on
27 analysis of flows into -- from our system into the
28 TransCanada system, looking at the balances of contracts

1 between the two systems.

2 And we've also estimated some turnback from power
3 customers.

4 DR. HIGGIN: Right.

5 MR. REDFORD: In the Dawn-Parkway numbers.

6 DR. HIGGIN: So just to tell us in big terms, over the
7 term of these projects and going forward to December '20,
8 your goal is to resell all of that turnback capacity to new
9 customers, basically, which we haven't yet seen in terms of
10 these applications? There are additional customers?

11 MR. REDFORD: No, and they would not be part of these
12 applications. However, there is a good indication out
13 there.

14 Enbridge completed their open season, received 930,000
15 gJs a day of interest.

16 We believe there is very strong interest in Dawn, in
17 the liquidity, the connection, interconnectivity to a
18 diverse set of supply basins, the take-away capacity, the
19 storage at Dawn, not only in Ontario but in Michigan, and
20 the transparency and the depth of the market at Dawn.

21 We believe it's an attractive market and people
22 continue to seek Dawn as a purchase point for natural gas.

23 And we've seen that for Enbridge in the open season,
24 that people -- there is incremental season in coming to
25 Dawn. And we believe --

26 DR. HIGGIN: Correct. But this particular application
27 deals with Parkway, which therefore includes service to
28 Parkway as being what we're talking about today.

1 MR. REDFORD: Correct. And people -- and people that
2 have that interest in Dawn will be shipping Dawn-Parkway,
3 to go to markets not only in Ontario/Quebec, but the US
4 northeast.

5 DR. HIGGIN: Okay. Thank you. Now, there's one other
6 component that might affect the demand at Parkway, and that
7 is -- if we could turn up your evidence, I'm afraid it's in
8 the other application, which is EB-2012-0433, and the
9 evidence there at page 50, paragraph 9. And perhaps we can
10 pull that up. I gave the Board Staff person, so it would
11 be quick. Here we are.

12 So this deals with what you would know as being the
13 Parkway obligations. And I'd just like to clarify from
14 you, this particular reference refers to winter 2014-15,
15 and then you indicate 0.64 pJs per day would increase;
16 correct? That's the number for that year?

17 And we're focussing on 2015-16, so the question is:
18 Would that 0.64 pJ per day change materially in 2015, 2016,
19 given Union's proposals to phase out the obligation?

20 MR. ISHERWOOD: So Union is working with a working
21 group on the obligation at Parkway, as probably most people
22 in this room know. We will be developing some evidence in
23 our 2014 rate case. And our proposal at this point in
24 time, still subject to finalization, is to use Kirkwall
25 turnback in 2016 and beyond to potentially offset and
26 eventually eliminate the Parkway obligation.

27 DR. HIGGIN: Right. So just to refer back, then, in
28 terms of the Kirkwall portion of turnback, do you have any

1 estimates of the amounts that would be turned back in 2015,
2 '16, '17, at this point?

3 MR. ISHERWOOD: Yeah. In the table that we just
4 looked at, at B1.UGL.Staff 10, is -- the Dawn-to-Kirkwall
5 numbers in the first line are the numbers available for
6 turnback.

7 DR. HIGGIN: Right.

8 MR. ISHERWOOD: And as Mr. Redford explained, we think
9 all of it will be turned back.

10 DR. HIGGIN: Okay. So that's in the line in the
11 previous exhibit that we looked at.

12 MR. ISHERWOOD: Yes.

13 DR. HIGGIN: Thank you very much.

14 So I'd now like to move on with a couple of questions
15 on the -- well, I have one final question on that
16 application, and that's to Parkway D, just the compressor.

17 Just tell me what compressor or units or other assets
18 will provide LCU for Parkway D when it's installed.

19 MR. RIETDYK: So Parkway C, the LCU compressor will
20 also provide the coverage for Parkway D.

21 DR. HIGGIN: So the costs that are being incurred for
22 Parkway C are to both reinforce A and B?

23 MR. RIETDYK: That's correct.

24 DR. HIGGIN: But also D as well?

25 MR. RIETDYK: That's correct.

26 DR. HIGGIN: Okay. That's a very important piece of
27 information. Thank you.

28 So moving on to the other application and to the

1 Parkway C compressor, first of all I'd like to say that
2 myself and my clients remain in the camp that a Parkway
3 CLCU is required, and our issues are mainly related to
4 timing and cost.

5 So could you turn up the evidence at section 6,
6 paragraph 3? This is 433 evidence I'm referring to.

7 And I just orient us to say that at the existing --
8 and I think that's the key -- Parkway stations south of 407
9 or thereabouts, the gas flows to two delivery points. And
10 it's shown in paragraph 3 of this extract?

11 MR. RIETDYK: That's correct.

12 DR. HIGGIN: That's correct? And the Enbridge system
13 is the second one, and that flows to Lisgar and other
14 places; correct?

15 MR. RIETDYK: That's correct, but not through the
16 compressor.

17 DR. HIGGIN: That's correct, not through the
18 compressors. Correct.

19 So section 6, if you carry on to pages 56 and 57 --
20 thank you. And paragraph 11, please.

21 It shows the capacities there that we've discussed
22 yesterday, and basically the amount that you will deliver
23 into the Mainline, and then the amounts from each of the
24 two compressors. That's the context.

25 Now, yesterday I had some confusion on numbers that
26 are being thrown around as to the capacities that are
27 actually have happened and are forecast to happen at the
28 existing Parkway site and the compressors. And if you

1 could turn up the reference I'm starting from, that would
2 be the transcript, volume 1, page 149, where Mr. Redford is
3 talking to Mr. Aiken.

4 You have that? I don't know where that is. It's the
5 transcript yesterday at page 49 (sic).

6 MR. REDFORD: I have that.

7 DR. HIGGIN: You have that, Mr. Redford? Thank you.

8 MR. REDFORD: I do.

9 DR. HIGGIN: What I'd like to know, and this is
10 because some of the numbers move around only by .1 or .2
11 pJs, but they move around in your evidence, and I'd like to
12 get them straight. Once and for all I'd like to get them
13 straight, if possible.

14 So could you please give me an undertaking to do that,
15 starting with your number, which is, for example, 2010,
16 which is 1.9 pJs per day, correct? That's what you said to
17 Mr. Aiken yesterday?

18 MR. REDFORD: Yeah, I believe it's around 1.9, yeah.

19 DR. HIGGIN: And then could you do that right through
20 to 2015, and tell us what either the actual or the forecast
21 design-day quantities would be? And I looked for an IR
22 there, because I thought there might be one, but I didn't
23 find it. So either you can, through this undertaking,
24 refer me to that, or you could provide the numbers.

25 MR. REDFORD: I can't believe that the numbers aren't
26 somewhere in the evidence. And they're probably in
27 multiple places. I don't know that we have a chart that
28 lays out '10, '11, '12, all the way through, so --

1 DR. HIGGIN: I think that would be very helpful to me.
2 If you can find a chart that's already there, fine. But it
3 would be very helpful to know those numbers.

4 MR. SMITH: If there isn't a chart, we'll create one,
5 of the numbers.

6 DR. HIGGIN: Thank you. That would be an undertaking.
7 Thank you.

8 MR. MILLAR: J3.1.

9 **UNDERTAKING NO. J3.1: TO CREATE A CHART OF ACTUAL OR**
10 **FORECAST DESIGN-DAY QUANTITIES**

11 DR. HIGGIN: Now, my final few questions relate to the
12 costs, and I'm going to try and keep this at a high level,
13 because it may be that if we get into too much detail it
14 should be Mr. Isherwood's next panel, as he said yesterday.

15 Anyway, let's go with that. And can you pull up,
16 please, K1.3. And I'd like to look at page 3, which is the
17 map you provided us yesterday. That is page 3. It shows
18 the site plan. Thank you.

19 Now, just to orient us, on the right-hand side of the
20 map, that's the existing site where Parkway A and B
21 compressors, amongst other facilities, are located,
22 correct?

23 MR. RIETDYK: That's correct. To the east of Highway
24 407.

25 DR. HIGGIN: And that's why you have to build the
26 NPS42 interconnect to supply to that point, correct?

27 MR. RIETDYK: Yes, to tie into TCPL at that point
28 to --

1 DR. HIGGIN: Thank you. So now, just looking at the
2 site, the site map, can you tell us what's happening on the
3 left side, or I think it's the north side, but the left
4 side of the site that's shown here? I think there is some
5 property there right now, et cetera.

6 So what is going to be done with that site, part of
7 the site?

8 MR. RIETDYK: So there's a number of different pieces
9 of this project that will be completed. So, you know, the
10 first thing that needs to be done is the site development
11 itself.

12 So right now it's farmland. There are some houses, a
13 barn. There is an existing creek that has to be restored.
14 So there's a fair amount of site work and preparation work
15 that has to be done in order to facilitate the construction
16 of the compressor and all the other infrastructure.

17 There's the -- you can see the two units. First of
18 all, there's the LCU compressor, plant C. That's
19 identified on the map. And immediately below that you'll
20 see plant D, which is the growth compressor.

21 There is the header system for the compressors, as
22 well as to the Enbridge measurement station, and
23 potentially a future TCPL station. There's room for that
24 over there as well. But that hasn't been contemplated at
25 this point in time, unless there is some discussions going
26 on between TCPL right now and ourselves about whether it's
27 a 42-inch interconnect or whether they'll take gas at that
28 site, but really from a cost perspective it's pretty

1 neutral for us, so it really doesn't matter whether it's a
2 42-inch interconnect or a measurement station, but those
3 discussions are going on with TCPL.

4 DR. HIGGIN: My other question is that you talked
5 yesterday to Mr. Aiken about the new capital cost estimate
6 for the site. As I understand it, leaving aside compressor
7 D, the Parkway West has now gone up to \$219 million capital
8 cost, correct?

9 MR. RIETDYK: Yes. 219.43.

10 DR. HIGGIN: Thank you very much for being precise.
11 Thank you.

12 So the point I'm making now is, you will be aware that
13 my client and other intervenors do not necessarily agree
14 with allocating all of the site development costs to the
15 LCU. You will be aware of that from previous IRs and from
16 technical conferences and so on.

17 MR. RIETDYK: Yes, we're aware of that.

18 DR. HIGGIN: So basically, the site development costs
19 now updated according to the evidence update in our
20 estimate is \$103 million. That's the basic site
21 development costs. Am I roughly correct on that?

22 MR. RIETDYK: Yes. So if we didn't have the LCU
23 compressor and we needed to just put the growth compressor
24 there, there will be another 103 million required for
25 infrastructure for that site development.

26 DR. HIGGIN: That's correct. So leaving aside that
27 matter for argument, because we can't solve it here, we
28 will obviously be taking a position that some of those site

1 development costs should be allocated to the Parkway D, and
2 as you've just said, Parkway D also uses the LCU as its LCU
3 itself to provide backup, correct? Is that -- am I correct
4 that --

5 MR. RIETDYK: Yes, the LCU would provide reserve
6 capacity for Parkway D as well.

7 DR. HIGGIN: Thank you. So my time is now up, and so
8 I think I will leave my other question, which is an impact
9 question of revenue requirement, rate impact, to the other
10 panel. So I can stop here.

11 Thank you very much.

12 MS. CHAPLIN: Thank you. Mr. Quinn, are you next?

13 MR. QUINN: Yes, I am, Madam Chair.

14 MS. CHAPLIN: And I have you for 35 minutes?

15 MR. QUINN: Yes.

16 MS. CHAPLIN: All right. Thank you.

17 **CROSS-EXAMINATION BY MR. QUINN:**

18 MR. QUINN: And that could be very -- in a minor way,
19 relative to asking questions about the new agreement, so I
20 will try to manage my time in that regard.

21 I did provide, though, before things changed last
22 week, a compendium which is still applicable for some of
23 the background questions, and I think Board Staff has
24 copies and could give it an exhibit number.

25 MR. MILLAR: Yes. This is the FRPO compendium, so
26 it's K2.1.

27 **EXHIBIT NO. K3.1: FRPO COMPENDIUM**

28 MR. QUINN: And I understand the witness panel has

1 copies of the compendium?

2 MR. BIRMINGHAM: We do.

3 MR. QUINN: Just pause a moment while the Hearing
4 Panel receives theirs.

5 MS. CHAPLIN: Thank you. We have it now.

6 MR. QUINN: So I trust this will -- this, including
7 the compendium, is IRs or transcripts from this proceeding.
8 I've just provided it so that hopefully we can move through
9 this quickly.

10 So starting with page 1 of the compendium, we were
11 trying to seek an understanding of the original question we
12 had asked, and that was to look at alternatives to an LCU
13 compressor. In other words, can the existing
14 infrastructure that is available in North America provide
15 opportunity to provide backup or emergency response service
16 to Union Gas?

17 The clarification I'm trying to seek is highlighted in
18 the third paragraph in the response. And we had asked the
19 question about why a Dawn-to-Emerson service would be
20 required to balance at Dawn during a short-term critical
21 delivery scenario.

22 And in the highlighted section you're talking about
23 this alternative as having a two-step process. Do you have
24 that reference?

25 MR. ISHERWOOD: I do.

26 MR. QUINN: Okay. So I want -- first off, I can
27 understand in the context of this question where you're
28 looking to move gas from Dawn, basically this would be the

1 around the horn service that you've referred to in the
2 past?

3 MR. ISHERWOOD: I believe that's referenced there,
4 yes.

5 MR. QUINN: Okay. I want to just take a higher-level
6 view of this.

7 One of our concerns is possibly in trying to
8 understand your around the horn, which I'll get to in the
9 next part of our examination here.

10 I wanted to step back and say: Is it possible that
11 you could contract for an emergency service that does not
12 originate at Dawn but originates at Empress?

13 MR. ISHERWOOD: No.

14 MR. QUINN: And can you help me understand why that
15 would not be feasible?

16 MR. ISHERWOOD: The purpose of the service is to
17 replicate an LCU. So even in the first instance, the
18 question around being a short-term solution, in order to
19 replicate the LCU it has to be a long-term, long-term being
20 a month, a season, possibly longer.

21 So in that case we have to find, I guess, call it a
22 permanent solution to the gas that's otherwise coming to
23 Dawn. The issue with an outage at Parkway is gas is
24 trapped at Dawn; it can't go from Dawn through Parkway to
25 market. So it's basically trapped on our side of the
26 compressor. So to get it on the other side of the
27 compressor, if you don't have a physical compressor to do
28 that, you need to find either a contractual or a physical

1 way of moving the gas from Dawn to the other side of the
2 compressor.

3 And what this example that TCPL brought up was trying
4 to get to was you would actually either backhaul physically
5 or through an exchange from Dawn to a point, either
6 Emerson, which is in Manitoba, or Empress, which is
7 Alberta.

8 Otherwise, you have the 1.1 pJ per day of capacity
9 that the LCU provides. You have 1.1 pJs a day stuck at
10 Dawn, and it has to go somewhere. It just can't pile up
11 there. There's nowhere for it to go. So you have to find
12 a service or a physical path for 1.1 pJs to get to the
13 other side.

14 So the example that -- in the evidence in section 10
15 of EB-2012-0433, there are two different examples that TCPL
16 brought forward. One was an exchange service, which was
17 basically you just take a contractual obligation with a
18 marketer or some other market participant, or secondly, do
19 a physical backhaul on Great Lakes. But in both instances
20 you're actually moving, physically moving, 1.1 pJ a day
21 from Dawn to Emerson or Empress.

22 MR. QUINN: In an emergency situation whereby you have
23 lost compressor and there is firm service at risk of not
24 being supplied, would you not undertake to consider a
25 service whereby you would balance the molecules at a later
26 date?

27 MR. ISHERWOOD: No, because we're trying to find an
28 alternative that replicates the LCU.

1 MR. QUINN: So when you say "replicates the LCU," you
2 are talking about -- your baseline premise for that is it's
3 months of outage?

4 MR. ISHERWOOD: We have to cover the case where it
5 could be months; that's correct.

6 MR. QUINN: But if we're looking for a stopgap
7 solution that would bridge us for a year, you're still
8 saying that your position is that that must be in place to
9 have the worst-case scenario of the compressor being out of
10 service for months?

11 MR. ISHERWOOD: That's correct. Our proposition here
12 is that the gas volumes going through Parkway are
13 significant enough now that Parkway has become critical
14 infrastructure. And we need to find a way to be able to
15 protect that infrastructure for the GTA and the rest of
16 Ontario and Quebec markets. So you need a physical
17 solution to move that gas.

18 MR. QUINN: All right. Well, I think I'll limit my
19 discussion with you in that area.

20 If you could turn to page 3 of the compendium, I've
21 enclosed Exhibit JT2.5, and this does directly look at the
22 around the horn service. I just want to get the
23 background.

24 In that request, we had asked to provide a comparison
25 using commodity and fuel gas service of the around the horn
26 versus a direct path from Dawn to Parkway.

27 In the response, we received on the next page in
28 attachment 1 the costs of around the horn.

1 Now, first off, I understand that the toll that is
2 provided, that includes demand charges also for the pipe in
3 method 2, and method 3 for that matter?

4 MR. ISHERWOOD: Yeah, it would be the full cost. It
5 would be demand and commodity.

6 MR. QUINN: Okay. We had asked, though, just for the
7 commodity and fuel gas costs. Is it possible you could
8 update that exhibit with only commodity costs and not
9 demand costs as requested?

10 MR. ISHERWOOD: Just looking at path 1, which is Dawn-
11 Emer CDA, the toll, the 22 cents is basically all demand,
12 and the fuel would be the commodity portion of that.

13 And I'm not sure on the Great Lakes system if there's
14 commodity, but the next table, 2, primarily would be -- the
15 commodity portion would be the fuel portion.

16 MR. QUINN: But there would be commodity costs, and
17 that's what we're asking for. We're asking for an
18 incremental analysis, not a fully allocated cost analysis.
19 So to the extent that you want to change method 1 and
20 method 2 and 3, we're asking for the demand component to be
21 stripped out. Can you provide that response?

22 MR. ISHERWOOD: I think to do a fairer comparison you
23 need to include the demand costs; that's part of the cost
24 of going on these different paths.

25 MR. QUINN: And I appreciate that that's your
26 position. We're trying to understand if the existing
27 assets are in place -- on an incremental analysis, we would
28 like to understand what the impact would be. So could you

1 provide commodity and fuel rates only for the different
2 methods?

3 [Witness panel confers]

4 MR. SMITH: Well, I guess the question is: Is it
5 possible? We already have the witness's evidence as to the
6 relevance of the comparison. I guess the question is:
7 Does the Board want the information?

8 Obviously the witness's perspective, the evidence is
9 that it wouldn't make for a meaningful comparison. But I
10 suppose if the request is made and the Board wants the
11 information, we could probably provide it.

12 MS. CHAPLIN: Well, it doesn't sound like it's a
13 difficult thing to do, so I think on that basis we'll go
14 ahead and grant the undertaking, but the witnesses are free
15 to add whatever explanation they'd wish as to the
16 likelihood or applicability of the analysis.

17 MR. MILLAR: J3.2.

18 **UNDERTAKING NO. J3.2: TO REMOVE DEMAND COMPONENT FROM**
19 **METHODS 1, 2 AND 3, AND PROVIDE ONLY COMMODITY AND**
20 **FUEL RATES.**

21 MR. QUINN: Thank you.

22 MS. CHAPLIN: Thank you.

23 MR. QUINN: If I could ask the witness panel to turn
24 up page 5, which is the JT2.3?

25 Included behind that -- I don't think -- well, to the
26 extent that you would like to, the following pages, next
27 three pages or so, is a transcript which led to this
28 undertaking. My specific question is: We did receive a

1 response in terms of the degree days was 30.3, but our
2 question asked:

3 "And what percentage utilization would Union
4 project for this day?"

5 There was a caveat provided in the transcript that
6 basically speaks to making sure the full contracted
7 deliveries are maintained. And so we were still looking,
8 though, for the percentage utilization for a day that meets
9 that criteria.

10 Could Union provide that utilize -- that percent
11 utilization?

12 MR. RIETDYK: Sorry, so what you're looking for is the
13 actual percent utilization versus what was used that day?

14 I just want to be clear on what you're asking, Mr.
15 Quinn.

16 MR. QUINN: In our discussion, Mr. Rietdyk, in the
17 technical conference, you had qualified this by essentially
18 saying: We would still have to meet the contracted demands
19 that you have contracted for with ex-franchise customers.

20 So my understanding from that is you would use the
21 volumes that are evident on that day, from the 30.3 degree
22 days, but then you would add to that additional volumes to
23 meet the contracted demands for your ex-franchise
24 customers, therefore calculating a percentage utilization
25 in that scenario?

26 You've told us that the simulation was within 1.5 of
27 the actual conditions for the day, but we're still looking
28 for what that more extreme utilization would be if you had

1 fully contracted demands from your ex-franchise customers.

2 MR. RIETDYK: Right. So I can provide some of those
3 numbers now, if you would like.

4 MR. QUINN: Sure.

5 MR. RIETDYK: So based on the full contract demand for
6 a 30.3 degree day, the horsepower utilization would be
7 projected at 93.2 percent. Now, of course the flows
8 weren't full contracted demand on that particular day.

9 So I'll give you a couple more numbers here as well.

10 So based on the flow that was actually going through
11 the station that particular day, we -- and the full
12 contracted demand at Kirkwall, we would have projected at
13 87 percent utilization for Parkway.

14 But the big swing on January 23rd was actually that we
15 weren't exporting at Kirkwall. So the projected flow of
16 500,400 gJs per day was not being exported. We were
17 actually importing at Kirkwall. So based on that, the
18 actual horsepower being used was 41,000 horsepower, or 58
19 percent utilization.

20 MR. QUINN: That's very informed --

21 MR. RIETDYK: Does that cover your...

22 MR. QUINN: Very informed, Mr. Rietdyk. Thank you
23 very much for the complete answer.

24 Moving on then, you can flip a few pages to the ninth
25 page, which is Staff IR. It's -- the reference is Exhibit
26 I.A3.UGL.Staff 18.

27 Now, there was some dialogue that occurred, just most
28 recently with Dr. Higgin, and I'm really trying to get my

1 ahead around this. So in the initial response, which dates
2 back to the June 7th, the highlighted section speaks to
3 Union's attempt to resell or repurpose turnback capacity.
4 And if not, they would, you know, potentially come back and
5 request a deferral account.

