



ONTARIO ENERGY BOARD

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

VOLUME: 6

DATE: September 26, 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 Thursday, September 26th, 2013,
commencing at 9:02 a.m.

VOLUME 6

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
KIM DULLET	(CME)
JULIE GIRVAN	Consumers Council of Canada (CCC)
STEVEN SHRYBMAN	Council of Canadians
ROGER HIGGIN	Energy Probe Research Foundation
KENT ELSON	Environmental Defence
DWAYNE QUINN	Federation of Rental-housing
	Providers of Ontario (FRPO)
MARK CRANE	Industrial Gas Users' Association
	(IGUA)
DAVID POCH	Green Energy Coalition (GEC)
JAMES GRUENBAUER	City of Kitchener
RANDY AIKEN	London Property Management
	Association (LPMA)

A P P E A R A N C E S

DAVID GERMAIN	Markham Gateway
MARK RUBENSTEIN	School Energy Coalition (SEC)
GORDON CAMERON	TransCanada Pipelines Ltd.
MICHAEL JANIGAN	Vulnerable Energy Consumers' Coalition (VECC)
ALSO PRESENT:	
MARION FRASER	BOMA
SHELLEY GRICE	Energy Probe
KAREN HOCKIN	Union Gas
MARK KITCHEN	

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

<u>Description</u>	<u>Page No.</u>
--- On commencing at 9:02 a.m.	1
ENBRIDGE GAS DISTRIBUTION - PANEL 1, resumed	1
M. Giridhar, C. Fernandes, J. Denomy,	
N. Thalassinos, C. Moore, Previously Sworn	
Cross-Examination by Mr. Elson	1
Cross-Examination by Mr. Brett	25
Cross-Examination by MR. Rubenstein	58
--- Recess taken at 11:06 a.m.	74
--- On resuming at 11:34 a.m.	74
Cross-Examination by Mr. Poch	76
Cross-Examination by Mr. Wolnik	103
Cross-Examination by Dr. Higgin	118
Cross-Examination by Mr. Quinn	129
Cross-Examination by Mr. Crane	138
Cross-Examination by Mr. Millar	145
Questions from the Board	147
Re-Examination by Mr. Cass	155
--- Whereupon the hearing adjourned at 2:10 p.m.	163

E X H I B I T S

<u>Description</u>	<u>Page No.</u>
EXHIBIT NO. K6.1: APPRO COMPENDIUM	103
EXHIBIT K6.2: ENERGY PROBE SUMMARY TABLE OF SEGMENT A.	120

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

<u>Description</u>	<u>Page No.</u>
UNDERTAKING NO. J6.1: EGD TO UPDATE EXHIBIT I. EGD. ED GTA PROJECT ASSUMED EARNINGS IMPACTS TABLE.	13
UNDERTAKING NO. J6.2: EGD TO PROVIDE EGD ANALYSIS.	25
UNDERTAKING NO. J6.3: EGD TO PROVIDE BOMA WITH EVIDENCE REFERENCES REGARDING PIPE SIZE AND CAPACITY.	43
UNDERTAKING NO. J6.4: EGD TO PROVIDE OPEN SEASON BID VOLUMES FOR BOTH 2015 AND 2016 SEPERATELY.	45
UNDERTAKING NO. J6.5: EGD TO PROVIDE MODEL SIMULATION RELATED TO THE PRESSURES AT STATION B IN RESPONSE TO GEC SCENARIOS.	83
UNDERTAKING NO. J6.6: EGD TO CONFIRM GEC'S CALCULATION OF TJ TO 10^3 M ³ /HR	87
UNDERTAKING NO. J6.7: EGD TO PROVIDE MODEL SIMULATION TO SHOW IF IT CAN REDUCE SMYS TO 30 PERCENT OR BELOW TODAY IF IT INTERRUPTED PEC AND/OR ITS 4 INDUSTRIAL CUSTOMERS; TO INCLUDE SCENARIOS SEGMENT A, EAST-WEST, PORTION OF SEGMENT B.	94
UNDERTAKING NO. J6.8: EGD TO UPDATE MAP OF 2015 OPERATING SYSTEM WITH NEW FACILITIES, WITH REFERENCE TO EXHIBIT I. AI. EGD. BOMA. 25, ATTACHMENT 2.	119
UNDERTAKING NO. J6.9: EGD TO MAKE CORRECTIONS AND COMMENTS ON ENERGY PROBE TABLE K6.2.	120
UNDERTAKING NO. J6.10: EGD TO PROVIDE SUMMARY SCHEDULE OF BREAKDOWN ON SEGMENT A OF PEAK REQUIREMENTS FOR DISTRIBUTION AND TRANSMISSION FROM 2015-16 TO 2019-20 BY YEAR.	123
UNDERTAKING NO. J6.11: EGD TO PROVIDE IMPACTS AND AMOUNTS OF LCU ON M12 RATES ON AN ANNUAL BASIS.	128

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

<u>Description</u>	<u>Page No.</u>
UNDERTAKING NO. J6.12: EGD TO PROVIDE RATE IMPACTS ON RATE 332 TRANSMISSION CUSTOMERS OF DIFFERENT SCENARIOS OUTLINED BY FRPD RELATED TO BRAMPTON WEST START POINT OF SEGMENT A.	134
UNDERTAKING NO. J6.13: EGD TO PROVIDE SYSTEM REGULATION ALTERNATIVES AND ASSOCIATED COSTS.	138
UNDERTAKING NO. J6.14: EGD TO PROVIDE COST AMOUNTS ASSOCIATED WITH INCREASING SEGMENT A PIPE SIZE FROM 36-INCH TO 42-INCH.	142

1 Thursday, September 26, 2013

2 --- On commencing at 9:02 a.m.

3 MS. CHAPLIN: Please be seated. Good morning,
4 everyone. I believe we're welcoming back Enbridge's
5 panel 1. And I have Mr. Elson as first on the list, with
6 30 minutes.

7 Are there any preliminary matters before we begin?
8 No? Okay.

9 Now I believe we are ready. Mr. Elson?

10 **ENBRIDGE GAS DISTRIBUTION - PANEL 1, RESUMED**

11 **Malini Giridhar, Previously Sworn**

12 **Craig Fernandes, Previously Sworn**

13 **Joel Denomy, Previously Sworn**

14 **Nick Thalassinis, Previously Sworn**

15 **Chris Moore, Previously Sworn**

16 **CROSS-EXAMINATION BY MR. ELSON:**

17 MR. ELSON: Thank you. And for the record, my name's
18 Kent Elson of course, and I represent Environmental
19 Defence. And I believe we are picking up from where we
20 left off last Thursday, September 19th. When we left off
21 we were discussing some of the project economics at a high
22 level, but before getting back to that I do have a bit of a
23 broader question.

24 Am I correct in saying EBO 188 require that the net
25 present value and the benefit-cost ratio for projects such
26 as this be estimated using a societal cost test that
27 evaluates the costs and/or the benefits accruing to society
28 as a whole to an activity?

1 MR. CASS: Mr. Elson, I'm not sure that we have an
2 EBO 188 expert on the panel. And it strikes me that that
3 is more a question perhaps for argument than for the
4 witnesses.

5 If anyone on the panel thinks that they can address
6 it, please correct me and go ahead.

7 MR. ELSON: I guess maybe I'll ask a broader question,
8 which is that: Is it your belief that this project should
9 be analyzed on the perspective of the cost and the benefits
10 accruing to society as a whole? Is that the approach with
11 which you address this?

12 MR. FERNANDES: So Enbridge did consider a number of
13 factors, and we've presented economic feasibility under the
14 EBO 188 guidelines. As Mr. Cass stated, if you have more
15 detailed questions for our -- I believe it's our third
16 panel, that would be better.

17 But we did evaluate the project using a number of
18 items, including considerations of energy efficiency.
19 Looking at the overall project, we considered the economies
20 of scale and the environmental benefits of building one
21 pipeline and sharing its usage for both distribution and
22 transmission. So we do believe that we have a broad-based
23 approach to looking at the overall project.

24 MS. GIRIDHAR: If I may just add, we've also
25 considered the fuel savings to customers from using gas
26 versus electricity as a secondary benefit, and it wasn't
27 actually included in the feasibility numbers, but that was
28 recognized in evidence as well. And they were very

1 substantial.

2 MR. ELSON: I guess my question is: Do you think that
3 the test for this project -- and do you evaluate from this
4 perspective that the test should be looking at the costs
5 and/or the benefits from -- or accruing to go society as a
6 whole? Is that how you approached this project?

7 MR. CASS: Madam Chair, pardon me. To the extent that
8 the question is about the approach, then, the witnesses can
9 certainly address that.

10 At a higher level, though, my concern about the
11 question is, again, it goes to something that is really
12 more a matter of argument than it is evidence. And it
13 seems to me to be mixing two different things.

14 In argument, Enbridge will of course be saying that
15 the Board should consider the public interest, which is one
16 thing. In argument, Enbridge will also be addressing the
17 feasibility calculations as done under EBO 188, but the
18 suggestion of the question seems to be that these broader
19 public interest considerations all get quantified or should
20 get quantified in the benefit-cost calculation or the PI
21 calculation, which I don't think is the case.

22 So my concern is it seems to be mixing the broad
23 public interest considerations with the feasibility
24 calculation, which I don't think is appropriate. Now,
25 again, the witnesses can talk about how they have
26 approached it, but that's my concern about the question.

27 MS. CHAPLIN: Well, Mr. Cass, I take your point that
28 whether or not some of these other concerns should be a

1 part of the evaluation might be a matter for argument, but
2 Mr. Elson asked if it was a part of Enbridge's analysis.
3 So that's a fact question as to what they took into
4 account, so I don't see how that is a matter for argument.

5 MR. CASS: Again, Madam Chair, my concern is just that
6 the fact question seemed to be confusing two things, the
7 public interest and the feasibility calculation. So I'm
8 happy for the witnesses to answer the fact question; it's
9 just it's confusing two different things.

10 MR. ELSON: This question wasn't supposed to be as
11 controversial as it has turned out to be.

12 My understanding is that this project should be
13 analyzed from the perspective of the benefits and costs
14 accruing to society as a whole. And as Mr. Cass says, I
15 can make that point in argument.

16 I wanted to lay that foundation for some of my further
17 questions that are coming up, but perhaps we can move on
18 for now.

19 MR. FERNANDES: Happy to clarify what is actually
20 described in the evidence. In Exhibit A, tab 3, schedule 9
21 we did have several paragraphs that describe what has been
22 included in the economic feasibility.

23 There's three primary benefit streams and -- that
24 accrue to the project. One is the revenue from the
25 distribution ratepayers from the incremental customer adds.
26 Another one would be the transportation service revenue for
27 the transportation service being provided on segment A.
28 And finally there are the transportation savings as -- the

1 gas supply benefits, so to speak.

2 Now, in Exhibit E, tab 1, schedule 1 -- I might not
3 have the perfect reference from memory, but in paragraph 16
4 I believe we said although we provided an economic
5 feasibility under the guidelines, that was not the primary
6 purpose of the project. It was really the reliability for
7 our current and future customers, was our primary purpose
8 for the project.

9 So I think, Mr. Elson, we would say that those broader
10 items are an important part of the decision and they are an
11 important reason why we brought the project forward.