6 But if the -- in the response to this question, in the
7 last paragraph, if you flip the page, it says:

8 "During our 2014 to 2018 incentive regulation
9 term, assuming no delay in regulatory approvals
10 or downstream pipeline facilities, Union is at
11 risk for any M12 turnback that it is unable to
12 resell. Accordingly, there will be no impact on
13 in-franchise and ex-franchise rate as a result of
14 Union's next rebasing proceeding in 2019."

15 Is that Union's current position at this time?

16 MR. BIRMINGHAM: It is, Mr. Quinn.

17 MR. QUINN: Okay. I appreciate that there's still
18 pending approval, Mr. Birmingham, and so we accept that as
19 a condition. But as you were talking with Dr. Higgin, you
20 brought to the table another facet of the 2014 rates
21 proceeding, and that's the Parkway obligation. And you
22 were speaking to the potential of using that turnback as a
23 means to reduce the Parkway obligation for customers in
24 your franchise.

25 What I'm trying to get my head around, and it may be
26 something that needs to be explained in the undertaking
27 that you gave to Dr. Higgin, but it's essentially, you
28 can't use the capacity twice. If you're using it for

1 turnback -- or you are using the turnback to reduce the
2 Parkway obligation, would you agree with me it's then not
3 available as additional capacity for meeting your ex-
4 franchise needs that would be going through Parkway?

5 MR. ISHERWOOD: That's correct.

6 MR. QUINN: Okay. So when you were answering the
7 undertaking for Dr. Higgin, I would request, I guess, under
8 that undertaking -- I think it makes sense -- that you
9 specify what conditions you're presuming, in terms of
10 turnback and the utilization of that turnback?

11 MR. ISHERWOOD: Sure. We can do that.

12 MR. QUINN: Okay. I think it would be helpful,
13 because that's part of the confusion, I think, that's going
14 on for people, is how much is actually being designed for.
15 And we'll get to the design panel possibly later today.
16 But there's assumptions that are feeding into your overall
17 numbers that are really, at this time, murky, if there are
18 different scenarios at play.

19 MR. ISHERWOOD: That's correct. But I just say that
20 for the 2015 year, which this hearing is about, and the
21 facilities in this hearing, '15 is crystal-clear. It's
22 really '16 to '19 where we have some optionalities still.

23 MR. QUINN: And that's probably a good segue into,
24 we're looking at the world as we move forward. And so I'm
25 going to finish with this compendium and move, if I may, to
26 Exhibit K1.1, the settlement terms sheet.

27 Now, the first question is just a general question,
28 because it came up in discussion with other intervenors as

1 we were trying to get our heads wrapped around this
2 proposal.

3 But the Eastern Ontario Triangle as defined yesterday
4 better in my mind, my assumption is that it does not
5 include TCPL contracts on the Dawn-Parkway system. Is that
6 a correct assumption or not?

7 MR. ISHERWOOD: Actually, the agreement does include
8 the TBO transportation by others on both Union and TQM.

9 MR. QUINN: So it's contemplated then, TCPL's capacity
10 from Dawn to Parkway is included in the service that may --
11 that would be receiving a surcharge?

12 MR. ISHERWOOD: I'd say the path from Dawn to points
13 east using TCPL services would include the surcharge. TCPL
14 does offer services from Dawn to points east, and using the
15 Union Gas system as a TBO.

16 MR. QUINN: But clearly then, if it was just taking
17 the gas from Dawn to Parkway for whomever has contracted
18 with them that way, it would receive a surcharge then.

19 MR. ISHERWOOD: That would be my expectation.

20 MR. QUINN: Would the Union Gas M12 capacity get a
21 surcharge?

22 MR. ISHERWOOD: No, and in fact, you know, even today,
23 if you look at the Union Gas M12 rate, Dawn to Parkway,
24 relative to TransCanada's rate, Dawn-Parkway, Union Gas is
25 quite a bit cheaper, just because the two tolling
26 methodologies are different. So customers that do use Dawn
27 to Parkway to points east will often contract Union Gas
28 independently.

1 MR. QUINN: So wouldn't that -- under what's
2 contemplated in this settlement terms sheet, wouldn't that
3 just exacerbate the difference between a Union Gas and a
4 TransCanada service from Dawn to Parkway?

5 MR. ISHERWOOD: The two are tolled quite
6 independently, so they will be -- they will always be
7 different.

8 MR. QUINN: Okay. Well, maybe we need to understand
9 the settlement agreement further, because that certainly
10 has some potential implications.

11 But getting back to the overall surcharge, and I was
12 very encouraged that in discussions with Mr. DeRose
13 yesterday I heard Union agree to provide some calculations
14 of the potential surcharge.

15 First off, does that surcharge stay in place beyond
16 2020?

17 MR. ISHERWOOD: So the surcharge is to recover
18 upstream -- upstream under-recoveries or upstream
19 deficiencies on the TransCanada system, on the Prairies
20 line and the Northern Ontario Line, and I view it as being
21 a liability that accumulates between 2015, beginning of
22 2015, to the end of 2020.

23 So that's the period where we actually incur the
24 liability. But the recovery of that is spread out from
25 2015 to 16 years later.

26 MR. QUINN: Okay. So it would be in place for the
27 total 16-year term.

28 MR. ISHERWOOD: That's correct. Just on the Eastern

1 Triangle.

2 MR. QUINN: Right. Well, I guess I had prepared a
3 significant review of these numbers, and asking the panel
4 for the numbers, so again, in terms of efficiency, since
5 Union has offered to provide the calculations, what we
6 would request, in terms of specificity, is that the
7 calculations that are made provides both the long-haul and
8 short-haul tolls to both the CDA and the DEA from the
9 respective points of Empress and Dawn.

10 Was that what Union was prepared to provide?

11 MR. ISHERWOOD: Yeah, I think it would be a complete
12 toll, not a -- TCPL has -- TCPL's complete toll set has
13 pages and pages and pages, but to your point, there are
14 some critical paths that need to be looked at, and we can
15 definitely cover those.

16 MR. QUINN: Okay. That's helpful, and that's what we
17 would be expect -- what we would benefit from.

18 The final request in that -- and this may be a
19 different undertaking, or it could be lumped in the same
20 one -- is, are these tolls going to be -- or could you
21 provide a scenario that provides the expected toll that
22 includes the Energy East project; in other words,
23 TransCanada's removal of the 42-inch line to move to oil
24 service?

25 MR. ISHERWOOD: No. No, there's disagreement between
26 TransCanada and the utilities on that point, and although
27 we're still talking and hopefully we'll find a resolution,
28 at this point there is no resolution.

1 MR. QUINN: And I understand the timing impact, and
2 this is where we may be challenged, in terms of the
3 evidentiary portion of this proceeding versus what moves
4 forward with the NEB.

5 Our challenge, though, is as Ontario ratepayers we'd
6 be potentially supporting a proposal that has a 16-year
7 impact, with one year of tolls, that does not necessarily
8 include what the impact would be of Energy East. I think
9 it would be helpful to understand what the big picture is
10 if, at least in terms of a range of impact, if Energy East
11 leaves -- the pipe that's attached to Energy East leaves
12 the system, that's going to substantially change the
13 expected tolls, and I think it would be very informative to
14 understand what that impact might be.

15 Is there any way that impact can be estimated?

16 MR. SMITH: I think, Mr. Quinn, or members of the
17 Board, it may be better for us to reflect on the question.
18 This is a billion-dollar issue, and it's TransCanada's
19 information about a TransCanada project that may happen if
20 NEB approval is granted for 2017.

21 I'm not sure that -- what we can do, but rather than
22 be entirely unresponsive, I think maybe we should try and
23 take it away and think about the question, its relevance to
24 these applications, and if there's some way we can be of
25 assistance or not, and maybe chat with Mr. Quinn. And
26 we'll be back, I guess, with some position on October 1st.

27 MS. CHAPLIN: All right. Well, why don't we give it
28 an undertaking number, just to track it?

1 MR. MILLAR: J3.3.

2 **UNDERTAKING NO. J3.3: TO PROVIDE CALCULATION OF**
3 **EXPECTED TOLL WITH ENERGY EAST PROJECT INCLUDED.**

4 MS. CHAPLIN: Thank you. So you'll either provide
5 some sort of answer before or in writing or through that
6 panel? Okay. Thank you.

7 MR. SMITH: As to what we can or cannot do.

8 MR. QUINN: Thank you for your consideration of that
9 calculation.

10 The one final request I had -- and it relates to the
11 offer that Union did make to Mr. DeRose to provide the
12 numbers -- is that it would be very helpful to us and I
13 believe to the Board if the numbers that are provided would
14 be provided ahead of the panel, as opposed to spoken from
15 the witness panel on that day. That way, we can look at
16 the calculations and get our heads around the assumptions
17 that are being made.

18 MR. ISHERWOOD: We will do our best.

19 MR. QUINN: Okay. Thank you. Now, I wanted to, in
20 the final few minutes I have, speak, if I may -- and I
21 apologize, Mr. Henning; I can't see you, but if you would
22 bear with me. And I'd like to understand, again, the work
23 that you've done in this proceeding.

24 One of the concerns I had yesterday, you had referred
25 at one point to gas being \$2 at -- you know, at Empress or
26 in Alberta. Would you agree with me that that is not the
27 expected cost of gas going forward?

28 MR. HENNING: Yes. I would agree with you that the \$2

1 level is not sustainable with the development of the
2 resource in Western Canada. It would be necessary to have
3 gas able to move east into Ontario.

4 MR. QUINN: Thank you.

5 Would you take, subject to check, that the cost of gas
6 going forward, starting as early as this November, on an
7 annualized basis is closer to \$3.50? \$3.50 Canadian per
8 gJ?

9 MR. HENNING: I've not seen that particular number in
10 a forward curve, but subject to check I can look at some of
11 those.

12 MR. QUINN: Okay. Well, what I'm trying to establish
13 is \$2 -- and I think you've said it -- is a temporary
14 condition, not sustainable, and the real figure that we
15 should be considering in terms of the economics of this
16 project is closer to the \$3.50 level.

17 MR. HENNING: Just to clarify, you're talking about a
18 forward curve number for this winter at Empress or at AECO,
19 or what is it you're referring to? Do you have something
20 that you could show me?

21 MR. QUINN: I have the information for the market, but
22 simply put, if you use the AECO price and just establish --
23 maybe the best way of doing it is, as I move forward, I
24 wanted to draw your attention back to your contracting
25 analysis that was updated in table 3.7. So it's in the
26 evidence addendum that was provided on the 23rd of August.
27 And you spoke to that table yesterday, I think in
28 discussion with Mr. Brett.

1 Are you familiar -- yes, thank you. Somebody's
2 quicker than I am at pulling it up.

3 MR. HENNING: Yes. I'm there.

4 MR. QUINN: Okay. So what you have is a November 2015
5 to October 2025. So why don't we just -- for simplicity,
6 you can help us with, potentially by way of undertaking --
7 provide what the AECO number that was the basis -- or,
8 sorry, the Empress number that is in your table, what the
9 Empress number was that you used for the basis for those
10 tables.

11 MR. HENNING: Yes. We can provide that as an
12 undertaking.

13 MR. MILLAR: J3.4.

14 **UNDERTAKING NO. J3.4: TO PROVIDE EMPRESS NUMBER USED**
15 **AS A BASIS FOR TABLE 3.7.**

16 MR. HENNING: The point I would like to add to that,
17 though, is that, as I was discussing yesterday, in the weak
18 of the implementation of the NEB's new decision model
19 regarding the flexibility that TransCanada now has in the
20 pricing of interruptible transportation and STFT, short-
21 term firm transportation, we really are in a different kind
22 of environment than was reflected in these particular
23 calculations. And that's an issue that I was trying to get
24 to yesterday as well.

25 As you pointed out in your question -- and I can't see
26 around the corner either, but as you pointed out in your
27 question, the current price of \$2 we think is
28 unsustainable.

1 The resource development cost in western Canada is
2 actually, in our analysis, slightly inferior to the
3 resource development costs in shale formations in the
4 Marcellus, and as a result of that, you won't get that kind
5 of development associated with it.

6 The issue and concern that we have, as I said
7 yesterday, is that the way that the basis will change
8 between AECO and at Dawn as a result of the decision model
9 will be not really consistent with the basis that we had
10 here, where we were talking about 98 cents, but in fact
11 will -- that basis itself will collapse.

12 It collapses because as more firm transportation
13 capacity is put on to TransCanada, the cost of moving gas
14 from AECO to Dawn is no longer the fully allocated toll,
15 the \$1.42 that's envisioned in the decision model, but
16 rather it's only the fuel component of it.

17 So what happens in this -- and my concern, my real
18 concern for Ontario -- is that if you were forced to move
19 back and contract long-haul to Empress and to get gas
20 supplies at AECO, the basis collapses to something on the
21 order of maybe 40 cents to 60 cents. And I would say that
22 for the longer term, ICF's view is in order to develop
23 those kinds of resources at AECO, you probably do need a
24 price of something between \$3.50 and \$4.

25 So the problems is that consumers in Ontario, who
26 still pay the demand charges if you're forced all the way
27 back to AECO and Empress, will wind up paying \$3.50 to \$4,
28 plus the \$1.42, for the full cost of the commodity being

1 delivered at Dawn. And it's a little higher even if you go
2 further downstream.

3 By contrast, when we make the comparisons as to what's
4 available and what I think we all hope is now going to be
5 able to be contracted through the Parkway-to-Maple
6 constraint as a result of the settlement term sheet, is
7 that you have the option and ability to contract for much
8 lower gas prices along that path.

9 So yes, I'll be happy to do the undertaking associated
10 with what the calculations were here, but I think it's
11 important to recognize the nature of the decisions.

12 And the final thing that I'll just put out there is
13 we've already seen 1.4 petaJoules of new firm
14 transportation capacity, long-haul FT contracted at
15 Emerson. So we're already on the road to moving towards
16 that kind of world. And we now have to establish it where
17 we have the availability to move the more economic supplies
18 of natural gas into Ontario.

19 MR. QUINN: Thank you for the fulsome answer. I'm
20 trying to break this down into manageable chunks. Working
21 backwards, the 1.4 petaJoules that you referred to at
22 Emerson, is that information embedded in these contract
23 analyses that are in Exhibits 3-7 and 3-8?

24 MR. HENNING: No, that information is available in the
25 record of the NEB proceeding I was in last week.

26 MR. QUINN: Okay. So we have some updated information
27 there, but very importantly for the proceeding we have
28 here, we have updated information in terms of a deal that

1 would ultimately, if these facilities are approved,
2 increase the opportunity of flowing gas from the Niagara
3 area or through Dawn and up through Parkway.

4 What I would ask by way of undertaking, could these
5 exhibits be updated for the information you have at Emerson
6 that you referred to the 1.4 petaJoules and the expectation
7 that these applications are approved, what would the
8 resulting impact be on these tolls?

9 MR. HENNING: I'm thinking about that question. It's
10 very difficult because, as has been made clear, we don't
11 have the true tolls impact, and that won't be available, at
12 least on the estimated level, until sometime later. And
13 Mr. Isherwood can comment a little bit about the
14 expectation of timing on that.

15 I certainly by way of undertaking can give an analysis
16 that talks about the elements of the dynamics in the
17 marketplace, but I'm not sure it could be a complete
18 quantification at this time.

19 MR. QUINN: And I understand that that may have to
20 wait til around the October 1st timing when the data is
21 provided, but if the data were provided in terms of the
22 expected, not the precise but the expected, range of tolls,
23 would you then be able to complete that analysis?

24 MR. ISHERWOOD: I would just add, and it came up
25 yesterday as well, I guess, but the relationship between
26 the long-haul and the short-haul is not changing, so the
27 example I gave yesterday was 50 percent of our short-haul
28 toll is 12 cents. So if short-haul goes up by 12 cents,

1 long-haul goes up by 12 cents. There's no change to
2 savings.

3 MR. QUINN: Well, maybe I can ask Mr. Henning, based
4 upon what you've provided, in terms of the cost of moving
5 gas -- moving to the marginal cost, will that affect the
6 cost of gas at Dawn, as first off?

7 MR. HENNING: The answer is, over any period of
8 averaging time I do not believe that it will. Anytime you
9 have changes in the dynamics in the market, you can get
10 certain deviations that are in the short-term. But really
11 what we're talking about here is a dynamics that would
12 potentially increase the activity of commodity transactions
13 going through Dawn from the various production areas.

14 So Dawn will be attracting gas from the Marcellus,
15 Dawn will be attracting gas coming up through Chicago that
16 may have originated from the Haynesville or from the Eagle
17 Ford shale formations, other shale formations, and it will
18 draw more activity through Dawn.

19 And it also, within the dynamics, I think will
20 increase the throughput from Dawn into the triangle and
21 then back into the northeast United States.

22 It's a complicated modelling exercise that we haven't
23 been -- well, we've been talking about it at ICF, but we
24 haven't had a case that we wound up doing that. But I
25 would say that from the analysis that I've seen of the
26 terms sheet, I'm really not expecting it to have much of a
27 change, in terms of the basis differential between Henry
28 Hub and Dawn.

1 I think it will likely have some changes, in terms of
2 dynamics that are, say, between Dawn and Iroquois, but
3 that's not really the issue regarding the calculations of
4 the savings, in terms of gas costs to energy consumers.

5 And as Mr. Isherwood said, if the delta in the tolls
6 occurs in a way that's set that it's equal, the real
7 question is, what do you get in terms of the differences
8 between Dawn and AECO, either with the settlement or
9 without the settlement?

10 And I'm concerned that in fact without the settlement
11 you'll get a collapse in the basis that increases the
12 delivered cost in Dawn -- in Ontario, because you'll
13 disconnect Dawn in that way.

14 With the settlement, you'll draw the gas through Dawn,
15 remain connected, and wind up having lower delivered gas
16 costs than you would have absent the settlement.

17 MR. QUINN: Okay. I'm going to try to wrap this up,
18 and with your help I think I can in my time.

19 You mentioned you don't think it will impact Dawn.
20 Will it impact the cost of gas at Niagara?

21 MR. HENNING: Well, right now, today, Niagara is not a
22 liquid trading point. If you look at the Platts Gas daily,
23 it very rarely is trading. So it's hard to say exactly
24 what the commodity value is there. You no longer have
25 transparent reporting there.

26 Will it affect the cost of gas through Niagara, as
27 it's reflected in either Dawn or up to Iroquois? I
28 wouldn't -- I wouldn't suspect it did very much.

1 MR. QUINN: Well, I'd have to defer to your expertise,
2 so I'm going to not challenge that statement, but maybe
3 move to the undertaking that I ultimately would like, and
4 that is for this analysis to be reviewed in the context of
5 the deal that has been struck and, if available, because I
6 had asked for that and Union's going to consider it, what
7 the tolls would be as it currently is constructed in the
8 deal, and then what it would be if Energy East moves
9 forward.

10 We would certainly want to rely upon your expertise,
11 since you are engaged in this proceeding, to help us with
12 what the world could look like in 2017.

13 So would you, subject to Union's provision and
14 discussions with your client, be able to provide that
15 undertaking to redo the analysis for Exhibit 3-7 and 3-8,
16 with the current deal, and then with or without Energy
17 East?

18 MR. HENNING: I would like to be as helpful as I can
19 to the Board. I am concerned that we will not have an ICF
20 base case that I can rely upon to look at that basis within
21 the time frame that's being envisioned for this proceeding.

22 I certainly will do what I can to describe the
23 dynamics that I've shown here, but I am concerned that I
24 won't -- I frankly won't have the inputs.

25 And I also have to say that it's -- what you're
26 talking about is a fairly significant piece of work that
27 would have a not inconsequential level of effort associated
28 with it. So we'll have to talk to Union about that too.

1 MR. QUINN: And I respect it, and that's why I guess I
2 put the caveat on, so I guess I'll turn to Mr. Smith and
3 ask if this could be considered also, given that we are
4 talking a billion dollars of assets in Ontario, an
5 investment in -- looking at the best information we have at
6 this time and what the corresponding economics will look
7 like I think would be helpful to us and to the Board.

8 MR. SMITH: Well, we'll reflect on the request. I
9 mean, there's two things going on. You have information
10 already from Mr. Henning, not just in answer to the
11 question but also describing the amount of work.

12 I guess the part that's missing is the extent to which
13 the analysis bears on the requests or the application here
14 today. And that's the part I think is not yet connected,
15 at least not as I heard it.

16 So I heard a request for more information, but I
17 didn't hear, ultimately, that the information is going to
18 move the dial on what the projected savings are. And
19 that's the part where I have -- we have to balance that
20 against what sounds like is going to be a lot of work.

21 So, you know, I hate to say no to these things, so
22 maybe this is something that we again take a look at. But
23 it's going to be a lot of work, it sounds like, and it
24 doesn't sound like it's going to move the dial. But we can
25 take it away and we can talk about it.

26 MR. QUINN: My understanding, Mr. Smith, is your
27 company's contention is that this deal and things that are
28 going on really don't affect the economics. We have an

1 expert that you've retained that would help us to, even at
2 a qualitative level, determine what the impacts could be
3 for Ontario. And I think it would be helpful, and it may
4 reaffirm what you're telling us, in terms of the economics
5 don't change. But in our view, there's a lot of dynamics
6 that are going on, and we have somebody here whose business
7 it is to understand these dynamics and to put analysis to
8 it that we can rely upon.

9 MR. SMITH: I understand. I was simply observing that
10 I had taken from the answer that he did not expect the
11 savings figures to change. But, you know, I can look at
12 the transcript.

13 We'll reflect on it. We'll talk to Mr. Henning about
14 what's possible.

15 MS. CHAPLIN: Okay. We will give that an undertaking
16 number, but the Board would be content with a qualitative
17 analysis. We think there would be -- I guess we're not
18 convinced of the significant value of an extensive re-
19 running of the model and the consequential analysis.

20 So let's start with the qualitative analysis, and then
21 if something compelling comes out of that, we can revisit
22 it, but I think that's where to start.

23 But yes, any side conversations that can happen, to
24 try and --

25 MR. SMITH: Help.

26 MS. CHAPLIN: -- resolve it would be appreciated.

27 MR. SMITH: Thank you.

28 MR. MILLAR: J3.5.

1 **UNDERTAKING NO. J3.5: ICF TO PROVIDE QUALITATIVE**
2 **ANALYSIS ON AN UPDATE TO EX 3-7, AND 3-8 (TABLES) THAT**
3 **DISCUSS DYNAMICS OF 1) TERM SHEET DETAILS, AND 2)**
4 **ENERGY EAST NOT PROCEEDING.**

5 MS. CHAPLIN: Are you finished, Mr. Quinn?

6 MR. QUINN: I'm just checking with my colleague here.
7 I believe I have exhausted not only my questions, but my
8 time. So thank you very much.

9 MS. CHAPLIN: Okay. I don't have an order at this
10 point, but I still have time from APPrO, Council of
11 Canadians, GEC, IGUA and Schools. And Staff. Is there an
12 order that's been agreed?

13 MR. POCH: I'm happy to proceed, Madam Chair, but it
14 doesn't really matter.

15 MS. CHAPLIN: And I have you for 15 minutes, Mr. Poch?

16 MR. POCH: Well, I think probably I'm going to
17 collapse my next panel into this -- questions into this.
18 I'm thinking they're all really for this panel. Hopefully,
19 that will mean nothing for the next.

20 MS. CHAPLIN: Okay.

21 **CROSS-EXAMINATION BY MR. POCH:**

22 MR. POCH: I should also say I kind of find myself in
23 the position of cross-examining on behalf of the old TCPL.
24 I think a number of us were relying on TCPL to do the heavy
25 lifting here in the old version of things.

26 And I haven't quite -- I'm anticipating we may be
27 getting some long answers because I'm forced to pose those
28 questions, so I beg your indulgence if that happens.

1 First of all, Mr. Henning, last day you were referring
2 to your exhibit, which was 4-1. And at page 9 and 10 there
3 were some graphics of what you were expecting in terms of
4 gas flows through Ontario. Perhaps we could just turn that
5 up.

6 And if I may ask you, can we just kind of summarize
7 this, that but for the growth that you're forecasting in
8 the power generation sector, it's holding reasonably
9 constant, and that the real -- as you say in your text,
10 it's really -- the change is being led by that change in
11 the power generation demand?

12 MR. HENNING: Yes. I would agree with that.

13 MR. POCH: Okay. You did indicate that your analysis
14 is done at a high level, a national or provincial.

15 Are you in a position to tell us where the power
16 generation loads are in Ontario?

17 MR. HENNING: In terms of specific geography, no, I'm
18 not. As I mentioned to you yesterday, we're not doing the
19 modelling there on a unit level. We're looking at it --
20 one point I would add to it that I probably should have
21 said yesterday is that some of the growth that we believe
22 is going to occur is actually going to be occurring in
23 distributed generation and combined heat and power
24 applications, both from a perspective of grid support as
25 well as individual customers.

26 MR. POCH: Thank you. And are you in a position to
27 tell us whether this -- is this growth increased
28 utilization by existing generators, or is this largely new

1 generators?

2 MR. HENNING: Well, as I said, we're not doing it at
3 an individual unit level.

4 MR. POCH: Right.

5 MR. HENNING: So the comment that I could make is that
6 when you're looking at it from the economic dispatch aspect
7 of it, incremental load growth may well come from some
8 increased utilization of existing units.

9 But as I said, there are also going to be combined
10 heat and power applications and others that are going to be
11 affecting the electric load usage of individual customers
12 too.

13 MR. POCH: So in short, you're not in a position to
14 give us any --

15 MR. HENNING: I can't give you a unit-by-unit --

16 MR. POCH: Can the rest of the panel assist with
17 either of those questions?

18 MR. ISHERWOOD: No.

19 MR. POCH: Okay. And I take it you're not aware of
20 where -- assuming -- well, I think it's a given you're not
21 familiar with where the electricity transmission concerns
22 are in Ontario that would dictate where the government may
23 wish to see gas plants, leaving aside political
24 constraints?

25 MR. HENNING: Personally, no, I'm not. My firm does
26 some work in that area, but I can't really comment to it as
27 an expert.

28 MR. POCH: Okay. Gentlemen, anybody else on the panel

1 can assist with that?

2 MR. ISHERWOOD: The question in terms of where new
3 plants are being built?

4 MR. POCH: Right.

5 MR. ISHERWOOD: We're aware of one, a TransCanada
6 plant being built near Kingston, and another greenfield
7 plant being built close to Sarnia, by Lambton.

8 MR. POCH: Okay. Thank you on that.

9 Turning to other matters, my next set of questions are
10 about the term sheet -- Mr. Isherwood, I have a hunch
11 largely for you, but pass them along to your colleagues as
12 needed.

13 I take it the term sheet survives even if the various
14 applications, yours and Enbridge's, are not approved in
15 this --

16 MR. ISHERWOOD: True.

17 MR. POCH: All right. And TCPL had filed evidence,
18 their supplementary evidence, prior to this new deal. And
19 that's their August 16 evidence, which -- if I can describe
20 it at a high level -- was a kind of -- you know, in effect
21 a kind of worst-case scenario under the current NEB rules,
22 where TCPL suffers a revenue loss due to these -- combined
23 effect of these projects, and it's visited on your
24 customers and Enbridge's and GMI's via the TSA variance
25 account that the NEB created.

26 And I paraphrased that, and Mr. Cabana was nice enough
27 to say I had it exactly right. I take it you don't
28 disagree with that assertion?

1 MR. ISHERWOOD: That was the general evidence of their
2 evidence, yes.

3 MR. POCH: Yeah. And there was of course -- the
4 certainty there was whether or not it would in fact -- that
5 hit that TCPL takes was going to be borne by TCPL
6 shareholders or by the shippers.

7 MR. ISHERWOOD: That was TransCanada's concern, yes.

8 MR. POCH: And that was -- and I take it that that is
9 -- that the view of that was in large measure why you were
10 able to -- you wanted to proceed with these projects
11 despite -- at the time you were prepared to proceed with
12 these projects, despite -- and leaving aside the LCU --
13 despite TCPL's concern, because you had some hope that you
14 wouldn't have to bear that full cost?

15 MR. ISHERWOOD: I think the position of the three
16 utilities really is to establish access back to new
17 supplies, for security of supply reasons and for economic
18 reasons.

19 MR. POCH: All right.

20 MR. ISHERWOOD: So the driver for the utilities has
21 always been to get access to Dawn and Niagara for our
22 customers.

23 MR. POCH: I understand. But just in terms of your
24 analysis, your view of what the economic impact that TCPL
25 was speaking to in their evidence, I take it that where you
26 would have differed with them -- am I correct that where
27 you differed from them was on the question of whether you
28 were going to get saddled with the full TSA, or whether

1 that was a question that was open to the interpretation of
2 the NEB's decision and ultimately what the NEB would choose
3 to do in the reality?

4 MR. ISHERWOOD: My view of that is the NEB has given
5 TCPL some tools to become more competitive. They were
6 given a very expedited process for developing new services
7 and getting them approved by the NEB. And we've talked
8 earlier about the pricing flexibility that NEB had given
9 TCPL as well.

10 So I think my thought and expectation, and I'm
11 thinking perhaps NEB's as well, is TCPL has new tools to
12 compete in the market. So to the extent they may lose some
13 money on the one side, they have other tools to regain
14 revenue on the other side.

15 And I think Mr. Henning referred to the incremental
16 1.4 pJ a day of firm capacity as a good example where TCPL
17 is being very effective at getting people to re-contract
18 for long-haul, and in some cases some short-haul.

19 So my own view, you just can't look at the
20 \$400 million in isolation. There's lots of moving pieces
21 here, including opportunity for new revenue.

22 MR. POCH: Okay. Part of the deal has TCPL making
23 this contribution, \$20 million a year for, I think, six
24 years?

25 MR. ISHERWOOD: That's correct.

26 MR. POCH: And there's an earnings-sharing mechanism
27 with a lower pivot point for the return on equity?

28 MR. ISHERWOOD: Yes.

1 MR. POCH: Do those two terms survive regardless of
2 what happens in these proceedings?

3 MR. ISHERWOOD: They do.

4 MR. POCH: All right. So you're going to enjoy that
5 benefit regardless?

6 MR. ISHERWOOD: Yes.

7 MR. POCH: Okay.

8 So I want to just look at that then, how the math
9 works now. You've spoken of it that you're going to -- the
10 intent is that the differential between short-haul and
11 long-haul is going to be maintained, whatever happens to
12 tolls, that the differential in dollars and cents, as
13 opposed to percentage, you expect -- you expect -- and the
14 intent is to try to maintain it.

15 MR. ISHERWOOD: That's correct.

16 MR. POCH: And what level is the expectation? I think
17 I heard \$1.45, roughly?

18 MR. ISHERWOOD: No, sorry, the expectation in this
19 element is a surcharge -- or an increase in the short-haul
20 tolls. We're going to do our best to try and keep that to
21 below 50 percent.

22 MR. POCH: No, I didn't mean the increase. I meant
23 what's the differential between short-haul and long-haul?
24 What are you expecting to hold?

25 MR. ISHERWOOD: Today, short-haul from Parkway to the
26 EDA is 25 cents, and I believe the long-haul path to the
27 RDA is \$1.65, I believe.

28 MR. POCH: Right. And that was -- so we're talking

1 about \$1.40 is the difference.

2 MR. ISHERWOOD: Today, correct.

3 MR. POCH: Today. Okay. And the intent is to try to
4 keep it at that scale?

5 MR. ISHERWOOD: That's correct.

6 MR. POCH: All right. TCPL cites in their evidence --
7 it's cited that Union's long-term forecast for the price
8 differential -- commodity price differential between Dawn
9 and Empress as 92 cents?

10 MR. ISHERWOOD: That's correct.

11 MR. POCH: You hold by that?

12 MR. ISHERWOOD: Yes.

13 MR. POCH: All right. So when you calculate your gas
14 savings, in simple terms you're saying -- you're looking at
15 the volumes that you can -- that these projects will allow
16 you to move from long-haul to short-haul. You're going to
17 save a \$1.40 on each cubic metre, and you're going to pay
18 92 cents more for the gas, and so the difference between
19 those figures is your gas savings. Is that right?

20 MR. ISHERWOOD: Yes, I think so.

21 MR. POCH: Okay. And so for every \$1.40 that you save
22 on transportation costs, TCPL loses \$1.40 in revenue,
23 roughly?

24 MR. ISHERWOOD: That's true.

25 MR. POCH: All right. Now, the first six years of
26 that you're going to be -- you and all shippers are going
27 to be making a bridging payment.

28 MR. ISHERWOOD: That's correct.

1 MR. POCH: And the intent of the bridging payment is
2 to bring TCPL's cost back up to the targeted rate of return
3 in the cost of service.

4 MR. ISHERWOOD: It provides them a fair opportunity to
5 recover their cost.

6 MR. POCH: Right. So isn't it fair to say that, for
7 every \$1.40 you save, \$1.40 is going to get added to the
8 bridging costs for those first six years?

9 MR. ISHERWOOD: So -- and again, looking at this
10 holistically, the benefit for the market in Ontario and
11 Quebec is to gain access to Dawn and to Niagara. And
12 that's for all customers, not just Union Gas and Enbridge
13 and GMI. It's for any customer, industrial or otherwise,
14 that wants to come back.

15 And in all cases there's economics around that. In
16 some cases, for industrials, for example, largely being
17 served from the secondary market, there is not a loss of
18 \$1.40. There's -- in their case they're getting a
19 delivered service typically from a marketer.

20 MR. POCH: Right. But all shippers pay the bridging
21 charge. That's the proposal.

22 MR. ISHERWOOD: All shippers would pay the bridging --

23 MR. POCH: All right. So for every shipper that's
24 able to do this, they save a buck 40, roughly? The
25 bridging --

26 MR. ISHERWOOD: Yes, between long-haul and short-haul.
27 And that example is given for Union Gas EDA. GMI would
28 have their own, but it would be all -- be similar.

1 MR. POCH: All right. But if you could just answer my
2 question. Every time you save \$1.40 for the first six
3 years, that's going to increase the bridging cost \$1.40,
4 because you've got -- TCPL's revenue is going to go down.
5 It's got to be made up somewhere to hold them whole.

6 MR. ISHERWOOD: Yes. The only thing I would add is,
7 the next step that we need to do as a group for our
8 companies is to kind of look at that period, that six-year
9 period, how much gas is going short-haul versus long-haul,
10 and that is why that work is still underway. We don't know
11 the final toll determination yet, but that will all be
12 calculated as part of those tolls.

13 MR. POCH: So to the extent you don't know how much is
14 going short-haul versus long-haul, then your gas savings
15 expectation numbers that you've provided this Board are
16 uncertain. That all goes with that.

17 The more you're able to switch from -- the gas savings
18 benefit you identified is due to switching from long-haul
19 to short-haul. So until we know how much you foresee, we
20 have to put a caveat around that number, correct?

21 MR. ISHERWOOD: No. Not at all. I think what we're
22 talking about in this case is what's happening in 2015.
23 Those volumes are well-defined, and the \$15.4 million
24 savings is based on our 2015 switch from long-haul to
25 short-haul, and expansions are a result from that.

26 MR. POCH: All right. The 15.4 does not take into
27 account the bridging payment.

28 MR. ISHERWOOD: The 15.4 takes into account the

1 differential between long-haul and short-haul.

2 MR. POCH: Right.

3 MR. ISHERWOOD: And the differential is not changing.

4 MR. POCH: Right. And it doesn't take into account
5 the bridging payment.

6 MR. ISHERWOOD: It doesn't have to, because the
7 calculation is gas-cost savings between long-haul and
8 short-haul.

9 MR. POCH: I understand what it is. I'm just saying,
10 so it doesn't -- logically then, you're going to -- you say
11 there's a savings of 15.4, but also as a result of this
12 deal, to the extent, as we've just discussed, your savings
13 is at the expense of TCPL revenues, you're going to have to
14 make an offsetting bridging payment.

15 MR. ISHERWOOD: We would a long-haul or short-haul.
16 We would on a long-haul or short-haul. That's why we go
17 back always to the differential. I think the part that's
18 missing here is, the world we're in today has compliance-
19 based tolls, but it also -- a lot of uncertainty, in terms
20 of the deferral accounts that are building on the TCPL
21 deferral ledger.

22 And when those get rolled out in '17, we'll be seeing
23 toll impacts through that as well that could be in excess
24 of the deal we contemplated here. In fact, that's our
25 expectation.

26 MR. POCH: Maybe I'm missing something, but I thought
27 you had agreed a moment ago that the genesis of -- one of
28 the major inputs to what TCPL is going to have a short-haul

1 that has to be made up with bridging is because -- is the
2 extent to which you move gas off of long-haul that
3 otherwise would be on long-haul and put it on short-haul.
4 That's your gas savings. That's where you're saving your
5 15.4.

6 MR. ISHERWOOD: Yes, by converting the long-haul to
7 short-haul.

8 MR. POCH: I'm sorry? I couldn't --

9 MR. ISHERWOOD: Sorry. Maybe back up. Ask your
10 question again, sorry.

11 MR. POCH: I thought we had just established that TCPL
12 -- the shortfall that TCPL's expected to incur that the
13 bridging payment is intended to offset is precisely because
14 gas is moving from long-haul to short-haul.

15 MR. ISHERWOOD: It's not entirely that. Actually, as
16 we know, there's cost under-recovery on all three sections,
17 because the compliance tolls are set at volumes -- or at
18 levels less than cost of service. So there's other
19 components besides switching.

20 MR. POCH: Fair enough. But to the extent that gas
21 moves from long-haul to short-haul, that adds to the
22 expected under-recovery of TCPL?

23 MR. ISHERWOOD: It would add to the diverting
24 requirement that I guess needs to get recovered.

25 MR. MILLAR: Right. And the 15.4 million that you've
26 identified -- and Enbridge has identified a much larger
27 number -- doesn't -- isn't -- it would be reduced by any
28 bridging payment you have to make, the portion of the

1 bridging payment that is generated by that mechanism of
2 moving from long-haul to short-haul.

3 MR. ISHERWOOD: So I'll just maybe take a step back,
4 just maybe hopefully bring a conclusion to this. But the
5 bridging -- the bridging payment that we've been discussing
6 includes the under-recovery on the three sections, plus any
7 impact to TCPL of conversion from long-haul to short-haul.

8 MR. POCH: Right. So I think the answer to my
9 question is, yes, the bridging payment will also adjust
10 other items, but certainly the bridging payment will
11 address that.

12 MR. ISHERWOOD: It's very holistic, looking at from
13 the bottom up rebuilding their revenue requirement.

14 MR. POCH: I understand. I actually quite understand
15 the rationale for the four-party deal, the terms sheet.
16 I'm not here challenging that. I'm just trying to
17 understand what its implications are for the economics of
18 the projects that are before this Board. And I think -- I
19 just want to ask this one more time, because I want it very
20 clear on the record. The net present value that you've
21 identified for your projects is generated by this landed
22 gas savings. And that net present value does not account
23 for any offsetting costs you will incur as part of the
24 bridging payment to -- that are generated by the fact that
25 these -- the shift from long-haul to short-haul will reduce
26 TCPL's revenues.

27 MR. ISHERWOOD: The net-present-value calculations are
28 based on the existing compliance tolls. They don't account

1 for a change based on the terms sheet, you're correct. And
2 they also don't account for a change when the NEB deals
3 with the deferral accounts in 2017.

4 MR. POCH: Right. And are you in any -- I mean, I
5 think it's apparent that the bridging payment will exceed
6 the gas cost savings. The portion of the bridging payment
7 due to this will exceed the gas cost savings, so long as
8 there's any positive differential between Dawn commodity
9 costs and Empress; isn't that clear?

10 MR. ISHERWOOD: No, it's not clear.

11 So I think what the term sheet does talk about is a 50
12 percent increase in short-haul tolls. And it also talks to
13 between 30 and 35 percent of that 50 percent is just to
14 recover the cost of service within the eastern triangle,
15 and then there's an additional 15 or 20 percent that's a
16 bridging payment.

17 So the 12-cent increase we've been talking about, a
18 small part of that is dealing with the under-recovery of
19 upstream tolls. It's not the full 50 percent, I guess is
20 what I'm trying to say.

21 MR. POCH: I guess I'm -- I'm not talking about the
22 increase in the short-haul tolls; I'm talking about the
23 bridging payment.

24 MR. ISHERWOOD: That is part of the increase in tolls.
25 The bridging payment is part of the 50 percent increase.

26 MR. POCH: All right. All right. I think I've made
27 that point. I'm going to move on.

28 MS. CHAPLIN: Sorry, but I'm confused. Mr. Isherwood,

1 I am hearing sort of two different things.

2 One, I think what you've just most recently said is
3 that the increase in the short-haul tolls, which you're
4 hopefully negotiating to be less than 50 percent, that
5 increase also includes -- that increase will also include
6 the bridging payment?

7 MR. ISHERWOOD: That's correct.

8 MS. CHAPLIN: And so I think on the theory of that,
9 then, the economic analysis which is looking at the gas
10 cost savings, the toll differential between the short-haul
11 and long-haul, because it's the same, the savings are, I
12 guess in the first year, the 15.4 million.

13 MR. ISHERWOOD: That's correct.

14 MS. CHAPLIN: But I thought earlier, in answer to Mr.
15 Poch's questions, you said that the analysis didn't include
16 the extent to which the bridging payment would be higher as
17 a result of the shift from long-haul to short-haul. So I'm
18 -- I may be the only one, but I'm confused.

19 MR. POCH: I assure you you're not, Madam Chair.

20 MR. ISHERWOOD: I'll apologize for that. So what the
21 term sheet talks about is a 50 percent increase is our goal
22 to try to get it to that level or lower. And there's also
23 a sentence in the same paragraph that talks about, of the
24 50 percent increase, 30 to 35 percent -- or basis points, I
25 kind of view it as. So if you think of 50 as being the
26 whole number, the first 30 to 35 points of that is really
27 just to get the eastern Ontario triangle paying the full
28 cost of cost of service, including any increased capital

1 TCPL may expend to provide access.

2 So that leaves, then, remaining to get to the 50
3 percent number, 15 to 20 percent that is really the
4 bridging contribution that is carried over the 16 years.

5 MS. CHAPLIN: Okay. Thank you.

6 MR. POCH: And I think you've just hit on something
7 there, Mr. Birmingham (sic). Because you're amortizing it
8 over 16 years, we have a relatively small -- we can hold it
9 down to 15 to 20, right?

10 MR. ISHERWOOD: Yeah, it is -- the surcharge over 16
11 years is designed to keep that impact lower.

12 MR. POCH: If we ignore the amortization, if we just
13 look at the net present value impact -- and let's just look
14 at those first six years of the deal, as opposed to how
15 you're going to put it into rates and try to smooth things
16 down. I guess I have to go back, then, and say you've got
17 a...

18 The shortfalls that TCPL's incurring by your project
19 moving gas off its long-haul system are, right now,
20 expected to be \$1.40 per cubic metre; correct? That's...

21 MR. ISHERWOOD: That's what we established.

22 MR. POCH: And that's got to be made up in a bridging
23 payment. I understand it -- in terms of the rate impact,
24 it may be lower because you're amortizing it over a lower
25 period, but in terms of net present value, all that's in
26 the bridging payment?

27 MR. ISHERWOOD: And, again, going back to the way the
28 three LDCs viewed the discussion with TransCanada, is more

1 holistically. In the example that Mr. Henning gave, where
2 they have 1.4 pJs of incremental volume, their long-term
3 contracts in July, or -- if you want to look at -- the
4 index of customers in June, there's 1.2. Slipped down
5 (sic) from 1.2 to 2.6. That has more than a \$400 million
6 impact.

7 So there's lots of moving pieces, and I don't think
8 it's fair to look at just this in isolation. There have
9 been many companies and many marketers and producers that
10 have gone long-haul to short-haul before us. There's many
11 more that will go ahead of us. The Régie has approved Gaz
12 Métro, for example, to go. There's 10 or 12 LDCs in the US
13 northeast that went to Dawn back in 2006 and '07 and '08.
14 They've all had impacts on the toll; there's no doubt about
15 that. But that is the direction of the market.

16 If I could just take a moment, I guess, Madam Chair,
17 and give you two references, the -- page 5 of the term
18 sheet, the second bullet point on that top page is an
19 example of how the surcharge is allocated, if you want, to
20 the three sections.