12 MR. ELSON: Okay. Well, I will move on to what I was
13 asking about at the end of the day last Thursday. So I'll
14 pick up where we left off there.

15 Last Thursday we were discussing a scenario where
16 Enbridge's number of customers would increase as predicted,
17 but Enbridge's annual and peak demand would not grow. And
18 I was going through the inputs in the PI calculation to
19 determine what the PV of those inputs would be in the
20 scenario we were putting forward. And that was with
21 respect to Exhibit A-3-9, attachment 3, which actually, if
22 you could pull up, that would be appreciated.

23 Do you recall that discussion?

24 MR. FERNANDES: Yes, I do.

25 MR. ELSON: So we'd managed to go fairly far down this
26 chart, and we'd discussed, for example, how in this
27 scenario that we were putting forward none of the
28 distribution revenues would be included in the PI

1 calculation for the project. Do you recall that?

2 MR. FERNANDES: Yes, that was -- we stated that was
3 the scenario in column 6.

4 MR. ELSON: So just as a bit of a housecleaning
5 matter, I believe your counsel is going to provide an
6 updated response to Exhibit -- sorry, to the undertaking
7 response to J4.10. And that relates to the transportation
8 savings and providing a PV of that based on a different
9 price differential, is 92 cents and \$1.50, so unless we're
10 not on the same page as that I think we can move on from
11 the total transportation savings.

12 Is that correct, Mr. Cass?

13 MR. CASS: I wasn't proposing that I would personally
14 give the answer, but, yes, you are correct, the undertaking
15 will be responded to.

16 MR. ELSON: Okay. Thank you.

17 So the next two items in the charts would be the total
18 customer additions and the total volumes, which in a sense
19 aren't relevant, but in our scenario there would be total
20 customer additions, but those wouldn't have a bearing on
21 this project, because the project wouldn't be needed to
22 address those customer additions, so you can effectively
23 ignore them. Is that a fair way to describe it?

24 MR. FERNANDES: That would be fair. They would not be
25 included in the economic evaluation of the project, and
26 that's what is shown in column 6, where the capital
27 associated with attaching those customers and all of the
28 revenues associated with those customers have been removed.

1 And in the case that we just described, we were taking
2 out the revenue stream or the benefit of the incremental
3 customer adds, but we're also taking out the capital costs
4 to attach them to the system.

5 MR. ELSON: Yes. So under this scenario, roughly
6 speaking, the net present value could be calculated by
7 taking the present value of the capital costs which you
8 provided us and subtracting from that the present value of
9 the transportation savings and the present value of the
10 service charges; is that right?

11 MR. FERNANDES: There are a few other items, but those
12 are the major ones. The way the feasibility calculation
13 goes is all of the net operational cash flows compared to
14 the capital costs of the project.

15 MR. ELSON: So those are the major items that we've
16 gone over, and some of the minor items would be, for
17 example, taxes. So taxes would increase the cost a bit; is
18 that right?

19 MR. FERNANDES: Operating maintenance and other types
20 of costs that are shown in the table.

21 MR. ELSON: So OM and taxes would be the other two
22 items, and both of those would, I guess, bring your
23 profitability down; is that correct?

24 MR. FERNANDES: It would reduce the net operational
25 cash flows from that distribution revenue. There are a few
26 other items in there, but they're relatively small in their
27 order of magnitude relative to the other cash flows.

28 MR. ELSON: Okay. Thank you.

1 So I guess if you want to do a sort of back-of-the-
2 envelope calculation, you could do that with just the
3 present value of the capital costs, the present value of
4 the transportation savings, and the present value of the
5 service charges. Would that be fair?

6 MR. FERNANDES: That would be fair. However, I should
7 point out that the sensitivity analysis, the summary that
8 we're actually looking at here, was intentionally put
9 together in order for people to interpolate between what we
10 hope are the bookends of the various major cost drivers and
11 benefit drivers.

12 So for instance, I would like to point you to looking
13 down near the bottom of the table. We did provide our base
14 case that is shown in grey, and for all of the other
15 scenarios where we're changing one single variable we did
16 list an item that says "variance to current base case NPV",
17 and if you want to look at those numbers, the major cost
18 drivers are generally linear.

19 So you have the dollars to be able to do an addition,
20 and the example I could give is, if you go to column 7, for
21 instance, this sensitivity was a 10 per cent increase in
22 capital costs, and I should note that that is all capital
23 increased, including the cost of capital to attach the
24 incremental customers and those other reinforcements that
25 we're not asking for as part of this project.

26 But when we look down there, there is a \$600 million
27 NPV. So for example, if you look at column 4, which has
28 half the transportation savings, it has a differential or

1 variance of negative 427 million, and if you look at
2 column 5, which has zero transportation services charge, or
3 assuming there's nothing flowing downstream of Albion, it
4 has an incremental of 158 million.

5 You can take the 427, the 158, add them together, and
6 subtract them from the 600 million in the other case and
7 see that the net present value would still be greater than
8 zero under a scenario where we had a 10 per cent increase
9 in all of our capital costs, no transportation services
10 revenue, and half of the transportation savings.

11 So the structure of the table wasn't specifically
12 intended to be helpful for people to be able to
13 interpolate.

14 The one item that I would want to note is that,
15 specifically with the capital cost increase, it is the only
16 variable that is not really linear, because it feeds back
17 into the transportation services revenue. But it's a
18 fairly small component. But for the other ones, the
19 transportation savings and the transportation services
20 charge, they are directly linear, so they are additive.

21 MR. ELSON: That's very helpful, and actually, maybe
22 we could do an example of that. If you were to take
23 column 6, and you have the net present value of
24 \$449 million, if we were to take that example and then
25 assume from column 4 50 per cent transportation savings and
26 from column 5 zero per cent transportation service charges,
27 we would end up with a negative -- or, sorry, a
28 profitability index of less than one; is that right?

1 MR. FERNANDES: That would have a net present value
2 that is negative, according to the numbers on here, but I
3 should note that you've basically taken out all of the
4 benefits.

5 MR. ELSON: Not surprising that the --

6 MR. FERNANDES: So that would --

7 MR. ELSON: -- NPV is negative. Yes. And it doesn't
8 take out all the benefits, actually. It just reduces your
9 transportation savings by 50 per cent; is that right?

10 MR. FERNANDES: And to remind everyone that we stated
11 in Exhibit E, tab 1, schedule 1 that the primary purpose of
12 the project is not based on the economics, it's based on
13 the reliability of our supply chain.

14 MR. ELSON: Thank you. I'll be moving to another area
15 now.

16 There seem to be a number of factors that we've gone
17 over that could impact the overall profitability index of
18 this project. One example that we talked about more or
19 less Thursday was the price differential between Empress
20 and Dawn; is that right?

21 MR. DENOMY: That's correct.

22 MR. ELSON: And another would be the magnitude of the
23 TCPL tolls -- the, sorry, the TCPL toll increases that are
24 required to compensate for dollars that aren't being spent
25 on the TCPL Mainline?

26 MS. GIRIDHAR: So Mr. Elson, I just wanted to say
27 that, in terms of basis differentials, you should not that,
28 while it is true that the benefits are a function of basis

1 differentials, they're also a function of utilization of
2 pipe, and we have -- do you have the reference, Mr. Denomy?

3 MR. DENOMY: Yeah, I do. TCPL No. 2.

4 MS. GIRIDHAR: TCPL No. 2 provides a range of basis
5 differentials and a range of utilization ratios, and you
6 really need to consider both of them in conjunction
7 because, for simplification purposes, our benefits
8 calculation assumed full utilization associated with
9 approximately a 50-cent basis differential.

10 The reality is we're talking about displacing
11 discretionary volumes that are used for seasonal purposes.
12 At best that transport would be used throughout the winter.
13 More likely it will only be used partially through the
14 winter, so it's appropriate when we talk about the gas
15 supply benefits that we recognize not just basis
16 differentials, but also utilization of pipe.

17 MR. ELSON: So I guess that would be another factor
18 that could impact the PI; is that correct?

19 MS. GIRIDHAR: Correct. And any utilization under
20 100 percent will increase the PI.

21 MR. ELSON: Okay. And another was the magnitude of
22 the TCPL toll increases that could result as a consequence
23 of reducing the revenue that goes towards the TCPL Mainline
24 as result of this project; is that another factor?

25 MS. GIRIDHAR: That is a more complex factor. For
26 instance, that's -- the term sheet is about the terms and
27 conditions of providing market access to the rest of
28 Ontario and Quebec.

1 MR. ELSON: I can leave that to the joint panel, if
2 you prefer.

3 MS. GIRIDHAR: Well, I just wanted to make one point.
4 And we can take it up again with the joint panel.

5 But we should also note that the benefits of market
6 access are that we are able to displace discretionary
7 volumes in Ottawa as well, so there's 170,000 gigaJoules of
8 long-haul that we would otherwise require in order to meet
9 peak day in Ottawa. If we didn't do that, we'll be short
10 25 percent of peak day.

11 So while the term sheet does result in an increase in
12 short-haul tolls, it also allows us to displace a
13 significant amount of long-haul that we would otherwise use
14 on very few days of the year to meet Ottawa demand.

15 So I would suggest that if you are talking about the
16 term sheet, we do need to take a wider approach in terms of
17 what does market access mean for the rest of Enbridge's
18 franchise. And none of that is in these calculations at
19 this point.

20 MR. ELSON: If it ultimately turns out that the
21 project has a PI of less than one, would Enbridge still
22 seek to have all of the \$680 million cost of this project
23 included in rate base?

24 MS. GIRIDHAR: The answer is yes. As Mr. Fernandes
25 has mentioned several times, the primary purpose of this
26 project is to provide reliability, flexibility and
27 diversity for both our existing customers and our new
28 customers over the next 10 years.

1 MR. ELSON: In response to Environmental Defence
2 Interrogatory No. 2 -- sorry, 29. Actually, perhaps you
3 could turn that up. I'm not going to ask any specific
4 questions of it, but that's Exhibit I.A4.EGD.ED.29.

5 Enbridge calculated its net income from 2015 to 2025
6 resulting from this project. And according to the response
7 to that interrogatory, the net income is roughly
8 \$17 million in 2016, declining to about \$12.8 million in
9 2025; is that right?

10 MS. GIRIDHAR: That is what the numbers show.

11 MR. ELSON: I believe these numbers were based on the
12 previous version of this project, which had a smaller
13 segment A. And now the capital costs have been increased
14 to 686 million. Could you provide an update to this chart
15 based on the higher figures?

16 MS. GIRIDHAR: Yes.

17 MR. ELSON: Thank you.

18 MR. MILLAR: J6.1.

19 **UNDERTAKING NO. J6.1: EGD TO UPDATE EXHIBIT I.EGD.ED**
20 **GTA PROJECT ASSUMED EARNINGS IMPACTS TABLE.**

21 MR. ELSON: Again, I think I know the answer to this,
22 but if it turns out that a significant portion of this pipe
23 isn't ultimately used because demand does not grow as
24 predicted and the profitability index turns out to be less
25 than one, would you commit to a reduction in Enbridge's net
26 income from the project?

27 MS. GIRIDHAR: The answer is no. I'll let Mr.
28 Fernandes continue, but first of all, this project is in

1 the public interest. Our view -- and we obviously provide
2 that in argument -- is that this project is required to
3 meet the reliability, diversity and flexibility needs. The
4 project has been demonstrated to be positive under a number
5 of different scenarios that Mr. Fernandes has just walked
6 us through. He's also going to be able to talk about the
7 strategic manner in which this project has been routed in
8 order to ensure it connects to the largest gate station on
9 our system and the centre of our GTA distribution area.

10 And I'll just let him talk to that.

11 MR. ELSON: I think you've actually answered my
12 question, but if you have more to add, subject to the
13 Board's discretion we could hear it.

14 MS. CHAPLIN: That's fine, but we don't need to re-
15 hear testimony we have already heard.

16 MR. FERNANDES: So the other important point I think
17 you said about it being under-utilized, part of this is
18 very strategic in the long one.

19 We've said we're dealing with ageing infrastructure.
20 So we are providing the capability to lower the pressure in
21 those lines, which is a part of our long-term planning.

22 In addition, our segment A, the path chosen to both
23 distribution and transmission for short-haul is very
24 strategic. We intentionally wanted to bring load -- bring
25 in supply into the centre of the extra high-pressure grid.
26 That has a long-term benefit to the entire system. It
27 provides pressure and flow support, and we believe it's
28 going to pay dividends for many, many, many years to our

1 ratepayers.

2 The odds of that infrastructure being under-utilized
3 when it's connected into the single largest integrated
4 network in the entire country, the largest single demand
5 centre, are extremely low.

6 MR. ELSON: That brings me to my next and final few
7 questions, which relate to this SMYS pressure issue. I'm
8 going to ask just a few questions on this on a high level.
9 I believe Mr. Poch and perhaps some other intervenors are
10 going to can ask some more detailed questions.

11 Could you turn to tab 18 of our document reference
12 book, which is Exhibit A, 3-1, page 1? This is the summary
13 of the purposes in your application.

14 My question relates to the pressure issue and whether,
15 taken by itself, it's a sufficient justification for this
16 project. So I'm going to briefly go through our position
17 on these other purposes, just as background, and to
18 understand it in the context of all the purposes of the
19 project.

20 So under item A in the list, the first purpose is load
21 growth. Our position that we addressed to a certain extent
22 on Tuesday is that recent trends suggest that there isn't
23 going to be the peak hours demand growth that has been
24 predicted, and we will be putting forth some evidence on
25 DSM.

26 So you get to the next purpose of the project, which
27 is B, and B talks about operational risks and safety;
28 that's on the following page. That's page 58 of our

1 document reference book. That's the focus of my last set
2 of questions.

3 But quickly with respect to C, which is entry point
4 diversity, it seems to us that the Parkway West gate
5 station provides sufficient entry point diversity and
6 backup to Parkway without the need for segment A and B.

7 And with respect to D, which is the gas supply
8 benefits, there seem to be some highly speculative
9 assumptions or risks, including those set out in the TCPL
10 evidence.

11 I don't want to get into those issues. I'm not asking
12 you to agree with what I've just said. The point of that
13 background is that if we are right, it's potential that the
14 only benefit of this \$686 million project would be the
15 purported reliability benefits in part B of this summary
16 table. So my questions relate to whether this project is
17 worthwhile if those are the only benefits.

18 My first question is this: My understanding is that
19 Enbridge, the Enbridge system in the GTA area, currently
20 meets all minimum standards relating to operational risk,
21 safety and reliability; is that correct?

22 MR. THALASSINOS: It meets the minimum standards in
23 the CSA Z662 code that -- I just emphasize those are
24 minimum standards.

25 MR. ELSON: Even if this project doesn't proceed,
26 there are no minimum standards relating to operational
27 risk, safety and reliability that will not be met? I
28 believe that answer was provided in response to ED 14 -

1 ED 34; is that correct?

2 MR. THALASSINOS: That's correct.

3 MR. ELSON: However, of course part of the purpose of
4 this project is to reduce the pressure on some of
5 Enbridge's lines in the east of the city; is that right?
6 That's the SMYS pressure issue?

7 MR. THALASSINOS: That's correct.

8 MR. ELSON: Again, currently those lines are above
9 30 percent SMYS. Enbridge wants to bring them down below
10 that level. I believe on Tuesday Mr. Naczynski said that
11 Enbridge has 208 kilometres of pipe that is operating at
12 above 30 percent SMYS. Is that the right number?

13 MR. MOORE: Sorry, approximately we have somewhere
14 around that number that's -- that has the ability to
15 operate up to or above 30 percent SMYS. We don't always
16 operate them at that level, and directionally we'd like to
17 be lower.

18 MR. ELSON: So those would be the pipes that are
19 sometimes operated at above 30 percent SMYS. They're not
20 necessarily always operated at that level?

21 MR. MOORE: Correct.

22 MR. ELSON: And how many kilometres of pipe are being
23 addressed in this project with regard to the SMYS issue?
24 Just approximately.

25 MR. MOORE: Well, it's the 26-inch line that goes
26 across the city and what we call the Don Valley line, the
27 30-inch line that comes from Victoria Square down, which --

28 MR. FERNANDES: It's about 45 kilometres, give or take

1 a few.

2 MR. MOORE: These are in the, you know, very congested
3 parts of our franchise, and they are very critical, ageing
4 lines.

5 MR. ELSON: And that -- the kilometres that we're
6 talking about in this project, is that included or excluded
7 from the 208 kilometres we were talking about before?

8 MR. MOORE: Included.

9 MR. ELSON: Included. Have you calculated the
10 likelihood, the mathematical likelihood, of an accident
11 occurring on these lines as a result of this pressure
12 issue?

13 [Witness panel confers]

14 MR. MOORE: Sorry, I think you are asking about the
15 likelihood?

16 MR. ELSON: "Probability" would be another word that I
17 could use.

18 MR. MOORE: Well, we -- the consequences are very
19 high. The probability -- the likelihood of an event we
20 hope to be low, but the consequences are very high.

21 MR. ELSON: And I take it by that answer that you
22 haven't actually calculated a number, such as the
23 probability or the likelihood. Mr. Moore, I believe you
24 would know the answer to this question.

25 MR. MOORE: I haven't. You know, I'm not sure it's
26 necessary for us to do that, to be honest.

27 MR. ELSON: And have you --

28 MR. MOORE: The consequences are so great.

1 MR. ELSON: Has Enbridge calculated the probability or
2 the likelihood of, not an accident, but simply service
3 losses arising from this pressure issue?

4 MR. FERNANDES: One of the important points that we
5 have on the record is that there has been a general
6 societal decrease in the tolerance for risk that has been
7 embodied by the actual code, as per FS-196-12, which places
8 a responsibility on operators to take a look at these types
9 of infrastructure that are operating in a higher-stress
10 condition in highly populated areas, and it is incumbent on
11 the operator to look at those risks and understand whether
12 they need to take steps to avert those risks. And that's
13 one of the things that the company is prudently planning
14 its network.

15 We know the lines that we're speaking of are in highly
16 populated areas, some of the most populated areas in the
17 entire country, and they are also well over four decades
18 old, so they have served our ratepayers well. We're not
19 talking about taking them out of service. We're taking
20 them to a lower level of service, and that's prudent
21 planning on our part.

22 MR. ELSON: Perhaps I'll ask my question again. Has
23 Enbridge calculated the likelihood or the probability of
24 service losses arising from this pressure issue? I believe
25 Mr. Moore and Mr. Thalassinos would have been the people
26 who would have been in charge of this, and I imagine you
27 know the answer off the top of your head.

28 MR. MOORE: If I understand your question correctly,

1 we would lose significant customers in the winter if we had
2 to currently drop the Don Valley, for example, and the 26-
3 inch line below 30 percent SMYS.

4 And we -- this isn't a theoretical thing, it's
5 something that has happened this summer. You know, we did
6 have to reduce pressure on both of those lines. We
7 directionally want to be operating lower, but we were -- we
8 had to because of the unexpected flood at the -- in the
9 Bayview area on the Don Valley line and other integrity
10 matters we've been working through.

11 MR. ELSON: Now, when you dropped the pressure this
12 summer that wasn't a problem. There was no service losses,
13 because you weren't at a peak demand period; is that right?

14 MR. MOORE: That's right. But in the winter, fall-
15 winter, we would lose --

16 MR. ELSON: So it depends whether it happens at a peak
17 time or not. That's the issue.

18 MR. MOORE: If it's cold.

19 MR. ELSON: So I'm going to go back, actually, to my
20 question, which is whether you have calculated the
21 likelihood or the probability of service losses arising
22 from the pressure issue. I believe you just discussed some
23 of the consequences, and I'm asking whether you've
24 calculated the likelihood or the probability of service
25 losses arising from this pressure issue.

26 [Witness panel confers]

27 MR. THALASSINOS: So I'm not 100 percent clear about
28 what you mean by "service losses", but we have done some

1 analysis to look at what it would be, the overall corridor
2 risk, if we were to lower our operating stresses to below
3 30 percent of SMYS, if that is what your question is.

4 MR. ELSON: No, that's not my question. I'm asking
5 whether you have calculated the probability, the chance of
6 something occurring, and that something occurring is some
7 event that would result in service losses on this line
8 because of this pressure issue.

9 And have you -- I think the answer is no, and I don't
10 know why it's a difficult question to answer. But the
11 probability of service losses arising from the pressure
12 issue.

13 MR. THALASSINOS: So we've not probabilistically
14 determined, based on any event, how many customers you
15 would lose. We have in evidence specific examples of
16 events that would lead to customer losses, but that's not
17 done on a probabilistic load profile.

18 MR. ELSON: With respect to electricity, there are
19 certain service-interruption criteria that can serve as the
20 basis for deciding on capital upgrades. For example, a
21 load loss of 250 megawatts must be restored within half an
22 hour.

23 My understanding is that there isn't such similar risk
24 criteria for natural gas; is that right? What I'm talking
25 about again is service-interruption criteria.

26 MR. THALASSINOS: So we have emergency response
27 criteria which is within -- to respond with emergency
28 within one hour of notification.

1 MR. ELSON: But you don't have service-interruption
2 criteria that would say what is an allowable service
3 interruption and what isn't that is equivalent to the
4 electricity sector.

5 MR. FERNANDES: So the natural gas industry doesn't
6 have quite the same standards as the electrical system
7 would. However, we should note that operationally the
8 restoration is fundamentally different, and that is on the
9 record.

10 For an electric system we stated in the evidence
11 automatic restoration, but it's actually remote
12 restoration, whereas for the natural gas system, once we
13 have customer outages, it requires two site visits, one to
14 shut off the meter at the customer's premise and ensure
15 that it's safe, and then a second visit. Once we restored
16 normal operating pressures within our system, it requires
17 us to visit each and every premise in order to safely
18 relate their equipment.

19 So the consequences of an outage are substantially
20 different from the electrical system, and we have noted
21 that there were a number of events that have occurred in
22 the natural gas industry that took prolonged outages.

23 If you get to the point of somewhere on the order of
24 25,000 customer outages, it becomes a very significant
25 issue for the community and for the company. And those
26 types of event have happened in the industry and they have
27 taken on the order of weeks to restore service.

28 MR. ELSON: I think the gist of that answer is that

1 you don't have service interruption criteria. So in the
2 interest of time, I'm going to move on. And I understand
3 that there are differences between electricity and gas in
4 that respect.