21 And the other reference that might be helpful would be
22 on page 7. There is access to financial information near
23 the bottom of the page. And in middle of that first
24 paragraph, it talks about the 50 percent is our target.
25 And there's a sentence that says:

26 "The expectation is that of the up to 50 percent
27 increase in tolls, 30 to 35 percent is attributed
28 to recovery of EOT cost of service and the

1 remaining will be attributable to the bridging
2 contribution."

3 That's actually embedded in the agreement.

4 MR. POCH: And again, that 50 -- those numbers are
5 kept low in part by the amortization?

6 MR. ISHERWOOD: The second part of that, the bridging
7 contribution, is kept low by the amortization.

8 MR. POCH: Right. If we were just -- if we wanted to
9 just look at the impacts of this first six years, the
10 pluses and minuses, bringing it all back down to net
11 present value, I think it's -- on a marginal basis, the
12 impact on TCPL's returns, on the margin, every cubic metre
13 you move over, it's \$1.40 less for them?

14 MR. ISHERWOOD: In isolation, that's true.

15 MR. POCH: All right.

16 MR. HENNING: Mr. Poch, if I might add one other
17 thing, because we talked about this before as well, the
18 access through Dawn into the triangle is going to be what
19 is what is necessary to keep the billing determinants of
20 the shippers that are going back into the northeast United
21 States, and in fact maybe potentially increase the billing
22 determinants associated with those shippers going back into
23 the northeast.

24 In the NEB proceeding last week, the A and E shippers
25 talked about having made requests to do precisely that.
26 And by alleviating the bottleneck here, you have the
27 potential of actually increasing the billing determinants
28 on the eastern triangle and making an improvement there.

1 That part of it certainly isn't a zero-sum game.

2 MS. CHAPLIN: Sorry, just -- Mr. Poch, I'm going to
3 interrupt you again.

4 MR. POCH: By all means.

5 MS. CHAPLIN: Mr. Isherwood, would another way -- I
6 think I'm understanding it better -- would another way to
7 kind of paraphrase it or whatever: If everything was held
8 equal in terms of total volumes through TCPL but if it was
9 just about shifting from the long-haul to the short-haul,
10 there's really not a way to escape the TCPL cost of
11 service. If you're shifting the short-haul, it just means
12 that those tolls -- maybe it's going to be spread out over
13 a longer period of time, but the same amount of money is
14 going to be collected, and so there's not really any gas
15 cost savings.

16 Where the savings come is because of the expectation
17 of actually incremental volumes on TCPL, which therefore
18 alleviate the revenue short-haul -- shortfall issue. Is
19 that a way to characterize it?

20 MR. ISHERWOOD: I think there would still be gas --
21 even if you had to allocate the cost of the bridging
22 contribution, there is still gas cost savings.

23 I think that the numbers we had talked about was --
24 resulted in about a 40 or 50 cent difference between --
25 trying to go back to your numbers here. You had a \$1.40,
26 was the difference between short-haul and long-haul

27 MR. POCH: And then 92 cents is the additional amount
28 you're paying for premium commodity costs at Dawn.

1 MR. ISHERWOOD: So the 48 cent savings, if you want.
2 And we're talking about here about a 12 cent increase in
3 short-haul tolls. So there is still a savings within the
4 bucket.

5 MS. CHAPLIN: But I guess what I'm trying to
6 understand is: Is the reason that there are savings
7 because the shortfall is going to be collected over a
8 longer period of time than what it's being accrued in? In
9 other words, it's six years of shortfall being collected
10 over 16 years, and that's why you see some savings?

11 MR. ISHERWOOD: I think that would have a small
12 impact. The bigger impact is the difference in price of
13 gas between buying gas at Dawn versus buying gas in
14 Alberta. So without even this agreement happening, to
15 calculate the savings you need to look at the toll
16 differential between long-haul and short-haul, which we've
17 gone through in some depth.

18 The other thing we always look at is the difference in
19 cost of buying gas at Empress versus buying gas at Dawn.
20 And that's an important part of the calculation as well.

21 The impact of the bridging contribution being spread
22 out 16 years versus six years would have an impact as well,
23 but the bigger impact is the gas cost savings between Dawn
24 and Empress.

25 MS. CHAPLIN: Thank you.

26 MR. POCH: Mr. Isherwood, just in that compare -- you
27 compared the 48 cents that you're -- sort of your net
28 savings, by saving \$1.40, but having to pay an extra 92

1 cents. You save 48, but for every 48 cents you save, at
2 the margin, all else being equal -- I hear you, Mr. Henning
3 -- all else being equal, TCPL loses \$1.40 that would add to
4 their bridging needs.

5 MR. ISHERWOOD: We've already established that, yes.

6 MR. POCH: All right. I just wanted to make sure,
7 because we don't want to compare apples and oranges. The
8 12 cents is a 16-year amortized number, as opposed to a
9 six-year number.

10 MR. ISHERWOOD: But I think, you know, the important
11 thing here is Ontario needs to get access and Quebec needs
12 to get access to Dawn at Niagara. Other utilities, other
13 market participants, have already gotten access. I think
14 Ms. Giridhar described this at the Friday technical
15 conference: The settlement agreement is about getting
16 equal access to everybody. There's no first, there's no
17 second. Everybody gets access, and we get the same
18 benefits, and TCPL is protected. I think it's really a
19 win-win amongst the market and the pipeline company, TCPL.

20 MR. POCH: Well, I certainly see how TCPL's
21 shareholders are -- get some protection here, and I
22 understand that the gas companies here get to put pipe in
23 the ground. I guess what we're looking at is whether it
24 helps the end-users.

25 MR. ISHERWOOD: I think the point that Mr. Henning
26 made yesterday was, without this type of agreement Ontario
27 would be stranded. We will have the highest cost gas in
28 North America. So what we're trying to protect is to make

1 sure Ontario has competitive natural-gas pricing to local
2 -- or competing jurisdictions, New York and Michigan and
3 Ohio. We need to compete with those jurisdiction, not be
4 stranded and isolated.

5 MR. POCH: Let me move on then. I just wanted to ask
6 about some of the higher-level impacts of your proposed --
7 of the shift of gas supplies coming from the Marcellus and
8 so on rather than out west.

9 I think it's agreed, but correct me if I am wrong, by
10 the companies and Mr. Henning that initially at least
11 western gas will have a lower percent of shale gas than
12 obviously these pure shale-gas sources in the States, but
13 that's expected to shift over time?

14 MR. HENNING: Yes. And I'm trying to find exactly
15 where my table was with the numbers, in terms of our
16 projections.

17 Our estimate of the portion of shale gas from western
18 Canada as it existed in 2012, out of the total production,
19 our number is 13.9, because it has some of the liquids
20 aspect. There's a little bit difference in the base.

21 But the percentage there is 13.9 total and about 1.8
22 bc -- and these are in billions of cubic feet per day --
23 1.8 Bcf/d of the shale and tight formations, which the NEB
24 includes in together.

25 By 2025 we are estimating that the total production
26 will have rebounded some. A lot of it has to say in
27 western Canada, and a lot of it may go into LNG exports as
28 well. It goes back up to 16.3 billion cubic feet a day,

1 but 9.1 of that is from shale formations and tight
2 formations.

3 MR. POCH: So in very rough terms, the shale component
4 of western gas is moving from kind of under 5 percent up
5 about two-thirds over that period.

6 MR. HENNING: Subject to check, yeah, roughly.

7 MR. POCH: Fine. And when you speak about some of it
8 having to stay out west for LNG, that's -- I assume that
9 would require the proposed pipeline through B.C. getting
10 approved? That's the one that we've heard so much about in
11 the news?

12 MR. HENNING: Yes, but some of it staying out west is
13 also for oil sands projects, for power generation in
14 Alberta, the requirements too of a growing economy out
15 there as well.

16 MR. POCH: Sure. All of which is highly charged
17 political debates, as you might appreciate in Canada.

18 MR. HENNING: I have been reading about some of it,
19 yes.

20 MR. POCH: Yes. Okay. Just last week, panel, we read
21 in the press that our Prime Minister and his minister, Mr.
22 Oliver, in an effort to stoke their case for the Keystone
23 XL pipeline, have offered the Americans that they would
24 work together to try to come up with a common regulatory
25 regime for the externalities, carbon or carbon-equivalent.
26 I guess methane is more to the point here as well. You're
27 aware of that?

28 MR. HENNING: I have read about that, yes.

1 MR. POCH: All right. Would you agree -- I guess, Mr.
2 Henning, this is really for you -- that while the timeline
3 is extremely uncertain, it does seem inevitable that sooner
4 or later we're going to have to see some kind of regulation
5 that monetizes these externalities, be it cap in trade or
6 carbon tax or some other vehicle.

7 MR. HENNING: Well, it's very hard to foresee the
8 political tea leaves, but I will tell you that the ICF base
9 case has and for actually an extended period of time
10 included some monetization of carbon. Unfortunately, in my
11 own opinion, it's not as early now in the base case for the
12 United States as it was a few years ago. But we're doing
13 our best to try to reflect what we see the political
14 realities in Washington to be.

15 MR. POCH: And we can agree -- I'm sure you and I can
16 agree that the timing of that is extremely unpredictable.

17 MR. HENNING: Very unpredictable. From our
18 perspective right now in our base case we don't have it
19 happening until 2023.

20 MR. POCH: Right. And just on that front, methane is
21 -- from a greenhouse-gas perspective, can we agree methane
22 is many times worse than carbon dioxide emissions per
23 tonne?

24 MR. HENNING: The value used by the inter-governmental
25 panel on climate change is 25 times on a molecule basis.

26 MR. POCH: Right. And you're aware that there is
27 considerable concern that's been expressed that the methane
28 leak rate from fracking gas, at least in the eastern part

1 of the continent, is significantly higher than the methane
2 release rate from conventional gas development, at least it
3 is today?

4 MR. HENNING: This is something that has been
5 discussed and debated quite a bit. There have been a
6 number of studies, including one that's on the record here
7 in this particular proceeding, from Cornell University that
8 looks at methane emissions.

9 I would point out that there have been four peer-
10 reviewed studies that have concluded that the numbers that
11 were in that particular study from Cornell were overstated,
12 and in fact, subsequent to that, the U.S. Environmental
13 Protection Agency has lowered their methane emissions
14 associated with -- on conventional gas production
15 estimates. But, yes, it is something that's clearly under
16 debate.

17 MR. POCH: I wasn't asking for your support for those
18 particular numbers, but just directionally, there's a
19 debate about how much worse, but is it not settled that
20 right now, at least, that there is significantly more
21 methane released from fracking techniques than from
22 conventional techniques?

23 MR. HENNING: I think the evidence to date is that in
24 the early stages of fracking development, particularly the
25 de-watering of wells, there have been emissions. But I
26 would note that the shale-gas revolution, if you will, is
27 something that everybody's had to catch up to. And that's
28 true with regulation as well.

1 We are undergoing in the United States a whole series
2 of regulations that are designed to reduce some of the
3 methane emissions, including -- you know, and just
4 practices within the industry are working towards making it
5 a more environmentally sustained --

6 MR. POCH: So you don't disagree that at present
7 there's more from fracking; you're anticipating regulations
8 are going to reduce that differential?

9 MR. HENNING: I think that's a fair statement.

10 MR. POCH: All right. And there would be some costs
11 associated with complying with those regulations,
12 presumably.

13 MR. HENNING: Yes. I would add, though, that when ICF
14 has looked at these issues, both for methane emissions as
15 well as for some of the water issues that are also involved
16 in shale gas and on tight gas productions, we have -- our
17 analysis does not -- indicates that those particular costs
18 are not cost-prohibitive. In fact, shale gas is still a --
19 the development of shale gas is no longer on the margin for
20 natural-gas supplies in North America. It's actually
21 infra-marginal. And so there's some room to have
22 regulation increase some of the costs in order to be able
23 to do it in an environmentally sustainable manner.

24 MR. POCH: Panel, I take it that with all these
25 uncertainties we've just -- Mr. Henning and I have just
26 spoken of, it's perhaps understandable that the fact is you
27 haven't put anything into your net present value analysis
28 to capture the potential hard dollar costs that subsequent

1 greenhouse gas regulation may disproportionately visit on
2 shale gas versus conventional gas?

3 MR. HENNING: I'm trying to understand the question.
4 I mean, Union will have to talk about whether they've tried
5 to explicitly look at that.

6 The point that I would make is we've just gone through
7 the analysis that indicates that, whether it's gas coming
8 from -- I mean, today we're talking about shale gas being
9 in the market and being about 36 percent of the North
10 American production, that number rough, subject to check.

11 It's going to grow to be well over 50 percent, and
12 whether the gas comes from the production in the Marcellus
13 or in the Utica or in the Bakken or in western Canada, the
14 development of gas resource is going to come from shale.

15 And when we're looking at that, the environmental,
16 particularly on the methane emissions aspects of it,
17 methane is a global greenhouse gas. It really -- if you're
18 producing it in western Canada, it's going to have the same
19 impact as if you're producing it from the Marcellus.

20 The point that we take to it is that the environment
21 that we have, shale gas, in our opinion, can be produced in
22 an environmentally responsible manner, and it will be the
23 source of gas that Ontario will need regardless of whether
24 it came from the west or whether it comes from other
25 sources in North America.

26 MR. POCH: All right. And if you're right and there's
27 no distinction to be made between Marcellus gas and western
28 gas at the margin on that front, would you agree, though,

1 that certainly that does change the economics of -- could
2 potentially change the economics of conservation, and it's
3 only likely to go in one direction?

4 MR. HENNING: The magnitude of the increase, yes, I
5 would directionally agree. And the magnitude of the
6 increase is subject to debate.

7 When we looked at the water regulations, for example,
8 we looked at the increases as being something between seven
9 and 11 percent on the cost of a well. So we're talking
10 about a marginal increase. Certainly that increase would
11 improve conservation.

12 I would -- within our base case, we are reflecting the
13 existing regulations and what we think is going to be
14 happening, including, as I said, carbon mitigation in all
15 fuels beyond 2020 in the United States, as well as all of
16 the other aspects that are tied up in this issue, renewable
17 portfolio standards and the like.

18 So yes, it certainly -- if prices will go up, and we
19 project that they will, you'll get some additional
20 conservation.

21 MR. POCH: Thank you, Madam Chair. Those are my
22 questions.

23 MS. CHAPLIN: Thank you, Mr. Poch.

24 We'll take the morning break now for half an hour. So
25 we'll come back at five to 11:00, we'll say. Thank you.

26 --- Recess taken at 10:26 a.m.

27 --- On resuming at 11:00 a.m.

28 MS. CHAPLIN: So who will be going next?

1 MR. WOLNIK: I had volunteered to go next, Madam
2 Chair.

3 MS. CHAPLIN: Okay.

4 **CROSS-EXAMINATION BY MR. WOLNIK:**

5 MR. WOLNIK: Good morning, panel. John Wolnik for
6 APPrO. I've got a few questions for you. Many of my
7 questions are already covered, so it will be a little bit
8 shorter than originally anticipated.

9 I'd like to follow up kind of questions in several
10 areas. First I'd like to follow up on Mr. Poch's line of
11 questioning. I'd also like to talk about some of the risks
12 of the project, and then I have a few general questions.

13 But let's start first with Mr. Poch's line of
14 questioning, and maybe it was just me that was confused,
15 but I'd just like to maybe just explore some of the math as
16 best we can.

17 And I guess the basic question that I have is, does
18 the settlement agreement fundamentally change the relative
19 economics of your switch from long-haul -- your proposed
20 switch from long-haul to short-haul? As I understand it,
21 you're proposing to shift about 70,000 gJs a day; is that
22 right?

23 MR. ISHERWOOD: That's correct.

24 MR. WOLNIK: And I think you're forecasting a savings
25 of about \$15 million a year?

26 MR. ISHERWOOD: 15.4; that's correct.

27 MR. WOLNIK: 15.4. So over -- and let's take a window
28 of six years, and that's important, I think, because that's

1 the turn that I think drives the bridging amount that's
2 going to be shifted into the Eastern Triangle; is that
3 right?

4 MR. ISHERWOOD: That's correct.

5 MR. WOLNIK: So over that six years that's just a
6 little over \$90 million. Is that about right, the right
7 math?

8 MR. ISHERWOOD: Correct.

9 MR. WOLNIK: Okay. And I think as Mr. Poch indicated,
10 and I think you also indicated this as well, for each gJ of
11 gas you don't flow long-haul on TransCanada there is an
12 under-contribution to TransCanada of about \$1.40, and that
13 would increase -- otherwise increase that bridging amount;
14 is that fair?

15 MR. ISHERWOOD: \$1.40 is one of the contributing
16 factors towards that.

17 MR. WOLNIK: Sure. And I appreciate there's going to
18 be others. But just on an incremental basis for your
19 70,000 gJs a day, that bridging amount will be more or less
20 \$1.40 per gJ?

21 MR. ISHERWOOD: That's correct.

22 MR. WOLNIK: Okay. So over the six years my math says
23 if I take the 70,000 gJs a day, multiply it by \$1.40, times
24 365, times six years, I get about just over \$200 million;
25 214, actually. Does that sound about right?

26 MR. ISHERWOOD: Actually, I might ask Mr. -- there's
27 actually a good schedule I think that we had filed as
28 evidence that goes through it on an annual basis rather

1 than a six-year basis, but I think it would still be
2 helpful for the Board.

3 MR. WOLNIK: Okay. Do we want to pull that up?

4 MR. ISHERWOOD: Yes.

5 MR. SHORTS: Yeah, that would be the section 11
6 addendum, page 3 of 10, that Union filed, and on that page,
7 once we get it here -- this is the updated economics that
8 we had provided as a result of the TCPL compliance tolls.

9 I think the key thing to remember here is that this
10 whole calculation is based on the delta between the long-
11 haul and the short-haul.

12 So up at the top we show the supply transportation.
13 So you'll see \$35.4 million, which is the annualized
14 savings of the lower transportation costs of moving to
15 short-haul from long-haul. And then you see below it a
16 number of 18.4 million negative. That's the incremental
17 cost of buying the gas at Dawn versus Empress. And that's
18 the basis differential of 92 cents that we've been
19 discussing.

20 So that essentially gets you the \$15.4 million, which
21 is the annualized savings of the long-haul versus short-
22 haul, made up of the lower transport, offset by the
23 incremental gas cost at Dawn versus Empress.

24 MR. WOLNIK: Right. And none of that takes into
25 account the -- sort of this proposed settlement agreement;
26 is that right?

27 MR. SHORTS: Well, the important thing to note here is
28 that the differential that we've been discussing, the 12

1 cents, does take into account the bridging cost. So the 12
2 cents is the combination of all the factors, and that 12
3 cents is going to be added to short-haul, as well as long-
4 haul, so therefore that 12-cent number added to both does
5 not change the math in this schedule.

6 MR. ISHERWOOD: So to say it differently, the
7 \$35.4 million would not change.

8 MR. WOLNIK: I think I understand that. I guess -- I
9 think where Mr. Poch was going was, once you start to
10 include the impact of the bridging solution, the bridging
11 amount could be much less than it would be otherwise if you
12 were to retain a long-haul -- long-haul throughput.

13 MR. ISHERWOOD: So I don't dispute the numbers, Mr.
14 Wolnik. The issue we have is the current situation on
15 TransCanada is unsustainable. It's been a -- these were in
16 earlier -- torturous summer, in terms of litigation and
17 filing with the different regulatory boards. Access to
18 Dawn-Niagara is blocked. Industrials in northern Ontario
19 can't get back to Dawn. We can't get back to Dawn. It's
20 not sustainable.

21 And in addition, we have deferral accounts at the NEB
22 on TransCanada increasing at \$100 million a year, which
23 will be revisited back to all of us.

24 MR. WOLNIK: Mr. Isherwood, I probably more than most
25 in this room appreciate what you've gone through.

26 MR. ISHERWOOD: You've been in the same...

27 MR. WOLNIK: All I'm trying to understand is really
28 the relative economics, and I appreciate all of those

1 things, and I think there are a number of good features in
2 that settlement agreement. But I think what we're talking
3 about here is just your conversion of the 70,000 gJs a day
4 from long-haul to short-haul. And I just want to make sure
5 I understand and the Board understands the relative
6 economics of doing that at this particular time, given this
7 bridging solution, in light of the settlement agreement. I
8 just want to make sure the economics are relatively clear.

9 So I think, going back to my math -- and correct me if
10 I'm wrong, but the net saving to your customers is
11 \$90 million. The net cost to the system, because the
12 bridging amount will be higher than what it would be
13 otherwise, is about \$200 million.

14 MR. ISHERWOOD: So I guess how I would go back to this
15 table and kind of draw a similar conclusion, perhaps, is,
16 if there were no transportation savings, so that 35.4
17 number went to zero, then obviously buying gas at Dawn will
18 always be more expensive than buying gas at Empress.

19 MR. WOLNIK: No, I understand that, but you're doing
20 this on an overall rolled-in basis, right?

21 MR. ISHERWOOD: I think I'm agreeing with you,
22 actually, so if the 35.4 went to zero, because there's no
23 savings, what you're really saying is that the system cost
24 impacts, so that means there are really no savings to
25 transport. Then the only impact of us converting is to
26 have the gas cost at Dawn, which would be the \$18.4 million
27 cost, if you want.

28 And that's essentially the essence of the TransCanada

1 evidence. And where we dispute that is, we have to look at
2 it more holistically. And what is the value of getting
3 customers back to Dawn? Not only Union, but all across
4 Ontario and Quebec, and the benefits that brings.

5 MR. WOLNIK: But I think what you're asking the Board
6 to do here is approve your 70,000-gJ-a-day shift. That's
7 what is in question here; is that right?

8 MR. ISHERWOOD: And that results in \$15.4 million
9 savings, taking into account the savings on transportation
10 offset by a higher gas cost.

11 MR. WOLNIK: But there's an additional \$200 million
12 that other users pay, or less your share that's embedded in
13 those rates; is that correct?

14 MR. ISHERWOOD: There's a cost -- looking at this deal
15 as a single deal, nothing else happening in the world, then
16 those tolls would have to get recovered from somebody.

17 MR. WOLNIK: Right. So --

18 MR. ISHERWOOD: And there would be some discussion at
19 the NEB whether TCPL should accept some of that or not.
20 That was, I think, in TCPL's evidence as well.