5 Have you done a comprehensive risk analysis comparing
6 the risks associated with this 30 percent SMYS issue and
7 other risks in the Enbridge system, including a comparison
8 of the likelihood of service losses, the likelihood of
9 accidents, the consequences of those events and the costs
10 of addressing the various risks?

11 I'm talking about a risk analysis that has numbers and
12 probabilities set out, such as those I just mentioned.

13 MR. THALASSINOS: Yes. So we do have an integrity
14 management program that assesses the risks of all of our
15 pipelines, including the lines operating over 30 percent of
16 SMYS, which includes many risk factors.

17 Some of those risks factors are qualitative, that they
18 are not done quantitatively, and I don't know that we would
19 have all of those risk factors or things that you mentioned
20 mathematically. Some of those are more qualitative.

21 MR. ELSON: So there's some qualitative analysis but
22 no quantitative analysis; is that right? In your integrity
23 management program?

24 MR. THALASSINOS: We have a combination of
25 quantitative and qualitative analysis.

26 MR. ELSON: But you wouldn't have comparisons such as
27 I discussed of the likelihood of service losses, the
28 likelihood of accidents, the severity of the consequences

1 and the costs of addressing those various risks? It
2 wouldn't reach that level of detail; is that right?

3 MR. THALASSINOS: Not all that level of detail.
4 Correct.

5 MR. ELSON: What does this document look like? Could
6 you provide it by way of an undertaking?

7 MR. THALASSINOS: Yes, I think we could.

8 MR. ELSON: Thank you.

9 MS. GIRIDHAR: Mr. Elson, You did make a statement in
10 passing, and forgive me for bringing it up here, but we
11 weren't given the opportunity to address it. And the
12 statement that you made in passing was that it was your
13 view that the gas supplies -- our purported gas supply
14 savings may or may not occur based on evidence that
15 TransCanada has provided.

16 We believe very firmly that those gas supply savings
17 are real, and we would like to have the opportunity to
18 explain why we would not agree with that piece of evidence
19 from TransCanada.

20 MR. ELSON: And that is something that I think all the
21 parties are going to address at the joint panel. I don't
22 intend to address it today, subject to the Board's
23 discretion, of course.

24 MS. CHAPLIN: That's fine. Let's leave it for the
25 joint panel.

26 MR. MILLAR: There was an undertaking given.

27 MS. CHAPLIN: Yeah.

28 MR. MILLAR: J6.2.

1 **UNDERTAKING NO. J6.2: EGD TO PROVIDE EGD ANALYSIS.**

2 MR. FERNANDES: There was one other item that you --
3 in your long preamble to your question, you mentioned that
4 Parkway West gate station would be the only thing that is
5 required in terms of meeting our diversity of supply into
6 our system.

7 I think that that we can't agree with either. I think
8 if we --

9 MS. CHAPLIN: Mr. Fernandes, I believe there were
10 probably a number of things that he made, but he put them
11 all with a caveat. He understood that you did not agree
12 with them, but it was to then focus on the reliability
13 issue. So we do not need -- we understand you do not agree
14 with that, and we do not need to hear additional testimony
15 on that.

16 MR. ELSON: And I actually have no further questions.

17 MS. CHAPLIN: Thank you. Mr. Brett?

18 MR. ELSON: Was an undertaking number provided there?
19 Okay. Thank you. Sorry.

20 MS. CHAPLIN: Mr. Brett, I have you next on the list.

21 MR. BRETT: That's right, Madam Chair.

22 MS. CHAPLIN: Your original allocation was 50 minutes.

23 MR. BRETT: That's right. I'm okay with that.

24 MS. CHAPLIN: Thank you. Please proceed.

25 **CROSS-EXAMINATION BY MR. BRETT:**

26 MR. BRETT: I would like to start by just -- your
27 evidence, I believe, is that on a design day basis, the
28 distribution part of your pipeline, the 800,000 gJs a day

1 will be fully utilized; correct?

2 MR. FERNANDES: That is correct.

3 MR. BRETT: And that 800,000, just to be clear, that
4 represents -- 600,000 of that 800,000, as I understand it,
5 represents essentially a replacement of -- allows you to
6 replace gas that you currently -- that you currently or
7 until very recently have been bringing to your system, to
8 your franchise area, via discretionary services on
9 TransCanada, with 600,000 gJs a day -- and I'll use
10 thousands of gJs a day to just keep the discussion on a
11 similar set of units. It gets confusing otherwise.

12 In any event, the 600,000 is a replacement for gas
13 that you're getting with discretionary service on
14 TransCanada, and you want to replace that with other,
15 better supply, in your view; correct?

16 MS. GIRIDHAR: Correct. So of that 600,000
17 gigaJoules, we had identified up to 200,000 for our direct
18 purchase market, which also uses those discretionary
19 services. And for --

20 MR. BRETT: All right. So you have allocated 200,000
21 of that 600,00 to your direct-purchase customers; is that
22 correct?

23 MS. GIRIDHAR: Correct. And 400 of it addressed the
24 use of discretionary supplies within our own portfolio.

25 MR. BRETT: That's helpful. And when do you -- the
26 direct-purchase customers -- all right. That's fine. I
27 understand that.

28 Now, the -- just as an aside, have you converted any

1 of that -- are you still using that 400,000 of
2 discretionary service to -- in your system portfolio? Or
3 replaced some of that on a -- if I can put it this way --
4 on an interim basis with TransCanada's FT non-renewable?

5 MS. GIRIDHAR: So we have provided two letters to the
6 Board already.

7 MR. BRETT: Right?

8 MS. GIRIDHAR: And we have indicated that some of the
9 STFT that we were contracting for under the system
10 reliability proceeding of approximately 40,000 gigaJoules,
11 or five months' STFT, has already been replaced with FT for
12 the coming winter.

13 MR. BRETT: That is FT that can you have up until
14 November 1st of 2015, with an option to renew it for a
15 further year; is that right, roughly?

16 MS. GIRIDHAR: Yes. My understanding is that is
17 correct. And we --

18 MR. BRETT: The option for the further year is given
19 to you in the settlement term sheet; correct?

20 MS. GIRIDHAR: Currently, that option is part of the
21 one-year renewable capability that comes with the FT
22 contracts. So the context in the term sheet is really for
23 what's called FTNR or firm transportation non-renewable
24 service, some of which we have also contracted --

25 MR. BRETT: Sorry, that's what I thought I said, but
26 -- that's the service that TransCanada has made available?

27 MS. GIRIDHAR: If I might just add, in a subsequent
28 letter we've identified additional amounts of FT that will

1 be required for the upcoming winter in order to displace
2 discretionary supply, which currently is being priced at
3 anywhere between 280 percent to 1,200 percent of FT.

4 MR. BRETT: No, I understand that, but -- and that is
5 -- so that's replacing existing discretionary supply, and
6 that in turn will be displaced by these gigaJoules that
7 will flow through your segment A, right?

8 MS. GIRIDHAR: That is correct.

9 MR. BRETT: Now, the -- what you're going to do is --
10 the 800,000, 400,000 of the 800,000, if I'm correct, has
11 been shifted. It's gas that you now receive at Parkway
12 Enbridge, without compression. It has been shifted from
13 there to segment A; correct?

14 MS. GIRIDHAR: Going forward, that is the plan --

15 MR. BRETT: That's -- assuming the project goes ahead,
16 you are going to remove 400,000 of gas from the -- that you
17 are now taking at the Parkway West -- sorry, the Parkway
18 Enbridge gate station, the existing gate station, and
19 you're going to move that to segment A?

20 MS. GIRIDHAR: I think I should clarify. There's two
21 components in that number. So because of our plan to take
22 200,000 gigaJoules off of TransCanada's domestic line,
23 which operates at lower pressures, that will continue --
24 that will come in and feed our existing 36-inch line, but
25 as a result we have to displace an equivalent amount that
26 is currently coming up Union's M12 on to the discharge
27 side, and then there is another 200 that is --

28 MR. BRETT: Yeah, that's -- all right. I was going to

1 come to the material in the Hamilton line, but let me -- I
2 think the best way to sort of summarize this discussion is
3 -- I don't know whether you need to turn it up, but we
4 asked you an IR about this very topic, and I would like to
5 just read part of this answer and have you confirm that
6 this is still the case, because this summarizes, I think,
7 very nicely what's happening and will lead me to my next
8 question. And the IR is 1.A1 -- A3.EGD.BOMA.18.

9 Now, we had asked you a question that basically asked
10 you what I just said, what the new -- what the 800,000 gJs
11 a day consists of, and the way you put it was this:

12 "800,000 gJs a day is the capacity available to
13 Enbridge under the shared arrangement with
14 TransCanada."

15 Now, this answer was dated June something or other, so
16 it's a little bit dated, but not, I think, in any relevant
17 way for our purposes.

18 "Enbridge expects that 600 tJs per day of
19 capacity will be required to flow natural gas
20 under firm short-haul contracts from Dawn and
21 Marcellus, displacing STFT and peaking
22 arrangements."

23 That's what we just discussed.

24 "Enbridge will contract for annual incremental
25 amounts of short-haul capacity and supply over
26 the period 2016 to 2025 to accommodate organic
27 growth, amounting to the residual capacity of 200
28 tJs a day -- or 200,000 tJs a day."

1 Now, we discussed this in a somewhat different way,
2 but my question to you is to confirm that this 800,000 that
3 we've been speaking of, or the 600,000 that you are using
4 to replace existing service, does not deal with growth;
5 correct? These are not growth molecules?

6 MR. FERNANDES: That's correct. If it would be
7 beneficial, I could go up to --

8 MR. BRETT: No, I don't think you need to do that.
9 I'm well-aware of your plan and how the volumes work, but I
10 just wanted to make sure that we all understood in the room
11 that the growth -- the growth molecules you are going to
12 contract for a bit at a time over the next ten years;
13 right?

14 MR. FERNANDES: That is correct.

15 MR. BRETT: And you are going to take those growth
16 molecules at Parkway suction; correct?

17 MR. FERNANDES: So the way the project is actually
18 contemplated, our 800 that is flowing on our segment A
19 releases some capacity in other parts of our system that --

20 MR. BRETT: It releases -- if I can just interrupt
21 just to focus here, it will release 200,000 immediately on
22 your NPS 36 line and your Parkway suction gateway; correct?
23 That's where the vacancy appears.

24 MR. FERNANDES: So the plan as presented in the
25 evidence is a 2015 gas supply contracting plan, but the
26 distribution side has the capacity to accommodate the
27 growth, but none of it is in the supply plan. That's a
28 held constant at a 2015 volume.

1 So you are correct --

2 MR. BRETT: Yes, I think --

3 MR. FERNANDES: -- we have the capacity and the
4 distribution system, but we're not showing any of the
5 incremental contracting that occurs over that time frame in
6 any of the supply numbers.

7 MR. BRETT: So I think you are telling me what we just
8 said, that we're not -- we don't -- you don't include in
9 this plan -- in this segment A plan that you put forward
10 you do not include growth volumes. They come somewhere
11 else.

12 MS. GIRIDHAR: That is correct. They will occur as we
13 update our gas supply plan each year.

14 MR. BRETT: Yeah, and they will occur as you need them
15 over a ten-year period.

16 MS. GIRIDHAR: That is correct.

17 MR. BRETT: So effectively what you've got is you've
18 opened up 200 -- by this arrangement, by this shift, and
19 leaving aside the 200,000 gJs a day that you are going to
20 bring in from Marcellus effective November 1, 2015,
21 assuming that the project, the overall project, goes ahead,
22 and you'll bring that 200,000 per gJs (sic) in through the
23 Hamilton line, the TransCanada's Hamilton line. We have no
24 problem or no ambiguity about that.

25 There is a remaining 200,000 capacity at Enbridge
26 suction. And there's -- and as I understand it, and I
27 would like you to confirm this -- there's 200,000 of empty
28 pipe in NPS 36 as a result of this shift. You are leaving

1 empty pipe by making this shift -- that's what I'm trying
2 to say -- right now? Can you answer that question
3 specifically?

4 MR. FERNANDES: I can. It's a consequence of how we
5 are utilizing our existing infrastructure, so I wouldn't
6 describe it as being empty pipe. What I see --

7 MR. BRETT: What would you describe it as?

8 MR. FERNANDES: -- happening is, if we look at the
9 board, and where segment A is coming in at Albion, one of
10 the things that we're doing on our existing Parkway north
11 line is, under peak conditions and normal operating, the
12 valve at Albion will have to be shut so that when we put
13 volume into the pipe at Albion we ensure it flows east.

14 So effectively from the existing line we've cut off
15 Albion to Keele, and we're forcing the volumes coming in at
16 Albion to ride on the existing pipe to get across to the
17 eastern portion of the system.

18 So what we're really talking about is, we've taken
19 away some of the capability from the suction side at
20 Parkway existing gate station in order to ensure that
21 Albion can use it.

22 MR. BRETT: Well, it's --

23 MR. FERNANDES: There is capability with the system as
24 we grow to be able to accommodate those volumes, so we
25 don't expect that we're going to require over the next ten
26 years an additional extra high-pressure reinforcement, so
27 we do have the capability within the system to accommodate
28 those volumes --

1 MR. BRETT: That is not in the evidence. That piece
2 of information has not been put in the evidence until just
3 now, right? I don't recall seeing those remarks in the
4 evidence. Not that I'm objecting to it; I just don't
5 recall seeing them.

6 I do recall your evidence -- perhaps you can confirm
7 this. You were going to make modifications at Albion to
8 allow you to maintain a constant pressure of, I believe,
9 485 PSI all the way from Parkway across to the Don Valley
10 line; is that correct?

11 MR. FERNANDES: That is correct.

12 MR. BRETT: And the impact of that I took to be that
13 you would -- that's a change that would improve the
14 performance of your overall system; correct?

15 MR. FERNANDES: Correct. We're taking the existing
16 infrastructure and providing an additional source, and that
17 allows us to utilize it more effectively.

18 MR. BRETT: And how does that differ from what you
19 just told me a moment ago?

20 MR. FERNANDES: They are entirely consistent. The
21 issue is the gas flows by pressure, so in order to meet our
22 peak operating conditions we would have a certain set of
23 conditions on that system, and all I was really describing
24 was that in those conditions the piece of pipe between
25 Albion and Keele will be fed from Albion, not from Parkway,
26 and --

27 MR. BRETT: Well, I guess, yes, but I'm talking about
28 the piece -- let me put it another way. My conclusion from

1 sort of a careful analysis of this -- and it was -- it's
2 not uncomplicated -- is that you're leading a piece of pipe
3 empty, and ratepayers will -- and I'm speaking at a -- and
4 ratepayers will pay for that pipe, and you will gradually
5 fill up the system over ten years, but effectively what
6 you've built is advance capacity for ten years of growth
7 here. That's the essence of -- that's one of the
8 consequences of this proposal; is that not correct?

9 MS. GIRIDHAR: I think I would quibble with the use of
10 the word "advance capacity for ten years" --

11 MR. BRETT: You'd quibble?

12 MS. GIRIDHAR: Well, because I think one of the
13 fundamental tenets of distribution reinforcement is you do
14 look ahead ten years. You always look to meet growth on a
15 forward-looking basis. Very distinctly different from
16 several transmission systems that already exist in place
17 and possibly only look to the next set of contracts, in
18 terms of how they add capacity, so --

19 MR. BRETT: So you are saying I really -- I've termed
20 it wrong. You are saying really you're doing -- this is --
21 but you are not really saying that you're not building
22 capacity which you'll use over the next ten years.

23 MS. GIRIDHAR: We are building capacity that we will
24 use over the next ten years, and it is appropriate to take
25 that into account with the system reinforcement that we are
26 contemplating at this point.

27 MR. BRETT: All right. Let's move on then. The --
28 okay. I'll move to a slightly different subject. The -- I

1 don't think you need to turn this up. I'll just read it.
2 It's a very short IR. To save us time, I'll just read
3 quickly the question.

4 This is BOMA 18(c), which is I, A1.A3.EGD.BOMA,
5 question 18, subsection (c). And the question in part was:
6 Is the addition of segment A, when the Enbridge plan was to
7 build -- this was when you -- the Enbridge plan was to
8 build the line from Bram West to Albion. And you've
9 changed that now; you are building it from Parkway to
10 Albion, but I don't think it changes anything about this
11 point.

12 "...conditional on either one or two new
13 compressors being established by Union Gas at
14 Parkway West."

15 And the answer you gave is:

16 "Yes. The addition of the capacity is
17 conditional on at least one additional unit being
18 installed at Union's Parkway West facilities.
19 This is because Enbridge's incremental contract
20 volumes of 800,000 tJs a day will flow on TCPL's
21 Parkway-to-Maple system from Parkway to Bram
22 West."

23 I take it this is still the case? You wouldn't --
24 that's still your answer?

25 MR. FERNANDES: Yes. Our understanding is it requires
26 incremental compression.

27 MR. BRETT: Right. So you're saying, just to be
28 precise here, you're saying it would require some

1 incremental compression over and above what there is there
2 now?

3 MR. FERNANDES: Yeah. Our understanding is that Union
4 has stated Parkway compression is maxed out. It could not
5 meet that volume.

6 MR. BRETT: Right. Okay. That's fine. I agree --

7 MR. FERNANDES: And that's separate and distinct from
8 their loss of critical unit.

9 MR. BRETT: No, I understand that. You don't need to
10 speak about LCU. I think the question was very precise
11 about compression used for growth.

12 So we're talking about -- in Union's parlance --
13 Parkway D?

14 MR. FERNANDES: Correct.

15 MR. BRETT: Correct? Now, then the question I have
16 next is a little -- is really this: Do you have the
17 option, assuming you go ahead with your segment A, as
18 you've described it, and the distribution portion of that
19 is 800,000 and the transmission portion is 1,200,000 gJs --
20 that's, I think, all well understood, or at least I think I
21 understand it. And you're looking at a 42-inch pipe for
22 that purpose.

23 Do you have the ability, the flexibility to connect
24 that 42-inch pipe to the -- let me add one other factor.
25 Part of the Parkway West project, as I think everyone
26 knows, is to create a new gate station on the suction side
27 of Parkway West, nothing to do with Parkway West
28 compression, to give Union an additional gateway to back up

1 its -- sorry, to give Enbridge a second gateway at Parkway
2 to back up its existing Parkway Enbridge capacity.

3 Leaving that aside for a moment, do you have the
4 option or could you connect the 42-inch line to the suction
5 side of Parkway?

6 And I would like to hear -- well, go ahead.

7 MR. FERNANDES: So the capability or design of the
8 pipeline, it can certainly do that. Our currently proposed
9 facilities set on our side of the meter at Parkway West
10 does not have that contemplated.

11 MR. BRETT: But you could, I gather -- and I would
12 like to either -- I'd like to hear you, but I'd also like
13 to hear from the technical people if they have a -- Mr.
14 Thalassinos and Mr. Moore if they have comments.

15 But you could modify that, I gather, at a cost which
16 is not a huge cost; is that correct?

17 MR. FERNANDES: I think I can answer that one and
18 state absolutely it's -- in terms of those two pipelines
19 they're in close proximity, but the other side of that is
20 on the other side of the meter my understanding is the
21 layout does have a crossover valving. So Union already
22 would have the capability to flow it through to us under
23 those conditions.

24 MR. BRETT: I'm understanding you to say that -- and I
25 don't know whether really I've understood what you said.
26 But you could -- are you telling me that you could make
27 that connection to the suction side by the expenditure of a
28 certain amount of money on the valving metering system,

1 which is not a huge sum of money in the overall -- relative
2 terms?

3 MR. FERNANDES: Relative to the cost of the overall
4 project, relatively --

5 MR. BRETT: Relative to the cost of the project?

6 MR. FERNANDES: -- minimal.

7 MR. BRETT: And this is one of the things you mean
8 when you say flexibility, that this, the segment -- that
9 your scheme gives you or your plan gives you a certain
10 flexibility. If you could do that, you wouldn't -- in that
11 instance, you wouldn't need additional compression at
12 Parkway West; correct?

13 MR. FERNANDES: That is incorrect.

14 MR. BRETT: Is correct?

15 MR. FERNANDES: Is not correct.

16 MR. BRETT: Why is that? I just asked you about --

17 MR. FERNANDES: It would physically be capable of
18 being connected, but it certainly would not have the
19 capability under those conditions to flow anywhere near the
20 volumes that's we're talking about.

21 MR. BRETT: Maybe I could ask the technical people.
22 What volumes could it flow in that case, Mr. Thalassinos?
23 Or Mr. Moore?

24 I would like to get some answers, really, from you
25 folks, if possible, before you converse...

26 MR. THALASSINOS: I think that question is more
27 appropriate for panel 2 and Erik Naczynski.

28 MR. BRETT: Panel 2?

1 MS. CHAPLIN: You're first up to be able to ask
2 questions for panel 2 when they return. We didn't complete
3 them.

4 MR. BRETT: No, I understand. Okay. I just was
5 surprised with the answer, that's all, because I thought
6 that the senior technical people were on this panel, but I
7 guess they've split. All right. I'll pursue that with
8 panel 2.

9 Now, if you were to -- I want to explore a second
10 option briefly with you. If, instead of building the --
11 pursuing the 42-inch line, you were to build simply the
12 distribution portion of your line, the 800,000 gJs a day,
13 and you were to build that line -- let's assume as a first
14 assumption -- from Parkway to Albion, presumably in that
15 case, your answer would be the same as to the fact that you
16 could connect it to the discharge side, but would the --
17 would you be able to, given the pressures, the system
18 pressures at Union -- not the discharge side, I'm sorry,
19 the suction side. So you'll be dealing, then, with the
20 Union system pressure; correct?

21 MR. FERNANDES: I think I can answer that.

22 MR. BRETT: If you could just answer, would you --

23 MR. FERNANDES: We would be able to connect to the
24 suction side. That is correct.

25 MR. BRETT: The pressure you would have there is the
26 Union system pressure; correct?

27 MR. FERNANDES: We would typically -- the design would
28 be to their minimum contract pressure, which is 500 --

1 MR. BRETT: Right.

2 MR. FERNANDES: -- pounds.

3 MR. BRETT: Right. Which is 500 PSI, five?

4 MR. FERNANDES: I think I can answer that at 500
5 pounds with a 42-inch --

6 MR. BRETT: No, I'm sorry, we're not talking
7 necessarily a 42-inch now; we're talking about a line that
8 would be sufficient to move just the 800,000, just the
9 distribution line, not a transmission line.

10 MR. FERNANDES: That's what I was going to answer.
11 With a 42-inch line and 500 pounds on the inlet, we could
12 not even get 800 with that.