21 But my point is, there are so many other things
22 happening in the market, including --

23 MS. CHAPLIN: Sorry, I'm just going to interrupt you
24 briefly, Mr. Isherwood.

25 MR. ISHERWOOD: Yes.

26 MS. CHAPLIN: I think it will be most helpful to the
27 Board if we can understand your answers to the technical
28 questions, and then if you want to then layer on the other

1 considerations you feel that are important, you're
2 certainly more than welcome to do so. But I think really,
3 if you can as directly and clearly answer the technical
4 questions that you're given first and then add the extra, I
5 would -- the Panel would find that more helpful. Thank
6 you.

7 MR. WOLNIK: So essentially your customers -- well,
8 maybe just repeat this just for clarity then. So your
9 customers are getting a \$90 million benefit from being able
10 to shift, but at the same time they're also contributing to
11 about a \$200 million increase in the bridging amount that
12 would otherwise occur had those customers stayed long-haul.

13 MR. ISHERWOOD: I'm just trying to reconcile the math,
14 but I think the 35.4 million times six years would be about
15 \$200 million.

16 MR. WOLNIK: And how is that relevant compared to the
17 15.4 times 6?

18 MR. ISHERWOOD: Well, the number you had given is
19 correct. Six times 15 is 90.

20 MR. WOLNIK: Okay. So incrementally there's a net
21 additional cost overall to the system of about
22 \$100 million.

23 MR. ISHERWOOD: That's correct.

24 MR. WOLNIK: Okay. And in addition to that, in order
25 to make this shift, there's a number of additional
26 facilities that are required, Dawn to Parkway, Parkway to
27 Albion, Albion to Vaughan; is that right?

28 MR. ISHERWOOD: I'm just a little conscious of the

1 Enbridge pipe is also distribution, but you need the whole
2 path completed.

3 MR. WOLNIK: Fair point. And as I recall -- as I
4 recall the economics -- and I don't actually. I don't
5 recall the economics of the PI of that shift on your
6 system, is it fair to say that there is a cross-subsidy
7 between existing shippers, existing M12 shippers on your
8 system, and the new shippers?

9 In other words, the toll increases because the new
10 shippers on M12 are not recovering their incremental cost;
11 is that fair?

12 MR. ISHERWOOD: The M12 toll does increase as a result
13 of these projects.

14 MR. WOLNIK: So there's another incremental cost
15 associated with expanding the system to accommodate this
16 shift?

17 MR. ISHERWOOD: That's correct.

18 MR. WOLNIK: So I guess the basic question, then, is
19 sort of the public interest consideration, then, of making
20 this shift from long-haul to short-haul, in light of the
21 settlement agreement. I appreciate that prior to the
22 settlement agreement, it was a different ball game, but I
23 think given the interrelationship between the settlement
24 agreement, the bridging costs and the feedback to the
25 eastern Ontario triangle tolls, it seems to me that this
26 shift of 70,000 gJs a day drives significant costs to other
27 users of the system.

28 MR. ISHERWOOD: I think the settlement agreement

1 brings certainty to what those impacts are, whereas in
2 today's framework with the NEB there is uncertainty.

3 MR. WOLNIK: Right. And those additional costs, would
4 you agree, that are roughly this \$100 million we talked
5 about before, plus the cross-subsidy provided by the
6 existing shippers on, at least, your system, the M12
7 system?

8 MR. ISHERWOOD: I'd agree with that.

9 MR. WOLNIK: Okay. Thank you.

10 Moving on to some of the financial risks, panel,
11 you've indicated that these are the sort of financially
12 biggest projects that Union has undertaken. Moreover, this
13 complex settlement agreement is far-reaching and has yet-
14 to-be determined implications.

15 So would you agree with me that as a result of the
16 size, the complexity and the interdependency of these
17 projects, among Union, Enbridge and TransCanada, there's
18 also greater execution risk of your projects?

19 MR. RIETDYK: I would agree with that. It is
20 something that we've looked at quite closely and have been
21 working with Enbridge and TCPL to manage all those risks,
22 of all that activity happening at the same time.

23 MR. WOLNIK: And does this lead to more financial
24 risk?

25 MR. RIETDYK: Financial risk is directly related to
26 the schedule risk and the availability of resources to
27 complete all this work for the in-service dates.

28 And so that risk is there, although, again, we have

1 taken significant steps to mitigate that by doing early
2 tendering for the work and making sure that we have the
3 resources that will be required lined up well in advance,
4 and also by making sure that we keep the project on
5 schedule in order to meet our in-service dates.

6 MR. WOLNIK: Okay. I'd like to come back to that in a
7 minute.

8 Mr. Birmingham, I think you talked to Mr. DeRose
9 yesterday about sort of the approval aspects of this
10 project and the fact that some equipment, I think, is on
11 order now. And there was some concern, I think, about if
12 subsequent approvals downstream don't occur, then there's
13 some costs that will be incurred by Union. And I think
14 he'd talked with you about sort of who pays that cost.

15 And I think, if I recall, what you'd indicated was
16 that you wanted to see what the subsequent decisions were
17 and then you would sort of decide who should bear those
18 costs. Is that reasonable?

19 MR. BIRMINGHAM: We would have to evaluate the
20 circumstances at the time before we made a determination
21 about what we should do about the remaining cost. That is
22 correct.

23 MR. WOLNIK: Okay. And, Mr. Isherwood, these costs
24 are really driven by the M12 contracts; is that right?

25 MR. ISHERWOOD: M12, as well as Union Gas, have some
26 capacity going through as well.

27 MR. WOLNIK: Okay. And within those M12 contracts or
28 the precedent agreements that were signed presumably in

1 association with those contracts, do you deal with cost
2 responsibility in the event that the project doesn't go
3 forward?

4 MR. ISHERWOOD: We do. There's a financial
5 backstopping agreement that both Gaz Métro and Enbridge
6 would have.

7 MR. WOLNIK: So going back to my prior question, then,
8 Mr. Birmingham, in the event that downstream approvals
9 weren't received, do those shippers that entered the
10 precedent agreements have that cost responsibility?

11 MR. ISHERWOOD: Union Gas would also share that
12 responsibility. It's volumetrically assigned,
13 proportional.

14 MR. WOLNIK: For the volumes that you're shifting?

15 MR. ISHERWOOD: Yes.

16 MR. WOLNIK: But for the capacity associated with the
17 M12 contracts, it's those customers would end up paying for
18 it; is that fair?

19 MR. ISHERWOOD: So what I meant by "proportional" was
20 Union Gas is shipping 70,000 incrementally, Enbridge is
21 shipping 400,000, and Gaz Métro shipping the 258. So it's
22 provided proportionately amongst those three.

23 MR. WOLNIK: So, Mr. Birmingham, for the 70,000, I
24 guess the cost responsibility related to the 70,000, to the
25 extent that there was some visited on Union, can you
26 comment on the situations where you would expect customers
27 to pay for that?

28 MR. BIRMINGHAM: No.

1 MR. WOLNIK: Can you say why?

2 MR. BIRMINGHAM: We haven't even considered it, Mr.
3 Wolnik. Again, I'd want to see the circumstances at the
4 time, what the rationale for any sort of change or
5 disallowance would be before we made a proposal to deal
6 with any of the impacts.

7 MR. WOLNIK: Well, is it fair to say that the -- it's
8 the customers on behalf of which you're shifting volumes
9 that would have that cost responsibility, as opposed to all
10 customers?

11 MR. BIRMINGHAM: We'd definitely have to take a look
12 at that.

13 MR. WOLNIK: Okay. And also, Mr. Birmingham, I think
14 you had also indicated to Mr. DeRose yesterday that there's
15 no after-the-fact prudence review; is that right?

16 MR. BIRMINGHAM: Mr. DeRose asked me whether there was
17 going to be an after-the-fact prudence review about the
18 nature of the investment; that is the decision to actually
19 construct the facilities.

20 And my response is that that was going to be conducted
21 in the full regulatory review, which would include the
22 leave-to-construct and the rate recovery piece, which is
23 exactly this type of proceeding that's contemplated in the
24 incentive regulation settlement agreement.

25 There is one other aspect of prudence review that
26 could happen, and that is to the extent that the costs were
27 significantly different than what the Board had approved in
28 the initial leave-to-construct application, that those

1 costs would be reviewed, but the decision and the prudence
2 of the decision to actually make the investment and
3 construct would be done at the time of the leave-to-
4 construct application and the initial rate recovery.

5 MR. WOLNIK: And those are the costs you're seeking
6 pre-approval of at this time; correct?

7 MR. BIRMINGHAM: That's correct.

8 MR. WOLNIK: Okay. And I think yesterday we heard --
9 perhaps it was from you, Mr. Rietdyk -- that the Parkway
10 West costs had already increased from 203 to \$219 million,
11 and you haven't even broken ground yet; is that right?

12 MR. RIETDYK: That's correct. Our latest revised
13 estimate is 219.4 million.

14 MR. WOLNIK: And I think in Exhibit I.A3.UGL.Staff.13
15 -- I don't think you need to turn it up -- there were costs
16 of the last three compressor stations included in there.
17 And as I recall, two of the last three compressor stations
18 had fairly significant cost overruns. Do you recall that?

19 You're free to bring it up, if that's helpful.

20 MR. BIRMINGHAM: We should bring it up, but I do
21 recall that.

22 MR. WOLNIK: So that was Staff 13. I'm not sure what
23 page it was. It was a table, as I recall.

24 So it looks like in the Parkway B compression, the
25 original estimate was \$48 million; the actual was 70.
26 Bright was 57, ended up being 73. And Dawn J, which
27 started out at 41, came in slightly under budget.

28 So I guess the question here is: Given some of these

1 projects have had some cost overruns, how do we rationalize
2 the fact that you're seeking pre-approval for these costs
3 and there's no sort of secondary review on what the costs
4 actually are?

5 MR. BIRMINGHAM: Just to be clear, Mr. Wolnik, as I
6 said, if there is going to be any sort of significant cost
7 variance beyond what the Board had pre-approved in these
8 applications, then there would be a subsequent review of
9 that amount.

10 As an example, Parkway West is now forecast to be
11 219.4 million, and it would be on that basis that we're
12 seeking the Board's leave-to-construct approval and rate
13 recovery.

14 But to the extent that the actual costs were
15 significantly different than that, the Board would clearly
16 have the ability to review those costs and make a prudence
17 finding around them.

18 MR. WOLNIK: And just "significant", how would you
19 define that? Would you hazard a guess?

20 MR. BIRMINGHAM: Frankly, I think any cost overrun
21 will be reviewed by the Board, but it would be -- it would
22 have to be significant. Typically, I would say something
23 in the order of 10 percent or more.

24 MR. WOLNIK: Okay. If the Board only granted pre-
25 approval of these projects but only up to the -- for
26 instance in Parkway West, the \$219 million, would Union
27 still proceed with the projects?

28 [Witness panel confers]

1 MR. BIRMINGHAM: I can't say, Mr. Wolnik. The
2 difficulty is that there are still a number of unforeseen
3 items that we haven't nailed down with respect to the
4 costs. As Mr. Rietdyk testified to yesterday,
5 219.4 million is our very best estimate at this time. But
6 there are things that are outside of our control during the
7 -- both the budget and the actual construction that could
8 change that costs. So the prudence of the -- any
9 additional costs would have to be determined based on those
10 actual circumstances.

11 If the Board is to put a cap, essentially, on the
12 approval, I think that's -- I think that is problematic,
13 just because of the uncontrollable items that can exist in
14 these types of projects.

15 MR. WOLNIK: Well, I thought I heard you say that any
16 sort of significant increases would be subject to the
17 Board's review anyway, so I'm just wondering how that's
18 sort of materially different than just pre-approving the
19 amount that you -- for instance, the \$219 million, the
20 budget amount?

21 MR. BIRMINGHAM: That wasn't your question, though,
22 Mr. Wolnik. You asked me whether we would do the projects
23 if the Board put a cap on it. And my response is --

24 MR. WOLNIK: In other words --

25 MR. BIRMINGHAM: -- we would have to consider that. I
26 don't know.

27 MR. WOLNIK: In other words, you would have to come
28 back to the Board to seek approval of any cost overruns.

1 MR. BIRMINGHAM: We would have to do that in any
2 event.

3 MR. WOLNIK: So I would take it that's a yes then.
4 You would still do the project.

5 MR. BIRMINGHAM: I don't know.

6 MR. WOLNIK: Okay. Mr. Isherwood, yesterday at around
7 transcript 127 you talked about the settlement agreement
8 bringing all parties together. And you said -- and you
9 indicated the tolls would increase and I think everyone was
10 going to be growing together or something of that effect.

11 Would you agree with me that there are some shippers
12 on the TCPL system that are either long-haul or short-haul
13 shippers, that their tolls will also significantly increase
14 as a result of this?

15 MR. ISHERWOOD: I think all shippers' tolls will
16 increase.

17 MR. WOLNIK: So generators, for instance, that are
18 less sensitive to the commodity costs, they will just see
19 the increase in the tolls without a corresponding decrease
20 in the commodity values that might occur.

21 MR. ISHERWOOD: So generators that are short-haul have
22 to see the same increase as anybody else on short-haul.

23 MR. WOLNIK: And you're probably aware that there was
24 an R&V, a review and variance, application filed by some of
25 the generators at the NEB based on the existing compliance
26 tolls?

27 MR. ISHERWOOD: Very recently.

28 MR. WOLNIK: Right. So -- and they weren't

1 particularly pleased with the current level of tolls, so
2 would it be your expectation that they will be less happy
3 with a 50 percent increase in their tolls?

4 MR. ISHERWOOD: I would assume that, yes.

5 MR. WOLNIK: And earlier than what would be expected
6 under the compliance tolls?

7 MR. ISHERWOOD: Earlier than, but still may be in a
8 better position than compliance tolls. And that's still
9 the part we need to bring forward with the joint panel.

10 MR. WOLNIK: Right. Okay. Thank you, members. Those
11 are my questions.

12 MS. CHAPLIN: Thank you, Mr. Wolnik.

13 So who is going next?

14 MR. CRANE: Madam Chair, I'll go next. Mr. Crane.

15 MS. CHAPLIN: Oh, sorry. Thank you, Mr. Crane. Are
16 you -- I believe you just have ten minutes or so?

17 MR. CRANE: Yes, and perhaps even less, given Mr.
18 Wolnik's recent examination.

19 MS. CHAPLIN: Great, thanks.

20 **CROSS-EXAMINATION BY MR. CRANE:**

21 MR. CRANE: Panel, my name is Mark Crane. I'm counsel
22 for IGUA. A few questions. I just want to follow up on a
23 portion of the exchange between Madam Chair and Mr. Poch
24 and Mr. Isherwood as it relates to the total cost savings,
25 and in fact, some of what -- I'm trying to reconcile what
26 we've just heard through Mr. Wolnik's cross-examination.

27 And I took from the exchange with Madam Chair and Mr.
28 Isherwood, the exchange with Madam Chair and Mr. Poch

1 before the break, that there would be total cost savings
2 would exist even if the bridging contribution was not
3 amortized over 16 years and rather was just dealt with over
4 six years. Do you recall saying that?

5 MR. ISHERWOOD: As my estimate, yes.

6 MR. CRANE: And in order to give that estimate, did
7 you have -- is it fair to say that you would have had --
8 given some thought to what the bridging contribution would
9 be?

10 MR. ISHERWOOD: I've always been using the 12-cent
11 number as being the total incremental change in tolls.

12 MR. CRANE: And so in light of that are you able just
13 for the sake of -- and I think an undertaking was provided
14 to Mr. DeRose, but are you able to provide us -- and I'd be
15 pleased to take it by way of undertaking -- what you
16 consider the impact of the bridging contribution to be in
17 light of your evidence that there would continue to be
18 annualized gas cost savings even with the bridging -- the
19 impact of the bridging contribution?

20 MR. ISHERWOOD: Sorry, I'm not sure I followed the
21 question at the end.

22 MR. CRANE: Well, you've told us that you would
23 consider there to be total gas savings even if you were to
24 consider the global impact of the bridging contribution.
25 And I think you've told us that you've given -- you do have
26 an estimate of what you were considering the impact of the
27 bridging contribution to be.

28 And my request is that you provide that to us, an

1 impact -- your estimated impact of the bridging
2 contribution annualized so that we can compare it to
3 whether there would be in fact annualized gas cost savings.

4 MR. ISHERWOOD: And just to add some clarity, I guess,
5 when I say 12 cents, that's really the 50 percent increase
6 in the short-haul tolls, and as the terms sheet spells out,
7 the bridging contribution is -- of that 50 percent is
8 probably the 15 to 20 percent range.

9 So I'm not sure if you wanted that component or the
10 whole 50 percent increase component.

11 MR. CRANE: So I think -- so I agree with you, and I
12 had the benefit of the technical conference, appreciate the
13 distinction between the 35 percent and -- or the 30 to 35
14 percent and the remaining 15 to 20 percent.

15 So I think, as I understand the bridging contribution,
16 it's really what's -- my understanding of sort of the
17 definition of the bridging contribution is not the recovery
18 of the cost-of-service in the EOT, but rather what would be
19 recovered for the Prairies and the northern aspect of it.
20 So it would be for the 15- to 20-cent piece (sic) that I'm
21 interested in.

22 MR. ISHERWOOD: 15 to 20 percent piece.

23 MR. CRANE: Correct.

24 MR. ISHERWOOD: So if we have a 12-cent total increase
25 as being the 50 percent, and 20 percent of that would be
26 2.4 cents.

27 MR. CRANE: Okay. And over what volumes?

28 MR. ISHERWOOD: And the rule of thumb that we have as

1 a panel is, every 10-cent change in gas cost is about
2 \$2 million impact, plus or minus on the total savings of
3 15.4 million. So 2.4 is 25 percent of 10 cents. So it
4 would be half a million dollars.

5 MR. CRANE: So half a million dollars is what your
6 understanding is or what your estimate is of what the
7 impact of the bridging contribution will be?

8 MR. ISHERWOOD: Just stand-alone, that contribution,
9 but as we've testified to, we look at the differential
10 long-haul to short-haul, but to your question --

11 MR. CRANE: Yes.

12 MR. ISHERWOOD: -- it would be 25 percent of
13 2 million. It would be half a million bucks.

14 MR. CRANE: Okay. Thank you. Those are my questions.
15 Thank you.

16 MS. CHAPLIN: Thank you, Mr. Crane.

17 MR. RUBENSTEIN: I can go next.

18 MS. CHAPLIN: Thank you.

19 **CROSS-EXAMINATION BY MR. RUBENSTEIN:**

20 MR. RUBENSTEIN: Good morning, panel. My name is Mark
21 Rubenstein, counsel to the School Energy Coalition. I just
22 have a few questions for you on a number of different
23 areas. The first question is essentially a technical
24 question, and I'm interested in the...

25 If the Board approves the Brantford-to-Kirkwall loop
26 aspect of the Brantford-to-Kirkwall Parkway D project, the
27 Board approves the segment A, and TransCanada gets the
28 approvals and builds the Albion to Vaughan, without the

1 Parkway D compressor is it technically possible to flow
2 that incremental gas to Vaughan and to TCPL's system?

3 MR. ISHERWOOD: Assuming the Gaz Métro, Union Gas,
4 Enbridge incremental volumes, no.

5 MR. RUBENSTEIN: Yes.

6 MR. ISHERWOOD: No.

7 MR. RUBENSTEIN: So you require that compressor.

8 MR. ISHERWOOD: Absolutely.

9 MR. RUBENSTEIN: Okay. With respect to gas savings,
10 which has been discussed a lot this morning, essentially
11 the position of Union Gas is that the evidence does not
12 need to be updated because the differential between long-
13 and short-haul tolls will remain the same, and thus the
14 gas-savings calculations will remain the same, correct?

15 MR. ISHERWOOD: That's correct.

16 MR. RUBENSTEIN: And the current differential is \$1.40
17 between long- and short-haul?

18 MR. ISHERWOOD: Yes.

19 MR. RUBENSTEIN: Can you show me where in the terms
20 sheet -- that's Exhibit K1.1 -- it specifies that the
21 differential will not change?

22 MR. ISHERWOOD: It's the clause I had pointed out to
23 the Board earlier on, on page 5. It's the second clause
24 from the top of that page.

25 And the last sentence really captures that thought:

26 "The intent here is to ensure the toll spread
27 between short-haul and long-haul tolls reflects
28 the proper costs."

1 MR. RUBENSTEIN: So this does not actually say that
2 when the settlement -- that -- or at least putting aside
3 the settlement, that this term sheet guarantees that the
4 long- and short-haul tolls will -- the differential will
5 remain the same? That might be the intent or it might be
6 the expectation, but until we see those numbers we can't be
7 guaranteed of that?

8 MR. ISHERWOOD: Yeah. And to be a fuller answer, you
9 would need to read the whole paragraph because it does get
10 into how short-haul is treated versus long-haul.

11 But that is sort of the principle of the toll design
12 here.

13 MR. RUBENSTEIN: Okay. So we're just at a principle.
14 I provided a compendium to the Panel yesterday -- I
15 mean, to the witness panel yesterday. I'm not sure if the
16 Board has the SEC compendium.

17 MR. MILLAR: It's K2.2, and we'll bring those to the
18 panel.

19 **EXHIBIT NO. K3.2: SEC COMPENDIUM.**

20 MR. RUBENSTEIN: There's compendiums for all the Union
21 panels.

22 And on the final page of the compendium, that's page
23 59, we had asked an interrogatory to TCPL based on their
24 supplementary evidence. And we asked them:

25 "Considering the termination by Enbridge of the
26 Memorandum of Understanding, does TCPL still
27 believe that it's prudent for Union to build its
28 Parkway West loss of critical unit compressor?"

1 And TCPL responds:

2 "It is TransCanada's view that the MOU remains in
3 full force and effect, and TransCanada has filed
4 a Statement of Claim in the Ontario Superior
5 Court seeking adherence by Enbridge to the terms
6 and conditions of the MOU. TransCanada believes
7 that the facilities proposed by Union in this
8 application will be required if..."

9 And provides three conditions, and then says:

10 "However, if any of the above requirements do not
11 come to pass, there should be a complete
12 reassessment of the facility requirements to
13 ensure that redundant capacity is not
14 constructed."

15 Is it -- so I want to walk through each three of those
16 conditions.

17 Is it Union's view that all of the capacity requests
18 included in this application actually materialize?

19 MR. ISHERWOOD: Yes.

20 MR. RUBENSTEIN: Is it Union's view that all of the
21 downstream pipeline facilities are in fact approved and
22 built that the LCU will be required?

23 MR. ISHERWOOD: Yes.

24 MR. RUBENSTEIN: And is it Union's view that all
25 expiring Union M2 (sic) contracts will be renewed at
26 current levels? Or are or will be renewed?

27 MR. ISHERWOOD: Our evidence talks to our assumption
28 is that the Dawn-to-Kirkwall contracts are not renewed, and

1 that's built into the calculations in terms of turnback.
2 And for the most part, not all, but most of the Dawn --
3 there's a small component of Dawn-to-Parkway not renewed,
4 but that's also built into the analysis.

5 MR. RUBENSTEIN: All right. My final set of questions
6 -- and I'll put them to you but you might push them off to
7 panel 3 -- I originally thought they might be better for
8 panel 3, but some of the questions that were asked earlier
9 by Mr. Wolnik, you may be able to answer them -- be in a
10 better position.

11 If I can take you to the compendium, pages 12-14, we
12 provided an excerpt from the discount cash flow analysis
13 that was undertaken for the Brantford-to-Kirkwall project.

14 And if we see the gas supply savings, cost savings,
15 now, this was based on the original applications filed, not
16 based on the compliance tolls; correct? This was not
17 updated in the addendum that was filed on August 23rd?

18 I'm seeing 28 million, not the revised numbers.

19 MR. BIRMINGHAM: Okay. I think, Mr. Rubenstein, if we
20 want to walk through this schedule, probably leave it for
21 panel 4. I'll be back with that one, but our economics
22 experts will also be here.

23 MR. RUBENSTEIN: Okay. That's fine. Those are my
24 questions.

25 MS. CHAPLIN: Thank you. Mr. Shrybman?

26 **CROSS-EXAMINATION BY MR. SHRYBMAN:**

27 MR. SHRYBMAN: Thank you very much. I'm Steven
28 Shrybman; I represent the Council of Canadians. I may

1 stand up from time to time because I'd like to see Mr.
2 Henning, who my questions will be directed at, as he
3 answers them.

4 I want to start, Mr. Henning, by asking you to turn up
5 our interrogatory requests, and this is Exhibit I.A1.UGL,
6 and our first question, which is about supply risk,
7 particularly with respect to the Marcellus and Utica shales
8 that figure so prominently in the argument for these
9 projects.

10 And you'll see the first question we ask is for you to
11 provide an assessment of a supply risk with respect to
12 these two shale formations.

13 And your answer -- or Union Gas's answer, to be more
14 precise -- refers us to their answer to our question 3 and
15 2, in answer to Staff Interrogatory 5(a).

16 And I'd like to take you to those, if you could turn
17 up 3, then.

18 Your response here or the response here basically
19 concerns the regulatory risk associated with the gap that
20 now appears to exist between the reality of environmental
21 impacts and public health impacts associated with shale
22 gas, and the extent to which regulation actually
23 effectively addresses those impacts.

24 And you begin by referring to -- or the evidence or
25 the response begins by referring to the moratoria in place
26 in Quebec and New York State.

27 And on page 2 of your response, you indicate that you
28 -- for the purposes of your estimates of the future supply

1 from these shale plays, that you have not assumed that
2 there will be any relaxation of those moratoria; is that
3 right?

4 MR. HENNING: That's correct.

5 MR. SHRYBMAN: And is that ad infinitum? Is that just
6 going forward, that those moratoria will remain in place?

7 MR. HENNING: We have run our base case analysis
8 through the year 2035, and within the base case we don't
9 have any production within New York or Quebec.

10 MR. SHRYBMAN: Right. And do you predict that other
11 jurisdictions might declare moratoria in the years ahead?

12 MR. HENNING: I suppose it's possible. We haven't
13 forecast or built into our forecast any particular
14 additional moratoria.

15 MR. SHRYBMAN: Okay. With respect to the regulation
16 of other environmental impacts, you've indicated that your
17 models do take into account the likelihood of a carbon tax
18 or some type of charge related to methane gas emissions
19 from this particular source, but beginning only in the year
20 2023; is that correct?

21 MR. HENNING: With specific respect to the United
22 States policy above and beyond those policies that already
23 exist, such as Régie and out in California, as well as the
24 implicit aspects of renewable portfolio standards, that's
25 correct.

26 We only look at -- in the 2023 time frame for
27 additional federal mandates.

28 MR. SHRYBMAN: And do you have an estimate of what

1 price impact that might have on this particular -- on gas
2 from this particular type of supply?

3 MR. HENNING: I'm trying to think the best way to
4 answer it, because obviously those changes have impacts
5 throughout the overall system.

6 I don't have one specifically for this type of supply,
7 no.

8 MR. SHRYBMAN: What about the whole question of public
9 health impacts, which I -- and certainly our evidence
10 indicates is emerging as a growing concern. Have you
11 looked at that, and the measures that would be necessary to
12 address those impacts and the costs associated with those
13 measures?

14 MR. HENNING: Well, as you're aware, there's an awful
15 lot of complexities about that and discussions that go in
16 both ways.

17 ICF has been involved in an examination of one
18 particular public health impact in the City of New York,
19 where New York still has a fair amount of residual fuel oil
20 that's burned in the city. And we did an analysis with the
21 mayor's office in the City of New York, looking at the
22 health benefits associated with shifting to natural gas or
23 bio-diesel in that particular instance.

24 We have not done a comprehensive analysis of
25 attempting to internalize all externalities associated with
26 energy or, for that matter, anything else, land use, those
27 sorts of things. So I can't say we did it comprehensively,
28 but we have looked at health impacts in some instances.

1 MR. SHRYBMAN: Well, as I understand your answer, the
2 health impact study that you're referring to has to do with
3 burning oil in New York City. I'm asking about the health
4 impacts that I gather are local or regional associated with
5 fracking.

6 Have you looked at those impacts and what measures
7 would be necessary to address them?

8 MR. HENNING: Well, as I've said before, what we have
9 done is we've looked at cost impacts for certain individual
10 aspects of it. So, for example, we have looked at things
11 you might -- that might be subject to in future regulations
12 or in best practices, such as that are being developed in
13 the state of Pennsylvania now, with the Sustainable Shale
14 Coalition.

15 We've looked at that for water-quality issues. We've
16 looked at the ambient air-quality issues associated with
17 running the compressors. We've looked at some of the best
18 practices associated with that.

19 We've looked at a variety of land-use issues and how
20 they're being addressed with shale development in different
21 locations.

22 As I said, we haven't done a comprehensive effort to
23 try to internalize those externalities. There isn't any
24 regulation at this point that has definitively quantified
25 either what those health impacts are or the degree to which
26 they can be mitigated by best practices and regulation
27 that's being developed for shale extraction.

28 MR. SHRYBMAN: Okay. Thank you.

1 I believe, in response to Mr. Poch's question, you
2 indicated that you had actually derived an estimate for the
3 increased cost per well of, I guess, mitigating certain
4 water-related impacts of 7 to 11 percent. Is that correct?

5 MR. HENNING: That's correct. That was an analysis
6 that we had done about a year and a half ago.

7 I would note that the incremental cost impacts of that
8 can change, depending upon what the baseline of the
9 regulation is. I put that out there to illustrate the
10 point that I was trying to make, that incorporating these
11 kinds of changes in regulation are not going to be cost-
12 prohibitive for the development of this resource, in our
13 opinion.

14 MR. SHRYBMAN: And have you derived estimates similar
15 to that for other environmentally-related impacts of shale-
16 gas development?

17 MR. HENNING: Not independently, but I note that,
18 frankly, on the record, in the evidence that Ms. Sunni has
19 provided, if I'm pronouncing her name correctly, she's
20 identified a number of regulatory initiatives that are
21 going on.

22 By and large, all of those have cost-benefit analysis
23 associated with those regulatory initiatives. So those are
24 on the record. But we haven't done any independent
25 assessment of those.

26 MR. SHRYBMAN: Okay. Thank you.

27 So let me turn your attention then to the other part
28 of your response to this first question of ours, and that

1 -- I use the word "you" to refer to the collectivity of
2 Union Gas -- and that's 5, Staff 5.A1.UGL.Staff.5. And
3 this has to do with supply risk as it relates to the likely
4 availability of gas from these particular shale-gas
5 formations.

6 And the first question I want to ask you is about the
7 math in response to 5(a), which is the second paragraph --
8 or the full paragraph towards the bottom of the page, where
9 the question the Board is asking you is -- or staff is
10 asking you is, well, assume there's only 50 percent of what
11 you project to be available in the Marcellus and Utica
12 shales. How would that affect the efficiency and economic
13 feasibility of the proposed facilities? And you go on to
14 describe your projections with respect to the growth of gas
15 supply from these shale formations.

16 And I just don't understand the math, is my first
17 question. Marcellus is now slightly less than 7 billion
18 cubic feet per day, as I see. You're projecting that the
19 Marcellus and Utica shale formations together will be
20 producing a little more than twice that by the year 2020,
21 and then 18 billion cubic feet per day by the year 2025.

22 But then, in terms of your 50 percent calculation, the
23 numbers don't seem to be half of those projected
24 productions, but greater than that. So for example, the
25 15 billion cubic feet per day you predict for 2020,
26 wouldn't half of that be seven-and-a-half, not be 11?

27 MR. ISHERWOOD: Just to help with the math, we're
28 assuming the 7 Bcf that's flowing today would stay there

1 today. So 50 percent reduction is really a 50 percent
2 change. Instead of going from 7 to 15, it only goes up by
3 half, so 7 to 15 is an 8-Bcf-a-day increase, so half of
4 that would be 4. So 7 goes to 4, if it's a 50 percent
5 change in future production.

6 MR. HENNING: But also, just to be clear at this
7 point, when the time we were looking at that, the 7
8 estimate was there, the state of Pennsylvania has released
9 all of its new well evidence. It comes out in six-month
10 blocks. And right now the Marcellus production is probably
11 closer to 9 billion cubic feet a day, rather than 7, as we
12 sit here today.

13 MR. SHRYBMAN: So your number, the Marcellus number,
14 so 2012 number, so you're saying the 2013 number is 9.

15 MR. HENNING: As of the middle of 2013. By the end of
16 2013 it will be higher again.

17 MR. SHRYBMAN: Right. So has that changed your
18 projections for the years 2020 and 2025, or were you
19 anticipating that growth?

20 MR. HENNING: Our more recent base case is adding
21 additional production.

22 One of the things that's happening is that the -- as
23 is noted in some of the evidence on the record, shale gas
24 has a relatively steep initial decline curve associated
25 with its production. One of the issues of debate, as we've
26 looked in shale gas, is how does that decline curve change
27 over time.

28 And we have been -- ICF does analysis of

1 unconventional resources all throughout North America. So
2 we do a very large statistical analysis that we most
3 recently completed in Pennsylvania, and our estimates now
4 are that the estimated ultimate recovery per well -- that's
5 the amount of gas that -- shale-gas wells that have been
6 drilled in the Marcellus and Pennsylvania already are
7 producing over their lifetime has now increased to
8 6.88 billion cubic feet. That's for in -- each of those
9 individual wells on average. The newest ones are adding
10 even more, in terms of the estimated ultimate recovery.

11 So what that's starting to tell us, now that we have
12 enough production history, is that that decline curve is
13 starting to flatten out more than we thought it was
14 previously.

15 So once again, the shale resources that we're looking
16 at are exceeding expectation, in terms of their ability to
17 deliver natural gas.

18 MR. SHRYBMAN: Okay. Well, I want to ask you a few
19 questions about that. And the chart that I found helpful
20 in your evidence is that -- is in Schedule 4.7 at page 23
21 of 36. If you could turn that up.

22 MR. HENNING: I'm sorry, could you give me that number
23 again?

24 MR. SHRYBMAN: It's in your evidence, at page 23 to
25 26, and I believe it's Schedule 4.7.

26 MR. HENNING: I'm there.

27 MR. SHRYBMAN: Now I've lost it.

28 Sorry, I wanted to ask you about the -- so it's

1 Schedule 4.7. It's Exhibit 4-5. That's it.

2 So I believe you were commenting on the sharp decline.
3 There is a pattern that you can certainly discern from the
4 older shale plays. Well, to begin with, we're talking
5 about a development here which is a little more than five
6 years old. Is that fair to say? The development being the
7 ability to, you know, to fracture gas, to fracture shale
8 and extract gas using horizontal drilling and a whole new
9 technology; is that fair?

10 MR. HENNING: Not completely. I wouldn't agree with
11 that characterization.

12 The Barnett shale is much older than that in terms of
13 its development. It was really starting to bring upon some
14 of the initial well technologies back around 2000, 2001.

15 MR. SHRYBMAN: I take your point. It's the exception,
16 though. Most of the others are maybe a half dozen years
17 old, and Utica not nearly that old and the Canadian shale
18 play not that old either.

19 MR. HENNING: That's correct. This had been a rapid
20 and almost complete transformation of the natural gas
21 exploration and production industry in North America. It's
22 the reason we're no longer looking at Henry hub gas prices
23 at \$9 to \$10, and we're looking at Henry hub at \$3.50 and
24 \$4. And it's been a rapid transformation.

25 MR. SHRYBMAN: Right. And so the pattern that I think
26 your chart reveals -- and this is true of Mr. Hughes'
27 evidence, which has been introduced on our behalf -- is
28 that you've got a very quick ramp-up. And then even within

1 a half-decade, you've got a fall-off in terms of
2 production. You've got a -- it starts to flat-line, or
3 according to Mr. Hughes, even decline.

4 MR. HENNING: Yes, and I found that very interesting
5 in Mr. Hughes' evidence, because our statistical fix that
6 we have done in all of the shale plays throughout North
7 America indicate that in fact that decline starts to
8 flatten out. And in fact, the most recent ones that we
9 have -- what we're really talking about is what's called
10 the hyperbolic decline curve, and the issue as to how it
11 fits statistically.

12 And each time we get more and more well data, we wind
13 up having an improvement in terms of what that winds up
14 looking like.

15 And this is a lot of mathematics that our geologists
16 wind up playing with, and the statisticians do, but the
17 reality is simple, that we're continuing to add more and
18 more shale gas, drilling fewer wells than were anticipated.
19 We've had very low gas prices for a while.

20 And the shift has occurred as to where those wells are
21 being drilled. The Haynesville has slowed down, but other
22 areas have increased.

23 The bottom line, if you will, in terms of this, is
24 that the extent of that resource is huge. And ICF's
25 estimating at this point, just using current, today
26 technology, the resource is more than 150 years at current
27 levels of consumption in Canada and the United States.

28 MR. SHRYBMAN: Yes. So I want to ask you about, if I

1 understand your comment, about new wells somehow revealing
2 even greater potential reserves of shale gas, in light of
3 Mr. Hughes' evidence that, really, what -- the pattern of
4 development of a particular shale play is that there's a
5 very quick ramp-up at the beginning as companies look for
6 the sweet spots in a shale play, not -- you know, in a
7 particular shale play not all of the area of the shale play
8 is going to be as productive as others. You would agree
9 with that?

10 MR. HENNING: I would agree with that statement.

11 MR. SHRYBMAN: That there are areas of high
12 productivity? He calls them "sweet spots." Is that a
13 common term?

14 MR. HENNING: It is, but I would note -- yes, it
15 certainly is a common term. I would note that in the
16 development, if you look at the time series of the
17 estimated ultimate recoveries per well -- this is the
18 amount of gas that is being produced by each well over its
19 lifetime -- in the Haynesville, there was a positive upward
20 slope. Initially it was being developed at about three
21 billion cubic feet from a single well. By the time we
22 reached 2010, it was up to 10 billion cubic feet for a
23 single well.

24 If I look at the Marcellus, and I look back to the
25 wells being drilled, say, in January of 2010, it was
26 bringing an average of a little under four billion cubic
27 feet per well.

28 MR. SHRYBMAN: Can I -- can I --

1 MR. HENNING: And if I look at the -- excuse me, I'd
2 like to finish, because this is very important.

3 MR. SHRYBMAN: I just want to ask you what you're
4 referring to there, because that would be helpful. What
5 are you reading from there?

6 MR. HENNING: I am reading from an analysis of the
7 Pennsylvania Marcellus production that ICF completed on the
8 newest release of the Pennsylvania wells that have come out
9 this summer.

10 MR. SHRYBMAN: And is that in evidence in this
11 proceeding?

12 MR. HENNING: I'm not sure it is at this point. I'm
13 trying to give you the knowledge that I have, but I don't
14 think it has been submitted yet. I'd be happy to submit
15 it.

16 MR. SMITH: It hasn't been filed. We could provide
17 it.

18 MR. SHRYBMAN: Well, perhaps it should be. If I can
19 have your undertaking to file it, that would be helpful, I
20 suppose. Though I'd like to have an opportunity to review
21 it and ask questions about it, but...

22 MS. CHAPLIN: Well, you have the opportunity to ask
23 the questions now, and Mr. Henning is giving the evidence
24 now. So what would you foresee --

25 MR. SHRYBMAN: You know, I'm not going to ask for an
26 undertaking. I mean, this is somewhat taking me by
27 surprise. But I suppose if Union Gas wants to file it,
28 I'll let them take that initiative.

1 We simply disagree in terms of the implications of the
2 fact that, yes, there are sweet spots. The technology
3 improvement is outstripping any effect of depleting those
4 sweet spots.

5 And we look at that very, very carefully. We did in
6 this evidence, and we've looked at it again more recently.

7 MR. SHRYBMAN: Okay. So -- but I would like you to
8 comment on this very point, is Mr. Hughes' evidence. And
9 that, perhaps the best place to find that is in our
10 response to Union Gas interrogatories, M.COC.UGL.1.

11 MR. HENNING: I don't think I have that in front of
12 me. Give me just a second so I can get that in front of
13 me.

14 MR. SHRYBMAN: Yeah. It's question 10, which is on
15 page 5 of 24.

16 MR. HENNING: Okay?

17 MR. SHRYBMAN: And in particular, the chart on page 6
18 of 24. There you go.

19 MR. HENNING: Could you give me that page number
20 again, please?

21 MR. SHRYBMAN: Yeah, it's page 6 of 24, 5 and 6 of 24.
22 But the chart on page 6 of 24, which should be up on your
23 screen, I think.

24 MR. HENNING: I'm there.

25 MR. SHRYBMAN: Okay. On the preceding page, in order
26 to introduce this chart, in response to a question about,
27 you know, the impact of -- he's coming to the question of
28 the impact of technological improvement. He says, you

1 know, reading from the third line down there:

2 "The Marcellus is a new play, and as with all
3 shale gas plays, production rises rapidly as
4 sweet spots are defined and better technology is
5 applied. Much of this production growth is due
6 to a drilling boom to meet leasing commitments
7 and competition to find and develop the sweet
8 spots and was irrespective of gas price. As is
9 clearly pointed out in my evidence, the Marcellus
10 is highly unlikely to escape the production
11 trajectory growth of the more advanced shale
12 plays."

13 Do you disagree with his comment about the early
14 drilling in a shale play being largely an effort to find
15 the sweet spots and to meet leasing commitment drilling
16 schedules?

17 MR. HENNING: No, I wouldn't disagree with that. I
18 think what he's referring to is commonly known as
19 delineation, in terms of what the resources look like.

20 Ironically, what that winds up doing is it increases
21 the costs per well initially while you're doing that kind
22 of level of delineation, and that once you get into more of
23 the production series you can wind up going back,
24 increasing the number of wells per pad, increasing the
25 number of well completions per well. And we're starting to
26 see that impact now.

27 In the context of the Marcellus, the resource in place
28 is so large, well over a thousand trillion cubic feet, I

1 would suggest that we have a very, very long way to go.

2 Moreover, in our experience, when you look at even
3 both conventional and unconventional resources, the time
4 frame for moving in and out of a particular field is on the
5 order of 35 to 50 years, and so maybe we can start seeing
6 some of the impact of this in very far out years, although
7 the technology will continue to improve.

8 But fundamentally, I'd disagree with the
9 characterizations here, and in our experience it's
10 inconsistent with the production data that we've seen from
11 the Marcellus.

12 MR. SHRYBMAN: Okay. Well, let me ask you then about
13 the chart on the following page, which, as I understand it,
14 indicates that, contrary to the view that I think you just
15 expressed, that actually productivity per well is
16 declining, not increasing, except for -- there are a couple
17 of exceptions here. The lines for Marcellus seems to --
18 that line seems -- that's a blue dotted line. That seems
19 to -- that ramps up very quickly from 2008 to 2010,
20 continues to go up, but at a much more moderate rate, but
21 in Woodford and Haynesville and the Barnett, you've got a
22 decline in productivity to well, which is consistent with
23 Mr. Hughes' theory, and I think you agreed with him to a
24 degree that, you know, as you tap out the sweet spots and
25 move out from the most productive regions of a shale play,
26 you get less and less out of each well that you drill.

27 MR. HENNING: No, I certainly wouldn't agree with the
28 way you characterized it at the end. I think what I said

1 was that over an extended period of time you're going to
2 look for the sweet spots.

3 We haven't seen that in most of these formations. I
4 would suggest that the thing that Mr. Hughes is missing
5 here is that what was going on in terms of prices, and both
6 prices for natural gas as well as prices for natural-gas
7 liquids and condensate.

8 So for example, the Haynesville that you see here,
9 with that decline going on, has to do with the fact that
10 people were shifting out of the Haynesville because it's a
11 very dry gas formation. It doesn't have the natural gas
12 liquids and it doesn't have the condensate, which had a
13 very, very large price advantage over dry natural gas right
14 around the periods of 2009/2010. This was when natural-gas
15 prices were dropping very quickly.

16 So what you get with the well quality, in terms of
17 this particular period, is a function of the fact that
18 people were finishing up the wells that they had planned
19 that way in those formations. We happen to believe that
20 the Haynesville will turn around again when natural-gas
21 prices have an extended period of \$3.50 to \$4.50 in North
22 America. And that's why in fact in my evidence and the
23 chart you see here the Haynesville starts going back up
24 again.

25 We're not at a point where this is a mature resource,
26 and the graphics that are shown here, focusing on those
27 particular formations that tend to be the dry-gas
28 formations, are mixing the two forces that are going on.

1 MR. SHRYBMAN: Well, I can understand your answer as a
2 commentary on why fewer wells might be drilled -- in other
3 words, the price goes down, so there is not as much
4 drilling activity. But I don't understand your answer as a
5 comment on why the wells that are being drilled are less
6 productive.