13 MR. BRETT: All right. Now, supposing you didn't have
14 a 42-inch line but you had a line that was sized simply to
15 deal with the 800,000 gJs. In that circumstance you would
16 still have your 500 pounds per square inch inlet pressure.
17 And would you -- would it be -- and I'm really looking for
18 a technical answer here. Would it be doable to move that
19 amount of gas across to Albion -- Albion, you have, as I
20 understand it, an outlet pressure of 485 per square inch;
21 correct?

22 MR. FERNANDES: That's correct. It won't --

23 MR. BRETT: And you posited an inlet pressure of, I
24 believe, 550, but that's on the basis, as I understand it,
25 that you would be buying gas from TransCanada at their
26 system pressure; correct?

27 MR. FERNANDES: Based on the minimum contract
28 pressure. The --

1 MR. BRETT: Correct. So I'm giving you another --
2 another alternative. If you had a line sized to
3 accommodate 800,000 gJs per day, a distribution line, is
4 that problematic? Or can you move the gas across? And if
5 you did, what would be your -- what would be the inlet
6 pressure at Albion?

7 MR. FERNANDES: So we did look at that. It would
8 require a larger pipe size than a 42-inch in order to get
9 the full 800 teraJoules per day, or 800,000 gJs.

10 MR. BRETT: A larger pipe size?

11 MR. FERNANDES: That lower pressure, you can't move
12 that much gas even on a 42-inch line.

13 MR. BRETT: What would be the -- all right.

14 MR. FERNANDES: We did look at it at 500 pounds. Very
15 roughly, we would be able to get about 50 to 75 percent.

16 MR. BRETT: Of the 800,000?

17 MR. FERNANDES: Of our shift across that we would be
18 contemplating. So it would be the substantial reduction
19 just for distribution only, and then in that case there
20 would be nothing for transmission.

21 MR. BRETT: I understand that. This whole question
22 has to do with a scenario we are not -- where there is
23 nothing for transmission, where you don't build the
24 transmission, but you are telling me that you could only
25 get roughly 60 to 75 percent of the 800,000 across; so in
26 that instance, you would have to -- what would your option
27 be if you wished to try and get 800,000? Would you have to
28 build some of your own compression, or you would have to

1 take -- you would have to have some compression at the
2 Parkway West?

3 MR. FERNANDES: We don't have compression in our
4 distribution system today.

5 MR. BRETT: I understand that.

6 MR. FERNANDES: And given the work we've done with
7 Union and collaborating, it would make sense for us to ask
8 them for that compression service, which is what we've
9 done.

10 MR. BRETT: All right. Now, that analysis that you
11 did, you were just describing to me, is that in the
12 evidence or not? Or if it isn't, could you provide it by
13 way of undertaking?

14 MR. FERNANDES: We do have -- I don't have the
15 reference with me, so I think I can provide the undertaking
16 to give a reference where we were asked a question about
17 capacity and pipe sizing. Hopefully it would answer your
18 question. But if not, we could undertake for further
19 responses if you would like.

20 MR. BRETT: All right. I would like --

21 MR. FERNANDES: It's in the TransCanada
22 interrogatories to us. So I just don't have the specific
23 number reference --

24 MR. BRETT: Well, that's -- is that appropriate for
25 undertaking?

26 MR. FERNANDES: I'm pretty sure I could get it over
27 the break --

28 MR. BRETT: Well, maybe I could leave it.

1 MS. CHAPLIN: We will give it an undertaking number,
2 and the witnesses will respond with references in the
3 evidence which may augment what they have already provided
4 in testimony in answer to your questions, Mr. Brett.

5 MR. BRETT: Thank you.

6 MR. MILLAR: J6.3.

7 **UNDERTAKING NO. J6.3: EGD TO PROVIDE BOMA WITH**
8 **EVIDENCE REFERENCES REGARDING PIPE SIZE AND CAPACITY.**

9 MR. BRETT: Okay. Let me move on. You were asked a
10 number of questions about open season by Mr. DeRose, so I
11 won't spend but a minute on this. But as I understand it,
12 in brief summary, you asked for bids for effectively 1,030
13 -- 1,030,000 gJs a day. That's because you kept for
14 yourself 170,000 gJs a day of the 12 -- of the
15 1,200,000 gJs a day that you have for transmission. So
16 just let me answer -- let me finish the question.

17 So you got 760,000 gJs in bids, so you didn't get a
18 response -- you ended up at the end of the open season with
19 270,000 gJs a day open; in other words, not responded to in
20 the open season; correct?

21 MS. GIRIDHAR: Yes, that's a fair conclusion, but --

22 MR. BRETT: That's all I want, really, at this stage.

23 MR. CASS: Excuse me, Madam Chair. I'm certainly
24 respectful of Mr. Brett's efforts to stay within his time
25 limit, and that is much appreciated, but I think the record
26 would be much more clear, the transcript would be much more
27 clear, if the witnesses were not cut off repeatedly in the
28 course of their answers.

1 We took a long time in the previous examination to get
2 to the point that the scenario Mr. Brett was describing
3 would actually require a larger pipe size. I think if the
4 witnesses had not been repeatedly cut off we would have got
5 to that much sooner. So I don't think we're saving time by
6 having the witnesses cut off repeatedly. Thank you.

7 MS. CHAPLIN: Well, the question was fairly clear.
8 Mr. Brett asked for confirmation as to the physical numbers
9 of the open season. I think Ms. Giridhar gave the answer,
10 and I think Mr. Brett can move on with his next question.

11 MR. BRETT: Thank you.

12 Now, the question here -- you mentioned, I think,
13 earlier that two of the bidders -- or it's generally
14 understood that two of the bidders were Gaz Mét and Union,
15 and that took care of about 350,000 gJs, so you have
16 another 410,000 there to get to the 760 that was bid in.

17 Who were the people that bid in the additional amount?
18 Can you tell us that?

19 MS. GIRIDHAR: My understanding is that our STAR rules
20 prevent us from disclosing the names of shippers who have
21 bid in.

22 MR. BRETT: Your rules? Sorry, your what rules?

23 MS. GIRIDHAR: Well, under STAR we do not disclose the
24 parties that have participated in an open season until we
25 have concluded arrangements with them. So we did receive
26 additional bids beyond Union and Gaz Métro, and I'm able to
27 confirm that the volume that you are talking about was a
28 request for service in 2015, and we also had interest in

1 service for 2016 as well.

2 MR. BRETT: So you asked for service bids in both
3 years, and -- is that correct? And the 760 that I talked
4 about earlier, that is for 2015 and 2016, or is it split
5 between the two, or is it all for both years?

6 MS. GIRIDHAR: It's split between the two.

7 MR. BRETT: Oh, I see. So you don't really have any
8 given year 760, you have a lesser number than that. How
9 much do you have for the first year, for 2015?

10 MS. GIRIDHAR: My understanding was it was -- I will
11 have to go back, Mr. Brett, because I suspect one of the
12 other shippers also bid in for 2015, and if I were to tell
13 you then I would have disclosed the --

14 MR. BRETT: Perhaps -- yeah. Perhaps we could have an
15 undertaking. I would like to know who they -- what the
16 volume of bids was for each of the two years separately.

17 MS. GIRIDHAR: All right.

18 MR. MILLAR: J6.4.

19 **UNDERTAKING NO. J6.4: EGD TO PROVIDE OPEN SEASON BID**
20 **VOLUMES FOR BOTH 2015 AND 2016 SEPERATELY.**

21 MR. BRETT: Now, I would argue, I actually am of the
22 view that there is no confidentiality here, either in your
23 documents -- either in your bid documents or elsewhere, but
24 I don't really have time to engage Mr. Cass in a debate
25 over confidentiality, so I'm just going to ask: Can you
26 tell us something about the categories of shippers? For
27 example, are any of the northeast LDCs -- did any of the
28 northeast LDCs bid in either of those years? I'm not

1 asking for any names.

2 Let me put it -- I'm asking just for broad categories.

3 Let me just state for the record the three categories
4 I have in mind. There are marketers, gas marketers. There
5 are LDCs, and we know there's a lot of them that take
6 short-haul service into New England through Iroquois. And
7 then TransCanada itself.

8 Did Tran -- I'm assuming from what I've heard to date
9 and from the way you've structured this that TransCanada
10 would not be bidding into the open season, could not bid
11 into the open season.

12 MR. CASS: Well, Madam Chair, first, there is a
13 confidentiality issue that surrounds all of this
14 information that Mr. Brett is now pursuing. Second, I
15 don't understand the relevance or why the Board needs to
16 know the identity of parties that bid into the open season.
17 In particular with respect to the previous question about
18 northeast LDCs, there are LDCs participating in this case,
19 and if Mr. Brett wanted to ask them questions about their
20 requirements -- in fact, those questions have been asked.
21 The Board has lots of information about the requirements of
22 LDCs and about the requirements of TransCanada. I don't
23 see that there's a need to have this information with
24 respect to Enbridge's open season.

25 MR. BRETT: Well, again, I don't want to engage in a
26 huge debate here. There are no northeast LDCs present in
27 this case. I'm not sure what my friend is referring to.
28 There are a lot of shippers on the line.

1 MS. CHAPLIN: Well, why don't we start, Mr. Brett,
2 with you explaining how greater information as to the type
3 of customer that is bid into the open season will help us
4 to make a decision.

5 MR. BRETT: Well, I think one factor would be if we --
6 if, for example -- I think, for example, it would be
7 relevant -- we've talked a lot about capacity here,
8 additional capacity that is required on this --
9 transmission capacity that's required both from Union and
10 from Enbridge as part of a justification for their
11 proposals.

12 If it turned out, for example, that there were no
13 northeast utilities at all that had put bids in for this
14 piece of the transmission chain, I think one might draw an
15 inference from that that since long-haul contracts would be
16 required that they are not inclined to renew their
17 contracts when they expire in the next couple of years.
18 That would be one example.

19 But I don't want to overstress this. I think you can
20 make the case without it. I think it would be stronger --
21 it would give us a richer tapestry to work with if we had
22 it, but -- had the categories, but I don't think it's
23 essential.

24 MS. CHAPLIN: All right.

25 MR. BRETT: Now, if I may move on, can you tell me,
26 Madam Chair, I'm a little -- how much time I've got,
27 roughly?

28 MS. CHAPLIN: You have about ten minutes.

1 MR. BRETT: That's what I was worried about. Yeah,
2 okay.

3 All right. Let me just get on then with a piece of
4 this that I think is quite important. And I think the best
5 way to do this is probably to ask you to -- I don't know
6 that you need to turn this up, but you could put it on the
7 screen. It's 1.A1.EGD.BOMA.26. And I'll read the question
8 briefly here. I have a couple of questions for you on your
9 answers.

10 First of all, I want to just refer you to the
11 settlement agreement. Again, I don't need you to turn this
12 up, but it's the high-level principles, the second bullet
13 of the settlement agreement. And this is where -- it reads
14 as follows:

15 "Capital expansion in the EOT will be promptly
16 pursued to meet market needs and will be added to
17 the EOT rate base. TransCanada agrees to
18 accommodate the requests of EOT shippers that
19 request additional short-haul capacity during the
20 term of the settlement and reasonably thereafter
21 according to industry practice."

22 So am I correct to read that, as sort of part of the
23 overall deal, TransCanada is saying: Look, we will not --
24 we'll stop our practice of refusing to build? Since we've
25 got satisfactory overall arrangements, we will build to
26 meet the market, and the -- and our eastern Ontario line
27 will incorporate our new builds and rate base? That's
28 essentially what this is saying?

1 MS. GIRIDHAR: That is correct.

2 MR. BRETT: All right. Now, in 26, the question is:

3 "Does segment A need to be built by Enbridge, or
4 could Enbridge take capacity on a line
5 constructed by TCPL?"

6 And "Please compare the relative costs", and so on,
7 relative costs and benefits or dis-benefits to ratepayers,
8 "of having TCPL build the Bram West-Albion line" -- that
9 should now read "Parkway-to-Albion" -- "and Enbridge
10 contract its required capacity." And your answer starts
11 off, "With respect to the" -- without looking at the
12 original, the first lead-in paragraph:

13 "With respect to Bram West-Albion component of
14 segment A, the decision to build from Bram West
15 to Albion was based on a review of build and
16 contract options available in the marketplace."

17 Do you have -- have you filed in evidence that -- this
18 review of build and contract options that are available?
19 And if not, could you undertake to file it?

20 [Witness panel confers]

21 MS. GIRIDHAR: Mr. Brett, I'm thinking we would have
22 spoken qualitatively about this in the "Alternatives"
23 section of our evidence. However, in terms of a review of
24 build and contract options, essentially the Parkway-to-
25 Maple line was constrained.

26 MR. BRETT: So there -- yes, so there -- I mean, this
27 question dates from an earlier period obviously, but do you
28 have any quantitative analysis?

1 MR. FERNANDES: I think what I would like to do is
2 demonstrate -- what Enbridge did was work with its upstream
3 providers and looked at a coordinated build-out, so I can
4 demonstrate the other alternative that would be in our
5 discussions with TransCanada, but what the alternative was
6 if they were to build.

7 MR. BRETT: What I really am after is an analysis, a
8 written analysis that says -- you talked about a review of
9 build and contract options, and I'm wondering whether that
10 review -- and it's particularly the quantitative part of
11 it, because, you know, there is a quantitative dimension,
12 obviously, to this. Ownership options have financial
13 implications and contractual options have financial
14 implications. And I would have thought that you've got a
15 fairly sophisticated comparison of those somewhere.

16 MR. FERNANDES: I think if we can bring up
17 A1.EGD.CME.6, attachment 6, I'll be able to demonstrate
18 what the alternative looked like and be able to put some
19 numbers to it, if we could take a brief look at it.

20 So in our discussions, one of the alternatives that we
21 did look at was -- what you're essentially talking about is
22 a "buy versus build" scenario, where we could buy the
23 transport service to move it from west to east, rather than
24 building the infrastructure within our franchise. And in
25 the discussion when we bring that up, the alternative that
26 we looked at with TransCanada, because they have been
27 increasing capacity on their existing Parkway-to-Maple
28 path, they are at a point now where they have completed

1 what I would call the easy tranches of capacity. And in
2 our discussions with them, their next tranche of capacity
3 would have required 40 kilometres of 42-inch pipeline.

4 MR. BRETT: Just on that point, did you ask them --
5 you state in your evidence that TransCanada would not build
6 on the route that I've suggested. Did you ask TransCanada
7 whether they would be prepared to build from Parkway to
8 Albion? Was that part of your discussions with them?

9 Or from Bram -- I guess in their case from Bram West
10 to Albion. Was that question put to them? And did they
11 give you -- come back with some kind of an analysis of what
12 that would cost?

13 Particularly if they were to use your -- you have, as
14 I understand it, your Parkway North line, and your own line
15 that you propose to build would use an existing utility
16 corridor, which, as I understand the evidence, either you
17 own or you own in conjunction with public authorities. And
18 so assuming that TransCanada were to be able to make use of
19 the same corridor that you intend to make use of with your
20 segment A, did you get any assessment from them of whether
21 -- any indication that they would be prepared to build?

22 I'm -- we're speaking now, of course, in the context
23 that you're no longer at war, that you've settled. You
24 have a settlement term sheet. You're expecting a
25 settlement agreement. And as I think you've stated in
26 different ways, TransCanada is -- has been the historic
27 builder from -- of the EOT. TransCanada's historic role
28 was interrupted by the NEB's decision, which made it

1 impossible or difficult for them financially to build new
2 service.

3 But my question to you now that we've got an agreement
4 where everybody is no longer at loggerheads: Have they
5 said they won't?

6 Sorry for the length of the question, but I -- it's
7 quite important to me to get an assessment of this.

8 MR. FERNANDES: There's three relevant points.

9 We did engage with TransCanada because -- to your
10 point, Mr. Brett -- that they are the traditional builder
11 along this path. What we have up now shows the
12 alternatives. Their next tranche of capacity or -- if we
13 had simply asked them for service, their tranche of
14 capacity would have required 40 kilometres of 42-inch pipe
15 as opposed to our 27, and that would not have accounted for
16 the infrastructure required to get it into our distribution
17 system.

18 So again, the path has value going along into Albion.

19 The other points are that when we look at it from our
20 ratepayer point of view, TransCanada has a higher return on
21 equity. So it's actually advantageous to our customers for
22 us to have that pipeline being built -- assuming that you
23 are correct, technically ownership does not matter for
24 physical flows. Presumably we can both build it at the
25 same cost. There's still an advantage for Enbridge
26 customers for Enbridge to build this.

27 And finally, in our discussions, TransCanada concluded
28 that a TBO arrangement in our original MOU was better for

1 their rates and their customers, so they wanted to take the
2 service from us.

3 MR. BRETT: TransCanada's return on equity has been in
4 the -- under the settlement agreement, you've guaranteed an
5 8.7 percent return, which is less than your return on
6 equity over the next five-year period. But let me ask
7 this.

8 MS. GIRIDHAR: Mr. Brett, TransCanada's return on
9 equity is 10.1 percent according to the term sheet, not
10 8.7.

11 MR. BRETT: You have -- if there are deficiencies in
12 revenues, you're going to have a deferral account and you
13 are going to clear those deferral accounts, and your bottom
14 line is you've guaranteed them 8.7.

15 MS. GIRIDHAR: Yes, but 8.7 is not the basis of
16 ratemaking for TransCanada.

17 MR. BRETT: No, I understand --

18 MS. GIRIDHAR: And if I might just conclude on that
19 too. We do have an agreement with TransCanada that
20 obviously does need to go to the NEB. We have gone as far
21 as we could. We are looking at 15 years of -- suddenly
22 have this certainty in terms of toll methodology, six years
23 of certainty in --

24 MR. BRETT: Excuse me, I don't want --

25 MS. GIRIDHAR: -- and fundamentally the distribution
26 -- holding the asset for the benefit of our ratepayers
27 assures them --

28 MR. BRETT: I know you're -- I know you're -- sorry, I

1 know you're --

2 MS. CHAPLIN: Mr. Brett --

3 MR. BRETT: I'd like you to stop.

4 MS. CHAPLIN: Mr. Brett. You asked the question about
5 a scenario of the TCPL alternative. The witness is
6 entitled to provide their analysis of that comparison. You
7 asked for that.

8 MR. BRETT: I know, but I don't think she's --

9 MS. CHAPLIN: I understand that you feel under
10 pressure of time. We will let Ms. Giridhar finish her
11 answer, and then you can move on to your next question.

12 MR. BRETT: Thank you.

13 MS. GIRIDHAR: I was just going to conclude, saying
14 that whenever you have an arrangement with an upstream
15 transportation provider, it's a contractual arrangement for
16 a certain period of time. When we build distribution
17 infrastructure, that's available for our ratepayers as long
18 as the assets are used and useful, and in the overall
19 analysis it did make sense to build the capacity along a
20 path that feeds directly into our distribution system that
21 was substantially shorter but also had rate benefits.

22 MR. BRETT: Do you agree with me that -- thank you.
23 Do you agree with me that you -- you mention here is a
24 second reason that you give, is that you were influenced by
25 Enbridge's desire to have a degree of control over your gas
26 supply cost.

27 Do you agree with me that, whether or not TCPL built
28 the line or you, you would be able to buy your gas where

1 you wished? If you wished to buy it at Marcellus or the
2 U.S. because you thought it was -- you'd get a better price
3 there, you could buy it where you wished, move it to
4 Parkway, and TransCanada or you would then move it to your
5 franchise; correct? In other words, your -- Trans -- your
6 building your own transmission line is not a sine qua non
7 for you to be able to buy gas at the most cost-effect -- in
8 the most cost-effective way. That's a separate issue.

9 [Witness panel confers]

10 MS. GIRIDHAR: The issue, Mr. Brett, was with respect
11 to having to pay TransCanada tolls for this piece of pipe
12 versus us building and having certainty that we were going
13 to be reflecting a cost to service over time with an asset
14 that would be useful but depreciating and resulting in
15 lower-cost consequences for our ratepayers.

16 MR. BRETT: But do you agree that -- that speaks, I
17 think, to transportation cost, which is the other part of
18 your gas supply. You would agree that under the terms
19 sheet that the rates -- the tolls are going to be fixed for
20 the first five years. TransCanada's tolls on the relevant
21 paths will be fixed; correct?

22 MS. GIRIDHAR: TransCanada's tolls will be fixed for
23 the first six years, 2015 to --

24 MR. BRETT: Right.

25 MS. GIRIDHAR: -- 2020.

26 MR. BRETT: And any builds they make in that period
27 will be on the basis of rolled-in tolls, correct? That's
28 also in the terms sheet.

1 MS. GIRIDHAR: That is correct.

2 MR. BRETT: Okay. And Is there any reason in
3 principle why -- now, I agree you would have to -- is there
4 any reason why you couldn't or wouldn't, if it came to
5 that, allow TransCanada to build in your corridor rather
6 than you build in your corridor? If it were determined
7 that that was the most cost-effective corridor to use, is
8 there any reason why you would not be able to lease?

9 MS. GIRIDHAR: I think we have answered this question
10 already, Mr. Brett. What we're talking about is, under the
11 terms sheet, if it is approved by the NEB, you are talking
12 about six years of fixed tolls on the TransCanada system.
13 The highest tolls we'll actually pay if we -- as a result
14 of us building this infrastructure ourselves is for the
15 year when the rate base is first fully effective, which
16 would be 2016. Beyond that we will have declining rate
17 base because of depreciation, and that will continue over
18 the next 40 years, subject, obviously, of course to
19 maintenance and so on.

20 So fundamentally building this asset, which is
21 required for distribution purposes as part of our rate
22 base, does give us a better degree of control over the cost
23 for our customers vis-a-vis taking a service from a
24 transportation service provider whose tolls will be
25 affected not just by this pipeline but a myriad of other
26 factors.

27 MR. BRETT: Well, that is your point, and I guess
28 we'll take that to argument. But you would agree that if

1 you own the pipeline, if you own, not just your pipeline,
2 your distribution part, but the entire pipeline, that you
3 do -- you're going to be incurring depreciation charges,
4 you're going -- there are costs of ownership that you are
5 going to incur, and I think that you have made clear to
6 some others -- and I won't get into that, because Mr.
7 DeRose covered it well yesterday -- there are incremental
8 risks that you will take on by owning the pipeline,
9 particularly if it becomes clear that you -- that the
10 pipeline is not going to be full, either ever or for the
11 period of initial years; and finally, because you seem
12 based on your evidence today to my questions to you at the
13 technical conference and -- your evidence, as I understand
14 it, is that you'll start to build this line before you have
15 signed precedent agreements or signed contracts, and I
16 think you told Mr. DeRose also before the NEB has approved
17 TransCanada's Kings North line. That is correct, is it
18 not?