7 MR. HENNING: Because the wells that are being drilled
8 are finishing off in particular leases that are happening
9 there and not going to the other areas which will have the
10 opportunity to re-establish the ultimate recovery per well.

11 We believe that once you start getting those price
12 signals to return to the Haynesville, we're going to start
13 going back up again to those kinds of levels with initial
14 productions that were much higher than you've seen over the
15 past two years.

16 MR. SHRYBMAN: So with respect to the wells that this
17 chart is referring to, you're telling me that you know what
18 the type of well is, where it is, and the shale play? It
19 has nothing to do with the sweet spot having been
20 exhausted? Is that what you're saying?

21 MR. HENNING: We track every one of those wells.

22 MR. SHRYBMAN: All right. You see -- have you had
23 occasion to estimate over the past half dozen years the
24 likely, you know, availability of shale gas and what the
25 particular shale play production projections are?

26 MR. HENNING: Yes. In fact, Board Staff retained ICF
27 in 2010 to do a projection back in that era, and we had our
28 graphics that looked similar in shape to what you have in

1 my evidence here, but at much lower levels.

2 We've been looking at unconventional, all
3 unconventional, shale, tight gas, coal bed methane, in-
4 depth since we've been doing our modelling exercises really
5 that began in 1997.

6 MR. SHRYBMAN: And so would you have estimates of the,
7 you know, supply growth in the shale plays that you have
8 depicted in your evidence at 23 of 36 for at least the five
9 big ones that, you know, you would have made in 2005 or
10 2008?

11 MR. HENNING: I would have to check whether we had it
12 as early as 2000 and -- I'm not sure we had it as early as
13 2005. I know we had it in 2010. It was reported in the
14 Board Staff report. And I would suspect that we were
15 starting to show similar charts to this as early as 2008 or
16 2009. I'd have to go back and check.

17 This particular graph is something that we produce
18 quarterly. And every time we've looked at it, it's gotten
19 bigger and bigger and bigger.

20 MR. SHRYBMAN: What I'm trying to get at is how good
21 your crystal ball is, in terms of, you know, having
22 projected the kind of fall-off in production that your
23 present chart indicates. And I'm wondering if I could have
24 an undertaking from you to share with us your projections
25 from 2008-2010, for example?

26 MR. HENNING: Well, certainly the Board Staff report
27 is on the record, and it's been filed, and we can certainly
28 look at that as a snapshot of 2010. I'm also a little bit

1 confused and want to understand, because we're not showing
2 shale gas falling off. We weren't in 2010; we're not now.

3 The production decline curve of an individual well
4 does come down. I'd agreed with that. But we're showing
5 shale production to continued increase. Without this,
6 there isn't going to be natural gas at affordable prices in
7 North America, whether it comes from the Marcellus or
8 whether it comes from western Canada.

9 But fortunately we're in an environment now where we
10 have an extremely large resource that can be produced at
11 economic prices. So I guess I'm just -- I'm a little -- I
12 just am confused when you talked about a fall-off in our
13 projection, because we've never shown a fall-off. We just
14 had differences in the rates of increase.

15 MR. SHRYBMAN: Right. Well, I may be misreading your
16 chart then. I'm looking at on a per shale play basis, a
17 fairly steep curve that then levels off. I suppose -- I
18 can't quite see the colours, but with Barnett you still
19 got, I suppose, a moderate increase.

20 Those early shale plays seem to become quite flat, you
21 know, within a five-year period, and then you're projecting
22 that they will continue to produce over a 20-year period.

23 But it's that decline that I'm referring to. I
24 suppose it's not -- you don't show the number actually
25 declining. I think Mr. Hughes suggests it might. But you
26 show a flat line, is what I'm referring to, a virtual flat
27 line.

28 MR. HENNING: In the case of the Barnett, I think we

1 actually do show that starting to turn over by the end of
2 the forecast period, but effectively it's pretty flat.

3 Mr. Hughes -- and a very small minority of others --
4 has been making this particular case on the decline, rates
5 associated with it. And it's just a minority opinion at
6 this point in time, and it's becoming even more -- I have
7 to reword that. It isn't such a way as even more minority,
8 but there are fewer and fewer that are holding that opinion
9 when analyzing unconventional natural gas resources.

10 MR. SHRYBMAN: Do you remember the projection --

11 MS. CHAPLIN: Sorry, Mr. Shrybman, how much longer
12 would you like to be? Because you are over your 20
13 minutes.

14 MR. SHRYBMAN: I would like to have another 10 or 15
15 minutes, Madam Chair. This is taking longer than I
16 expected it to.

17 MS. CHAPLIN: Well, we will give you 10 minutes.

18 MR. SHRYBMAN: All right. Thank you.

19 MS. CHAPLIN: That's twice, that's double what you
20 were allocated.

21 MR. SHRYBMAN: Yes, okay. Thank you, Madam Chair. I
22 appreciate that.

23 I'm thinking of the enthusiasm for coal bed methane
24 that I understand was very a much part of the projection of
25 where we would get our natural gas from at the end of the
26 20th century. Do you recall that?

27 MR. HENNING: Yes, I do.

28 MR. SHRYBMAN: And is it fair to say that, according

1 to the National Energy Board, that coal bed methane was
2 going to be 75 percent of our conventional gas supply or
3 something like that by now?

4 MR. HENNING: At one points in time, that was.

5 MR. SHRYBMAN: So there was dissenters then, I
6 imagine, were there?

7 MR. HENNING: Yes, there were.

8 MR. SHRYBMAN: And they were correct?

9 MR. HENNING: No, they were not.

10 MR. SHRYBMAN: All right.

11 MR. HENNING: The reason that they were not is that
12 the development of the technology -- and I'm trying to
13 locate an interrogatory that we had that looked at the
14 long-term cost curves of shale production vis-a-vis the
15 other unconventional gas supplies, including coal bed
16 methane. The reason coal bed methane is not being produced
17 as much at this point in time is because the cost of
18 producing shale is infra-marginal to coal bed methane or
19 traditional supplies.

20 You've brought down the price. You could have
21 produced more coal bed methane, but you don't need to to
22 clear the market, because shale gas is cheaper per unit to
23 produce.

24 And I'm not finding the particular graphic, but I will
25 be able to. It's hard to talk and look at it at the same
26 time. If you give me a second, I may be able to locate
27 that.

28 I'm sorry, this is taking me a little longer than I

1 thought. If you'll give me just a moment?

2 MR. SHRYBMAN: With my eye on the clock, I wonder if
3 you might provide that answer by way of an undertaking and
4 we can move on?

5 MR. HENNING: It is in Exhibit 1.A1.UCG.COC.6, page 2
6 of 2.

7 MR. SHRYBMAN: Right.

8 MR. HENNING: And if we can bring that up, what you're
9 going to see is that the long-term supply cost curves of
10 the different types of natural gas, including coal bed
11 methane -- and where the shale gas is, shale has much more
12 gas that can be produced at lower costs.

13 So what's happened to coal bed methane is not that the
14 resource wasn't there and it could have been produced;
15 what's happened to cold bed methane is that it got beaten
16 by the technology of shale.

17 MR. SHRYBMAN: Okay. Thank you.

18 I want to ask you about a competition for Utica and
19 Marcellus shale gas.

20 In the evidence filed in this proceeding -- I have
21 page 21 of 121. This is in the update filed July 3. I
22 don't think you need to pull this up, but there is a --
23 there's a description of the various competing demands for
24 western shale gas from the -- western shale gas meaning
25 from Canada, and LNG is mentioned and the tar sands or the
26 oil sands is mentioned.

27 And I have a question about LNG to begin with. Is
28 there an LNG terminal that is operating on the west coast

1 of British Columbia?

2 MR. HENNING: Not at this time.

3 MR. SHRYBMAN: Is there one under construction?

4 MR. HENNING: The site work has been begun at Kitimat,
5 but it is not under full construction and the final
6 decision has not been fully made, is my understanding.

7 MR. SHRYBMAN: I couldn't find a similar discussion of
8 the competition for Marcellus and Utica shale in the
9 evidence. Or did I miss that?

10 MR. HENNING: I'm not -- I don't know if I can point
11 to it directly, what it's in there. Our base case does
12 look at that.

13 At the time of the October 12th base case, we were
14 predicting that there would be about two billion cubic feet
15 per day of LNG exports off of the west coast of Canada, and
16 about four billion cubic feet a day off of the Gulf coast
17 of the United States.

18 We've since increased those estimates, both in Canada
19 and in the Gulf coast.

20 And importantly to your question, within our flow
21 dynamics we also now include the recently FERC-certificated
22 Cove Point LNG export terminal.

23 So that goes to a question of some competition from
24 shale gas and Marcellus.

25 MR. SHRYBMAN: Well, could I have an undertaking for
26 you to produce that analysis, which I gather isn't part of
27 the evidence that's been filed.

28 MR. HENNING: That's fine.

1 MR. MILLAR: J3.6.

2 **UNDERTAKING NO. J3.6: TO PRODUCE ANALYSIS OF**
3 **COMPETITION FOR MARCELLUS AND UTICA SHALE GAS.**

4 MR. SHRYBMAN: My last question is about just the
5 character of this, of shale gas development, and the policy
6 context within which it's taking place.

7 Is it fair to say that this has transformed the --
8 shale gas and fracking has transformed the energy economy
9 of North America?

10 MR. HENNING: Yes, that -- absolutely no doubt.

11 MR. SHRYBMAN: Is there government policy that -- I
12 suppose in the United States there is. Is there in Canada
13 any government policy to guide the -- that you're aware of,
14 to guide the way in which this resource is developed and
15 distributed?

16 MR. HENNING: I'm not aware of any.

17 MR. SHRYBMAN: That's my last question, Madam Chair
18 and members of the Board.

19 MS. CHAPLIN: Thank you. Mr. Millar?

20 **CROSS-EXAMINATION BY MR. MILLAR:**

21 MR. MILLAR: Yes. Thank you, Madam Chair. And good
22 afternoon, panel. Virtually all of my questions have been
23 asked and answered, so I'll be very brief. Just a couple
24 of what I think are clarification questions with respect to
25 the LCU.

26 And maybe the best platform from which to ask these
27 questions would be if we could pull up BOMA Interrogatory
28 54, which is Exhibit I.A1.UGL.BOMA 54.

1 And if we could just scroll down towards the bottom --
2 actually, that's a perfect spot right there. It's the
3 response to (a), which includes a chart.

4 And as I understand it, this is a chart showing the
5 design day flows through Parkway compression; is that
6 correct?

7 MR. RIETDYK: That's correct.

8 MR. MILLAR: I think your microphone is off.

9 MR. RIETDYK: That's correct.

10 MR. MILLAR: Okay. And we see a fairly steady
11 progression dating back to the winter of '05-'06, straight
12 through to, I guess, the forecast for winter of '14-'15, at
13 which point we're at about 2.3 petaJoules a day; is that
14 correct?

15 MR. RIETDYK: That's right.

16 MR. MILLAR: And first of all, am I correct that not
17 everything that goes through Parkway actually requires
18 compression?

19 MR. RIETDYK: That's also correct. Volumes are
20 delivered to Enbridge on the suction side of Parkway, so it
21 doesn't go through the compression.

22 MR. MILLAR: But the 2.3 petaJoules we're showing at
23 the bottom of this chart do require compression?

24 MR. RIETDYK: They do require compression.

25 MR. MILLAR: And if I understand the application, you
26 expect that the design-day flow will increase by another
27 approximately 1.1 petaJoules a day by the end of 2015; is
28 that right?

1 MR. RIETDYK: That's correct.

2 MR. MILLAR: And that would bring it to a total of 3.4
3 petaJoules a day?

4 MR. RIETDYK: Yes, that's correct.

5 MR. MILLAR: And I guess perhaps the reason you're
6 building compressor D is to account for that gas, to be
7 able to push that.

8 MR. RIETDYK: That's right. We require the compressor
9 D to compress those additional volumes.

10 MR. MILLAR: Okay. My question is -- and maybe it was
11 in the evidence somewhere, but we couldn't find it -- this
12 incremental 1.1 petaJoules, does all of that require
13 compression?

14 MR. ISHERWOOD: Yes, it does.

15 MR. MILLAR: Yes, it does. Okay.

16 MR. ISHERWOOD: Yes.

17 MR. MILLAR: Thank you. Those are my questions.

18 MS. CHAPLIN: Mr. Smith, do you have any redirect?

19 MR. SMITH: I do. Hopefully not lengthy, but I do
20 have a few questions.

21 **RE-EXAMINATION BY MR. SMITH:**

22 MR. SMITH: Mr. Birmingham, I'm going start with you.
23 You had a discussion with Mr. Wolnik about cost recovery in
24 a subsequent prudence review. Just so that it's on the
25 record, you talked about a settlement agreement. Is APPrO
26 a party to the settlement agreement of your IRM framework?

27 MR. BIRMINGHAM: They were a party involved in the
28 settlement agreement, yes.

1 MR. SMITH: You asked -- you were asked about
2 subsequent prudence review. My understanding is that Union
3 in this application has asked for, among other things, an
4 accounting order in relation to the Parkway West and
5 Brantford-Kirkwall facilities; is that correct?

6 MR. BIRMINGHAM: That's correct, in order to account
7 for any cost variances associated with the projects.

8 MR. SMITH: So just so that we can close the loop on
9 this, how do you see the deferral accounts operating,
10 having regard to the requests that have been made by Union
11 in the application for pre-approval?

12 MR. BIRMINGHAM: To the extent that there is a capital
13 cost variance associated with one or both of the projects,
14 there will be balances, either positive or negative, in
15 those deferral accounts, and we would bring them forward in
16 our annual application to dispose of the deferral account
17 balances. The Board would have an opportunity to view the
18 prudence of those costs at the time.

19 MR. SMITH: Mr. Isherwood, you were asked -- this is
20 some time ago, but it was earlier today -- you were asked
21 by Mr. Quinn on behalf of FRPO about 2015 and 2016, and you
22 said -- and my notes are a little bit imprecise -- but you
23 said you had some optionality around 2016. Do you recall
24 that?

25 MR. ISHERWOOD: Yes.

26 MR. SMITH: What is it that you were referring to?

27 MR. ISHERWOOD: The volumes in 2015 are well-defined,
28 in terms of what we're asking for and how they support the

1 projects. 2016 is still, I can say, under review. But
2 there is a proposal being formed that would be part of our
3 2014 cost-of-service case -- I'm sorry, not cost of
4 service, rate case, that will see potentially elimination
5 of the obligation to deliver. And that's still subject to
6 Board approval and is still subject to further discussion.

7 So depending on how the turnback volumes post-2016
8 impact future builds, it will depend a lot in terms of if
9 the obligation to deliver is resolved in the next hearing.

10 MR. SMITH: So let me just ask you point blank: What
11 is the impact of the optionality you're talking about on
12 these applications or whether they're in the public
13 interest?

14 MR. ISHERWOOD: It has no impact on these applications
15 at all.

16 MR. SMITH: You were asked -- and I don't propose to
17 go over this, but you were asked many questions about the
18 gas cost savings, and no doubt there will be more
19 discussion about this when the joint panel comes up, but I
20 would like your reaction to this question now.

21 The proposition, as I understand it from GEC and Mr.
22 Wolnik, potentially, was regarding the impact of declining
23 revenues to TransCanada of moving from long-haul to short-
24 haul, and equally the cost associated with a bridging
25 contribution. Do you remember those questions?

26 MR. ISHERWOOD: Vividly.

27 MR. SMITH: Couldn't have expected a different answer
28 to that.

1 But I would like your answer to this question, which
2 is, if there is that cost, why, from Union's perspective,
3 did you do the deal, and why would you agree to a bridging
4 contribution?

5 MR. ISHERWOOD: The deal for us, and I would say for
6 the other two utilities, is very important. It's very
7 critical to move Ontario and Quebec forward.

8 For us, having access to Dawn and having access to
9 Niagara for our own customers as well as customers that are
10 direct-purchase is fundamental to moving forward. It's
11 very important for industrials and our own customers to
12 have gas that's competitive with our neighbouring
13 jurisdictions.

14 In order for industrials to compete we need access to
15 Dawn. It's going to be through Dawn that Marcellus and
16 those other supply basins that the training has talked
17 about, it will be through Dawn and through Niagara. And to
18 get access we need to build these projects to get back to
19 Dawn.

20 From our perspective, the current methodology before
21 us, in terms of the TCPL framework, is unworkable long-
22 term. We know there's cost consequences developing and
23 accruing as we speak that will be disposed of in 2017 and
24 beyond, and it's our belief that those consequences will be
25 equal to or greater than the increases we're talking about
26 here.

27 As we saw with the TCPL open season back in July, the
28 framework does not allow them to build today to provide

1 access to Dawn. The fuel they're exposed to -- the toll
2 differential, excuse me, in short-haul to long-haul, if
3 you'll recall, the open season held in July, the toll to go
4 from Parkway to our EDA was exactly the same as going from
5 Alberta to our EDA. It was \$1.65 for both cases, which was
6 unreasonable, and that really led to the unwinding of the
7 MOU and all of that process.

8 So it really is unsustainable. What we are trying to
9 do is provide open access to Niagara and Dawn for all
10 customers, the utilities, for new power plants, for
11 industrial customers.

12 Gaz Métro talked about on Friday, they have a large
13 fertilizer plant wanting to locate in Quebec. That
14 investment is threatened because there's no certainty
15 around tolls. Mr. Cabana was quite vivid, in terms of
16 describing that reality, in terms of, they may lose that
17 investment.

18 We've been talking to customers in Atlanta Canada that
19 want to come back to Dawn. They can't do that with the
20 current environment.

21 We're kind of at a standstill, so to break the
22 standstill, to provide this opportunity for all customers
23 equally, you need to be able to get access through that
24 bottleneck.

25 And there's definitely consequences to TCPL. We
26 recognize that. And this agreement allows them to be
27 comfortable that they will have a reasonable chance to
28 recover their costs.

1 And as I tried to point out a few times, we look at
2 the cost consequences of going long-haul to short-haul as
3 being one element, but there's many other elements before
4 us, including new customers coming to Ontario and Quebec
5 that will start to fill the system again as well.

6 TCPL has been very successful selling and reselling
7 contracts in the last few months. That also helps refill
8 the system.

9 So our view is, we can't look at just that one cost
10 consequence in isolation. We have to look at the broader
11 macro picture, and for us it is so important to get Ontario
12 connected to Dawn so that we can be competitive with other
13 jurisdictions. And to fail that, I think Mr. Henning left
14 the comment, I think earlier in the day, or maybe late
15 yesterday, Ontario has a risk of being the most expensive
16 jurisdiction. And that will not attract jobs, it will not
17 attract industry, and we will find ourselves kind of
18 isolated relative to this great change happening in North
19 America, the shale revolution that I think we've ultimately
20 talked about.

21 If we can't get access to that, we're going to be hung
22 out on -- at a long pipeline, going back to a basin that's
23 going to become very, very expensive. And we're trying to
24 settle all the issues in the settlement agreement that are
25 currently on the table and find the win amongst all four
26 parties and to row forward. And if we can't row forward,
27 we're going to be left well behind the rest of North
28 America.

1 MR. SMITH: Thank you very much, members of the panel.
2 Those are my questions.

3 **QUESTIONS BY THE BOARD:**

4 MS. CHAPLIN: Thank you. Following on from that, Mr.
5 Isherwood, I have one question still on that general area.
6 So you've given the explanation for the importance of these
7 projects in terms of enhanced access. But one of the
8 underpinnings of the application was this calculation of
9 gas cost savings.

10 MR. ISHERWOOD: Yes.

11 MS. CHAPLIN: So I'm going to come back to that again,
12 just to see if I can understand it better, because my
13 understanding of the agreement with TCPL and sort of the
14 general expectation is that TCPL more or less is going to
15 be kept whole as a result of this shift from long-haul to
16 short-haul?

17 MR. ISHERWOOD: That's correct.

18 MS. CHAPLIN: So maybe the monies reallocated are
19 moved around, but there's not really -- not driving costs
20 out of the TCPL system. They're still going to be
21 recovered?

22 MR. ISHERWOOD: That's correct.

23 MS. CHAPLIN: And I believe you've also testified that
24 the gas commodity is more expensive at Dawn than at
25 Empress?

26 MR. ISHERWOOD: Yeah, so we have that 92-cent number.

27 MS. CHAPLIN: Right.

28 MR. ISHERWOOD: On the record. So the difference is

1 92 cents.

2 MS. CHAPLIN: So can you explain for me how are there
3 any gas cost savings in that situation? In the broad
4 sense?

5 MR. ISHERWOOD: So in the new framework, if the
6 settlement agreement gets approved by the NEB, there's
7 still the differential between long-haul and short-haul
8 that still drives that \$15.4 million savings.

9 So the way I look at it is we're going from a
10 framework today to the new framework, and that has the
11 costs increasing for long-haul and short-haul. But I think
12 the part that I'd like to think about as well is the
13 current framework, even though there's a lower toll, is not
14 recovering all its costs today, and those costs are
15 unfortunately accumulating in a deferral account that gets
16 dealt with in 2017.

17 So I think people have a comfort level that today's
18 tolls are cheaper. Why don't we just keep going on those
19 tolls?

20 The reality is in four years, in 2017, those costs
21 will become as high as the -- as high as the settlement
22 tolls or potentially even higher. And in the meantime for
23 those four years, if we left it alone and just kept on the
24 compliance tolls, there's no access to Dawn for Ontario or
25 for Quebec. So what the loss is is access to the new and
26 growing supplies in Marcellus and Utica; that's the
27 difference.

28 So to the extent that we can get TCPL comfortable and

1 they can recover their costs, then it opens up the whole
2 world of options and choice for customers to go back to the
3 new supply.

4 MS. CHAPLIN: And have you quantified that broader
5 analysis of access? Or is that something the joint panel
6 may be able to do?

7 MR. ISHERWOOD: Yeah, I think -- and I think, just
8 based on yesterday and today, I think it would be important
9 for the joint panel to come forward with not the only
10 expectations of the tolls in that new settlement, but to
11 also describe why the existing framework is not
12 economically advantageous for Ontario or Quebec, and what
13 that means to us as well.

14 MS. CHAPLIN: Or some sort of quantitative comparison?

15 MR. ISHERWOOD: Yes.

16 MS. CHAPLIN: Thank you. That would be helpful.

17 The Panel has no further questions, so this witness
18 panel is excused with the Board's thanks.

19 And let's press on and...

20 MR. SMITH: Radical changes ahead. I will call Ms.
21 George to come forward, and ask, I believe, three of the
22 six to leave us.

23 MR. ISHERWOOD: I'll be a lot more comfortable up
24 here, then.

25 **UNION GAS - PANEL 3**

26 **Jim Redford, Previously Sworn**

27 **Mark Isherwood, Previously Sworn**

28 **Paul Rietdyk, Previously Sworn**

1 **Michelle George, Sworn**

2 MR. SMITH: I take it that the panel members who are
3 still on the panel remain under oath?

4 MS. CHAPLIN: Yes.

5 **EXAMINATION-IN-CHIEF BY MR. SMITH:**

6 MR. SMITH: I won't go over their qualifications at
7 all.

8 So just, Ms. George, I understand that you are the
9 director of major projects; is that correct?

10 MS. GEORGE: That's correct.

11 MR. SMITH: And you've held that position with Union
12 since 2012?

13 MS. GEORGE: That's correct.

14 MR. SMITH: And you have held positions of increasing
15 responsibility in, generally, the engineering area since
16 approximately 1995?

17 MS. GEORGE: That's correct.

18 MR. SMITH: And I understand that you have a bachelor
19 of engineering and management from McMaster University?

20 MS. GEORGE: That's correct.

21 MR. SMITH: And you are a professional engineer?

22 MS. GEORGE: That's correct.

23 MR. SMITH: And this is your first time testifying
24 before the Board?

25 MS. GEORGE: That's correct.

26 MR. SMITH: Welcome. Members of the panel, I'd just
27 ask - perhaps again through you, Mr. Isherwood -- this is
28 Union's third panel, and I'd ask you to adopt the evidence

1 and interrogatories in relation to issues A4 and A5.

2 MR. ISHERWOOD: We do.

3 MR. SMITH: Thank you. I have no questions in
4 examination-in-chief.

5 MS. CHAPLIN: Thank you. Mr. Brett, I have you as
6 being first for this panel.

7 MR. BRETT: Yes.

8 MS. CHAPLIN: All right. 30 minutes?

9 MR. BRETT: Yes. 30 minutes was -- right. Let me
10 just... yes, that's right.

11 **CROSS-EXAMINATION BY MR. BRETT:**

12 MR. BRETT: I would like to ask -- good afternoon,
13 panel. I'd like to ask if the panel members would
14 collaborate with me and answer my questions directly.
15 Yesterday, I had two, at least two long speeches. I didn't
16 cut you off, as a courtesy, but my time is very strictly
17 restricted. And I cut myself off after half an hour, right
18 in the middle of what was a reasonably, from my point of
19 view, effective cross-examination.

20 So I would ask you not to put me in that position
21 again, or I will have to cut you off much more
22 dramatically. With that --

23 MR. SMITH: Sorry, Mr. -- no, no. Mr. --

24 MR. BRETT: Well, you -

25 MR. SMITH: Sorry, I --

26 MR. BRETT: You're the -- you're the --

27 MS. CHAPLIN: Excuse me, gentlemen. You can direct
28 your comments to me if you have comments.

1 MR. SMITH: With respect, the -- I think we have to
2 take the questions and the answers as they come, and I
3 don't think it's a fair admonishment to the panel.

4 MS. CHAPLIN: All right. Mr. Brett, why don't you
5 continue with your questions?

6 MR. BRETT: All right. Thank you.

7 MS. CHAPLIN: And we will expect direct answers, with
8 the additional qualifications that are required, and we'll
9 also expect efficient questioning.

10 Thank you, Mr. Brett.

11 MR. BRETT: My first question is you -- your current
12 compressor capacity as Parkdale (sic) is 64,500; correct?
13 64,500 horsepower?

14 MR. RIETDYK: So the ISO rating at Parkway is 64,500
15 of the two combined compressors.

16 MR. BRETT: Yes, that's right. That was my question.
17 Thank you.

18 And you're proposing to add two further compressors,
19 each with an ISO rating of 44,5000. So that will be an
20 additional 89,000 at Parkway West; is that correct?

21 MS. GEORGE: That's correct. The LCU unit and the D
22 unit.

23 MR. BRETT: Yes. One you say is for LCU and one you
24 say is for growth; correct?

25 MS. GEORGE: That's correct.

26 MR. BRETT: Now, the notion that you put forward in
27 your evidence, as I understand it, is that you would use
28 one of these compressors only for LCU, and you would use

1 the other compressor only for growth. Is that the case? Is
2 it the case that you will always have one of those two
3 compressors sitting idle under all circumstances?

4 MS. GEORGE: We've responded to that question under
5 A1.Staff 2, part (b).

6 So the way we operate LCU is that we keep that
7 horsepower in reserve. There are times when we may have
8 all four idling or operating in the idling mode to ensure
9 that we can turn it on quickly in the case of an outage,
10 but we will keep the equivalent horsepower in reserve.

11 MR. BRETT: So when you say "keep the equivalent
12 horsepower in reserve" -- thank you for that answer -- you
13 don't mean necessarily keep one entire compressor in
14 reserve? You mean keeping a sufficient amount of
15 horsepower in reserve, an amount of horsepower in reserve
16 that would be sufficient to cover off the -- for the
17 horsepower of compressor B if it should fail; is that
18 correct?

19 MS. GEORGE: That's correct.

20 MR. BRETT: Okay. So that just -- just to be clear,
21 then, you could have -- if we had, for example, three
22 compressors running -- let's assume for the moment we had
23 three compressors at Parkway, the existing two plus one
24 other one, we'll call it compressor X, and it has the same
25 capacity as B, of course, you would make sure that -- you
26 could run those three compressors to deal with an existing
27 load, the existing load was -- you were putting through the
28 compressors, provided that you kept enough spare

1 horsepower, that if B went down you could cover for it; is
2 that right? I think I'm just trying to say what you just
3 said in a --

4 MR. RIETDYK: Yeah, I just want to qualify that so
5 that we're clear. We need an LCU compressor to have the
6 full reserve capacity of the largest compressor on the
7 site. So it can't put one twice the size of it there. So
8 that's why we need C and D, to cover off our failure of one
9 of the others.

10 MR. BRETT: Well, now I don't understand. What I
11 thought you just said to me is that you now have A and B
12 there. A has 20,000 horsepower; B has 44,500. Let's
13 assume we add another compressor, a single compressor. And
14 we don't designate it as LSCU (sic) or growth, it's just
15 one more compressor, the same size as B.

16 Are you saying to me that you always have to leave
17 that new compressor empty, not have it work at all?
18 Because it has to be -- if you're saying that, you're
19 directly -- you're telling me something opposite to what
20 you did a few minutes ago.

21 MR. RIETDYK: No, I think what we're saying is there's
22 two compressors that we're proposing. One is LCU to cover
23 off for the largest compressor on the site, which is
24 Parkway B, and a growth compressor, which is also
25 coincidentally the same size, 44,500 horsepower, for the
26 growth volumes.

27 MR. BRETT: Yeah, I understand what you're proposing,
28 but what we're going to be arguing, I think, and what I

1 want to know, really, from you is, you want four
2 compressors. I think there -- I'm going to suggest to you
3 that in certain -- depending on the growth assumptions we
4 make, which I'll come to in a moment, which we've talked
5 about to some extent yesterday, but depending on what
6 assumptions we make about your increasing throughput over
7 the next two to five years, it is quite possible that you
8 can get by with three compressors over that period. Do you
9 agree with that?

10 Let me put it to you perhaps more graphically. Let's
11 suppose for sake -- let's just suppose with me -- and I
12 don't want to get into -- that Enbridge -- Enbridge
13 currently is accounting for, or is going to account for --
14 let's do it this way -- 800,000 gJs a day of your proposed
15 throughput over the next few years, correct?

16 MR. ISHERWOOD: That's correct.

17 MR. BRETT: That's a pretty straightforward question.
18 Of that 800,000, 400,000 of the Enbridge load is because
19 they want to replace 400,000 of gas that they are already
20 shipping to Enbridge, but shipping it over the northern
21 pipeline, correct?

22 MR. ISHERWOOD: That's not correct.

23 MR. BRETT: Now, the other 400,000 is gas that
24 Enbridge is also already receiving, but they're receiving
25 it at Parkway Consumers, or Parkway Enbridge. And for some
26 reason they would like to switch that over and receive it
27 as compressed gas at Parkway; is that right?

28 MR. ISHERWOOD: Yeah, actually, I correct my first

1 statement as well. So you're right, the second question
2 is, the 400 is just a suction to a discharge switch, which
3 was your second question. And the first question was,
4 Enbridge is trying to serve some peaking load that would be
5 on the TCPL system, but serve that from Dawn instead of
6 other locations.

7 MR. BRETT: Right. Yeah. So with that preface, let
8 us -- let me -- let us assume that Enbridge -- that the
9 Enbridge 800,000, which they would -- well, first of all,
10 they would need that 800,000 if their segment A was
11 approved -- let me put it the other way around. If segment
12 A was not approved, Enbridge would not need the 800,000,
13 correct?

14 MR. ISHERWOOD: That's my understanding.

15 MR. BRETT: But even if segment A were approved, if it
16 were approved in a form that Union -- that Enbridge
17 connected to the suction side of Parkway West, and you've
18 already put money in your budget to create a new gateway
19 that I discussed with you yesterday at Parkway West with a
20 capacity equivalent to the current gateway at Parkway on
21 the suction side -- if Enbridge's proposal were approved on
22 that basis, that rather than seek 800,000 of compressed gas
23 -- after all, they're a distribution utility. They could
24 have a pipeline that met their distribution needs, as Mr.
25 Cass continually reminds us, but did not get into the
26 transmission business in addition, and if that were the
27 case, and then Union -- and the proposal was, Go ahead,
28 Enbridge, but connect up to the suction side at Parkway

1 West, would you just confirm for me that what you would
2 have left over the next few years to transport or to
3 compress through Parkway would be the Gaz Mét volumes that
4 we talked about yesterday, your own requirements for
5 70,500, or whatever the exact number is for your -- for
6 some northern and eastern customers, which as I understand
7 it are customers you now serve off the Mainline in some
8 fashion but you want to serve from Dawn; and those two
9 amounts come to about 300 and -- give or take, 325,000 gJs
10 a day, and that's it, at least that's all we've been told.
11 That's the only firm need there is that appears to have
12 surfaced to date; is that fair?

13 MR. ISHERWOOD: I think the error in the premise is,
14 we need the Enbridge pipeline to be dual service,
15 distribution and transmission, to get the volumes from
16 Parkway to Albion, and then TCPL's Kings North Project to
17 go up to Vaughan and connect --

18 MR. BRETT: Well, you do, you do -- let me put this to
19 you. You do, so long as that is the only alternative that
20 is seriously looked at. But if the alternative of having
21 TCPL build additional capacity from Parkway to Maple
22 directly, as I think Mr. Aiken discussed with you yesterday
23 at some point, then you would agree with me that that is
24 not the case? In other words, the transmission function of
25 getting from -- breaking the bottleneck, whatever, you
26 know, euphemism you wish to use, getting more gas from
27 Parkway to Maple or Parkway to Dawn, doesn't have to go to
28 Albion and then up. It can go straight from Parkway using

1 TransCanada's existing arrangements, which they could
2 expand, correct?

3 MR. ISHERWOOD: But TransCanada has obviously existing
4 pipe between Parkway and Maple, so if they didn't go on the
5 Kings North Project using the Albion synergy, they'd have
6 to be looping their existing pipe.

7 MR. BRETT: They'd have to do something.

8 MR. ISHERWOOD: Have to do something.

9 MR. BRETT: Yeah. No, I'm not -- that's what I'm
10 asking. But they could do something -- if they did -- they
11 could do something which could avoid the need to have
12 Enbridge spill into the transmission business.

13 MR. ISHERWOOD: There's definitely an option for them.
14 I think it's a less economic option, a less efficient
15 option, but --

16 MR. BRETT: Well, I guess we need -- I take your
17 point, and we'll ask Enbridge about the economics of that,
18 but I just -- the only reason I --

19 MR. ISHERWOOD: You need to ask TransCanada about the
20 economics, because it's really their pipe that's being
21 looped. But going back to your initial question about even
22 the Enbridge pipeline being distribution, even if it's
23 distribution only, it still needs compression. If there's
24 no transmission -- and we've testified to that earlier,
25 that if Kings North was not built so that Enbridge and GMI
26 cannot get through, the only volumes that are then affected
27 in our system are the Enbridge volumes, 800 a day going
28 through the compressor, do we still need the compressor?

1 The answer is yes.

2 MR. BRETT: The 800 a day in my scenario doesn't have
3 to go through the compressor, it comes into the suction
4 side of your station.

5 MR. ISHERWOOD: But it doesn't hydraulically work on
6 the Empress system.

7 MR. BRETT: Well, I think we'll have to ask --

8 MR. ISHERWOOD: Before that.

9 MR. BRETT: I'm going to -- that is your view.

10 MR. BRETT: I haven't seen any data or any analysis or
11 any evidence that suggests that's the case. Perhaps
12 Enbridge will have that, but I don't think you filed
13 evidence on the point.

14 MR. ISHERWOOD: I wouldn't. I'm just giving you my
15 understanding. So it's best to ask Enbridge.

16 MR. BRETT: All right. Okay. That's fine. Thank
17 you.

18 MS. CHAPLIN: One minute. Mr. Isherwood. I don't
19 know if the court reporter got your answer to the sort of
20 prior question. Was there anything you wanted to repeat?

21 MR. ISHERWOOD: I'm trying to think what the answer
22 was. But the basic premise is that Enbridge needs the
23 Parkway D compressor, even if the segment A is distribution
24 only.

25 MS. CHAPLIN: Thank you.

26 MR. BRETT: Okay. I had some arithmetic here I was
27 going to deal with, but it's not easy to deal with
28 arithmetic in these forums, but let me -- let me ask you to

1 turn up... just give me a moment, please.

2 I guess it's BOMA 54(d), (d) as in dog. 54(d). I
3 think this is what I want here. Yes.

4 And I really just want to refer to this -- I just
5 really want to refer to this question and ask you to
6 confirm these amounts in (d).

7 What I asked you was to sort of -- what I was trying
8 to get at was correlating the amount of incremental
9 horsepower you need to coincide with the additional amounts
10 of gas that you were expecting you would have to compress
11 at Parkway. So I asked you: What would the amount of
12 compression be to do these various amounts?

13 And the contract for Gaz Mét, 257,800, you gave me
14 8,300 horsepower; correct?

15 MS. GEORGE: That's correct.

16 MR. BRETT: And for -- I used as an example a tranche
17 of Enbridge, 400,000 gJs. You gave me 12,800. Right?

18 MS. GEORGE: Yes.

19 MR. BRETT: Horsepower? And then a very small amount
20 for Union. To compress Union, you gave me eight -- 260
21 horsepower, and then for the --

22 MS. GEORGE: No, that's not correct. That's for
23 Vermont gas.

24 MR. BRETT: Sorry about that. Apologies.

25 And then the last one, for your 70,000, it was 2,300.

26 MS. GEORGE: That's correct.

27 MR. BRETT: And that's a total, I think, of something
28 like 24,000 -- this is why I don't do this very often. In

1 any event, I don't have to total it. I just wanted that
2 out there, and you can make your own calculations as to how
3 much horsepower you have to go around, as it were, but I
4 wanted to flag those so everybody had a chance to look at
5 them, and particularly the Board had a chance to look at
6 them.

7 Now, I've got just a few minutes here. And on the
8 question of reliability, the -- and of the amount of
9 compression that's required, we did touch earlier on --
10 someone touched earlier on the Parkway obligation. And I
11 think everybody in the room knows what that is, but
12 basically, that is that Union's direct purchasers -- and
13 I'll ask this -- I'll ask you to confirm this, Mr.
14 Isherwood or Mr. Redford. You'll know this better than I,
15 that all of Enbridge's -- Enbridge's direct purchasers have
16 to, for the most part, deliver their gas to the suction --
17 not the suction side, they have to deliver it to the
18 compressor side of Parkway.

19 In other words, they have to provide capacity
20 downstream of Parkway as part of their bundled-T
21 arrangements; correct?

22 MR. ISHERWOOD: It's broader than just bundled-T.
23 It's actually all direct-purchase customers have some
24 obligation to deliver. Not all of it is at Parkway; some
25 of it at Dawn, some of it is at other points, but there is
26 a Parkway obligation that's shared by some T service and
27 some bundled-T Union south customers.

28 MR. BRETT: Okay. And that is now estimated -- you

1 estimate that at 0.62 petaJoules?

2 MR. ISHERWOOD: That also includes system supply has
3 an obligation as well.

4 MR. BRETT: Yes, it does, but less than that, right?

5 MR. ISHERWOOD: No, so 620 includes both the direct
6 service and system supply in both.

7 MR. BRETT: I'm sorry, the 620,000 gJs includes both
8 the direct purchase and system supply?

9 MR. ISHERWOOD: Obligation at Parkway.

10 MR. BRETT: Right. Now, that's a lot of gas. As
11 somebody mentioned yesterday or today, you're proposing in
12 your upcoming rates case to start to dismantle that
13 obligation. And as I understood -- if my memory serves,
14 the first tranche of that, which would be in 2014, would
15 effectively reduce that by about 6.7, 6.8 percent; is that
16 right?

17 MR. ISHERWOOD: The work underway right now is to come
18 before the Board in the 2014 rates case, for that to start
19 happening, actually, November 1 of '16.

20 MR. BRETT: Sorry?

21 MR. ISHERWOOD: November 1 of 2016 would be the time
22 where we start.

23 MR. BRETT: Okay. That's the starting point.

24 So my question really would be: Given the range of
25 alternatives that we've been discussing, why would you pick
26 this moment in time to change a system which gives you
27 620,000 gJs a day downstream of Parkway, at the same time
28 as you're talking about spending hundreds of millions or at

1 least tens of millions on two new compressors? Why would
2 you be introducing that initiative at this point in time?

3 MR. ISHERWOOD: We have had very strong customer
4 requests for that change.

5 MR. BRETT: You've had strong requests from one
6 customer?

7 MR. ISHERWOOD: From all the customers that have the
8 obligation.

9 MR. BRETT: Yeah. Well, you have -- well, all right.
10 You haven't had it from mine, but you've had it from one or
11 -- well, let's not get into a debate about that, but I
12 think let's put it this way.

13 MR. ISHERWOOD: It will be the --

14 MR. BRETT: You -- you've chosen to take the
15 initiative and ask the Board to begin to dismantle this
16 obligation?

17 MR. ISHERWOOD: We are responding to our customers'
18 strong -- and I mean strong -- preference to eliminate the
19 obligation.

20 MR. BRETT: I think you're --

21 MR. ISHERWOOD: It will be before this Board in
22 another case, so it will be filed probably in a month or so
23 from now, and be part of the 2014 case.

24 MR. BRETT: Would you agree with me that it may be
25 more accurate to say you're reacting to very strong
26 pressure from one particular subgroup of very large
27 customers?

28 MR. ISHERWOOD: I would say we're reacting to a lot of

1 customers. A lot of them are industrial customers, if
2 that's your point, but in collection, in terms of total
3 amount of capacity, it's the vast majority of that 600 a
4 day is requesting to eliminate that and move back to Dawn.

5 And quite honestly, it will be before this Board and
6 those customers will need to justify it as well.

7 MR. BRETT: Okay. Two other questions, short
8 questions.

9 You -- as I understand it, at the moment, Union
10 imports or contracts for, if you like, moves over the
11 Niagara-Parkway line or Niagara-Kirkwall TCPL line about
12 21,000 gigaJoules of gas; correct?

13 MR. ISHERWOOD: That's correct.

14 MR. BRETT: And as I understand it, you don't have any
15 inclination to increase that amount of gas that you move
16 over that line in the next couple of years? I think your
17 evidence is to that effect?

18 MR. ISHERWOOD: Correct.

19 MR. BRETT: I think your evidence is further that
20 these -- that your projects that we're now talking about,
21 the two big project, Parkway West and Brantford-to-
22 Kirkwall, are not in any way contingent upon Union
23 accessing greater amounts of Marcellus or Utica shale;
24 correct?

25 MR. ISHERWOOD: In terms of Union's 2015 volumes,
26 we're just trying to access back to Dawn, and then we'll
27 need to then determine which -- where we buy that gas,
28 whether it's at Dawn or whether it's some upstream point,

1 but we just want to get back to Dawn, where we have that
2 choice.

3 MR. BRETT: Okay. And then lastly, you mentioned
4 yesterday -- in response to one of my questions, you
5 mentioned a couple of places, I think, in the evidence that
6 you don't have a gas demand forecast for your franchise
7 beyond about a year out. Why is that?

8 Or perhaps let me put it this way. How can you plan
9 properly for new infrastructure and come before the Board
10 and ask for \$600 million or whatever, \$400 million in
11 capital expenditure, and then say that you don't have a
12 plan for demand -- for growth demand in your franchise that
13 would require that compression for more than 12 months in
14 advance, which is what I took you to be saying yesterday?

15 MR. ISHERWOOD: But I think our evidence does talk to
16 our forecast around M12 turnback, which is one of the
17 determining factors in terms of need for these facilities,
18 and our turnback assumptions are Dawn to Kirkwall would be
19 turned back 100 percent, and we do expect to have some
20 small parts of Dawn to Parkway, very little Dawn-to-Parkway
21 turnback.

22 MR. BRETT: Do you agree with me that -- I accept
23 that, but you agree with me that you do not forecast your
24 own organic, indigenous demand in the Union franchise area
25 on a sort of an ongoing basis beyond 12 months?

26 MR. ISHERWOOD: The demand changes within our
27 franchise would be very small relative to the scope and
28 size of these projects. We're talking about hundreds of

1 thousands of gJs' change here. And I don't think Union
2 east, the eastern part of our franchise, which is affected
3 by these facilities, would be growing anywhere near that
4 much.

5 MR. BRETT: Okay. Those are my questions. Thank you.

6 MS. CHAPLIN: Thank you.

7 We will rise for today and return on Thursday morning.
8 Thank you.

9 --- Whereupon the hearing adjourned at 1:03 p.m.

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28