19 Let me break that into two pieces. It is correct that
20 you are going to start to build in advance of those, what
21 are normally customary approvals that a transmitter gets
22 before he begins to build?

23 MS. GIRIDHAR: That is correct, Mr. Brett, and at the
24 risk of repeating myself, we also laid out why it is
25 appropriate to do so, in my response to Mr. DeRose.

26 MR. BRETT: Okay. Thank you. I'm over, so thank you.
27 Those are my questions, and we'll move on.

28 MS. CHAPLIN: Thank you.

1 Mr. Rubenstein, I believe you are next on the list,
2 with 15 minutes.

3 MR. RUBENSTEIN: I thought I had 30 minutes, but I
4 will be less. I will be about 15, 20 minutes.

5 MS. CHAPLIN: Ah, you see my method.

6 [Laughter]

7 Let's say you have til the break, if we break at
8 11:00.

9 MR. RUBENSTEIN: That's fine. Thank you very much.

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

11 MR. RUBENSTEIN: Panel, I just want to start off with
12 this question. It was Union's evidence through their
13 panels that for them their two projects are the largest
14 undertaking -- single undertakings that they have ever
15 done. Is this Enbridge's largest single capital
16 undertaking that they have -- that you've ever done?

17 MR. FERNANDES: Yes.

18 MR. RUBENSTEIN: Thank you very much.

19 The first thing I -- the first area I want to talk
20 about is -- just want to go a little further with a
21 discussion that was had with Mr. DeRose last week with
22 respect to the risk if downstream facilities aren't built.
23 And my understanding from the evidence and the discussion
24 that you had with Mr. DeRose last week was that Enbridge
25 will award the capacity from its recent open season as soon
26 as the settlement agreement is approved. Am I correct?

27 MS. GIRIDHAR: That is correct.

28 MR. RUBENSTEIN: And that's very likely before the NEB

1 provides approval for construction of the TCPL's King North
2 project; correct?

3 MS. GIRIDHAR: Yes, I think I was not able to tell you
4 specifically whether it would occur before or after, but
5 likely, yes.

6 MR. RUBENSTEIN: Well, you signed the -- but you will
7 award the capacity. When will you award the capacity for
8 segment A? Will this be --

9 MS. GIRIDHAR: As soon as the NEB issues its decision.

10 MR. RUBENSTEIN: On the settlement agreement?

11 MS. GIRIDHAR: That's correct.

12 MR. RUBENSTEIN: Will you have signed the precedent
13 agreements before constructing the segment A?

14 MS. GIRIDHAR: We would expect to start construction
15 of segment A immediately after the decision by the Ontario
16 Energy Board, assuming approval, so that I understand would
17 be -- well, not physical construction, but all the
18 procurement decisions required for construction would occur
19 as early as January 2014. Does that answer your question?

20 MR. RUBENSTEIN: Well, my question is with respect to
21 the -- when you award the capacity and are signing the
22 precedent agreements and the financial backstop agreements,
23 will that happen before approval for the King North
24 project? I understand that you'll start constructing
25 segment A, but with respect to awarding capacity and then
26 signing those agreements.

27 MS. GIRIDHAR: We expect to sign those agreements. As
28 I said, it's likely that it will occur before approval of

1 the Kings North project. It's a standard practice when
2 these agreements are signed that the precedent agreement
3 would include some conditions precedent that the shipper
4 would have. So TransCanada would likely have certain
5 conditions precedent about its regulatory approval process,
6 as well.

7 MR. RUBENSTEIN: Well, okay. I think that is getting
8 into the sort of the area I want to discuss. So the
9 current precedent agreements and the financial backstopping
10 agreements that you've included in your open-season
11 package, which are essentially -- I would assume see more
12 of a template, what is -- sort of what are the general
13 expectations. Would I be correct?

14 MS. GIRIDHAR: It is correct that there are elements
15 that are negotiated with the shippers, so yes, these are
16 the template.

17 MR. RUBENSTEIN: So the current financial backstopping
18 of precedent agreements, they don't include any of these
19 conditions with respect to downstream facilities?

20 MS. GIRIDHAR: I'll have to read them through, but
21 generally we would expect the shipper to add certain
22 conditions precedent that would be unique to them.

23 MR. RUBENSTEIN: And you would expect that there would
24 be a condition that would require the approval and the
25 construction of those downstream facilities, for the
26 reasons that were discussed with Mr. DeRose, that a shipper
27 doesn't want to pay for -- there's no value of just getting
28 the gas to Albion?

1 MS. GIRIDHAR: I think it's also fair to say that even
2 if there was a condition precedent around regulatory
3 approval of the downstream facilities, that the cost
4 consequences could begin to accrue before that conditions
5 precedent date. So that is also fairly typical in these
6 arrangements.

7 What those conditions precedent would do would limit
8 exposure, but they would not absolve them of cost
9 consequences.

10 MR. RUBENSTEIN: I would like to understand. If
11 ultimately those downstream facilities are not built, but
12 some form of a precedent agreement and financial
13 backstopping agreements have been signed after the capacity
14 was awarded, would you expect that there will be some risk
15 on those shippers if there are -- if the downstream
16 facilities are not built because of the lack of approvals?

17 MS. GIRIDHAR: So again, we have not entered into
18 those negotiations yet with these shippers, but there are
19 standard considerations in signing these sorts of
20 arrangements.

21 In any precedent agreement regarding transportation
22 service, there's usually contemplation of the level of
23 exposure, the limitation of exposure and the timing of
24 exposure, so I'm not able to be any more specific than
25 that.

26 MR. RUBENSTEIN: And you understand from our
27 perspective the reason we're asking this is from -- the
28 current evidence is that if there's no capacity that flows

1 on segment A, distribution ratepayers are responsible for
2 the cost of segment A. So I'm trying to better understand
3 what are the possible risks that the shippers are -- sort
4 of a portion of the costs of segment A that could flow to
5 shippers even if there's no downstream facilities that
6 ended up being constructed.

7 MS. GIRIDHAR: Yes. And my response is that it's
8 difficult for me to contemplate exactly what they might be
9 at this point in time, because we have not negotiated those
10 agreements.

11 But again, at the risk of repeating myself, we have
12 shown that the NPS 42 is feasible and economic even if
13 there was no downstream shippers, transmission shippers.

14 MR. RUBENSTEIN: All right. I would like to move onto
15 another area with a quick question with respect to
16 transportation savings.

17 Much of the discussion with Union in this hearing has
18 revolved around the term sheet and how it affects the
19 projected gas savings costs. In a broad sense, it's
20 Union's position that the gas saving numbers will not
21 change with respect -- since the aim of the term sheet is
22 to maintain the differentiate between long- and short-haul
23 tolls.

24 Does Enbridge take the same view as Union with respect
25 to its gas savings costs, that the proposed transportation
26 changes will be unchanged because of the term sheet, since
27 the differential between long-haul and short-haul tolls are
28 -- it's their -- expected to be the same?

1 MS. GIRIDHAR: I think we're able to say that we don't
2 expect them to be materially changed, but we are in the
3 process of receiving some indicative tolls from
4 TransCanada. So to the extent that the differential -- to
5 the extent that we're considering that differential between
6 long-haul and short-haul, indications right now is that
7 they may actually increase slightly, as opposed to being
8 exactly the same, which would obviously make the benefits
9 higher.

10 MR. RUBENSTEIN: And Union had stated that before the
11 joint panel, it will provide its -- I'm not sure there was
12 any specifics about what exactly the information that they
13 will provide, but they will be trying to provide the
14 expected tolls and potentially the impacts on their
15 transportation savings.

16 Would Enbridge be doing the same thing?

17 MS. GIRIDHAR: We do expect to provide a table, yes.

18 MR. RUBENSTEIN: I want to talk about the SMYS and
19 pipeline pressure issue that was discussed earlier on today
20 but also in the panel 2 discussion. If we can bring up
21 Exhibit A, tab 3, schedule 3, page 17?

22 So at paragraph 30 you discuss why the threshold of
23 30 percent SMYS is important. The second, four lines from
24 the bottom, the second reason is, the second:

25 "It is required by Ontario Regulation 223/01 that
26 integrity management program is in place for all
27 pipelines operating at or above 30 percent SMYS."

28 Am I correct that the regulation essentially

1 references a TSSA document that provides for that?

2 MR. THALASSINOS: Yes. That's referencing a TSSA
3 document, oil and gas pipeline systems coded option
4 document, FS-196-12.

5 MR. RUBENSTEIN: And the discussion that you had with
6 Mr. Elson today was -- you'll provide an undertaking to
7 provide that integrity management program, but my
8 understanding is you have that in place for all your over
9 30 percent SMYS pipelines?

10 MR. THALASSINOS: Just to clarify, we do have a broad
11 integrity management program. This particular regulation
12 and -- that was recently adopted -- requires, in addition
13 to the integrity program that we've always had, is to look
14 at the risks and remediate the risks for pipelines
15 operating greater than 30 percent of SMYS, with the
16 direction of looking to reduce those risks.

17 So our -- and that 30 percent SMYS number is important
18 because that's the generally understood leak rupture
19 boundary, where if there was a defect below 30 percent
20 SMYS, that would most likely result in a leak; versus if
21 there was a defect above 30 percent SMYS, that would --
22 could result in a rupture which would have catastrophic
23 consequences.

24 So our response to that is, directionally, we are
25 looking to lower the operating stress on our high-stress
26 pipelines to less than the 30 percent of SMYS, including
27 the lines that we are speaking about in this application.

28 MR. RUBENSTEIN: I understand that. And I know we'll

1 be getting by way of undertaking the actual document, but I
2 was wondering if at a high level you can talk about what
3 exactly the integrity management program includes with
4 respect to dealing with high-stress or above 30 percent
5 SMYS pipelines.

6 MR. THALASSINOS: Okay. Let me just step back and
7 then I'll try to answer your question.

8 We said we are directionally looking to lower our
9 pipelines operating less than 30 percent SMYS. What that
10 means is that moving forward, we need to look at all of our
11 pipelines, and prudently look at what are the risks
12 associated with those pipelines and identify how would we
13 go about reducing that risk, whether it's by lowering our
14 operating pressures during summer, during the summer
15 season, or whether -- or in what order we would be reducing
16 those stresses below 30 percent of SMYS.

17 In order to do that, we need to have the opportunity
18 to lower our stress below 30 percent of SMYS. So with
19 these facilities -- without these facilities we cannot
20 lower the stress on these old -- greater than 40-year-old
21 pipelines with a single feed to downtown Toronto that would
22 result in the loss of tens of thousands of customers.

23 MR. RUBENSTEIN: No, I understand why you believe
24 these pipelines are important. I just want to -- much
25 basic level.

26 You're required by the regulation to have an integrity
27 management program in place for all pipelines operating at
28 or about 30 percent SMYS, and my question is just more

1 specific to that.

2 What exactly would be in the integrity management
3 program to deal with this? What exactly is included in
4 that document at a high level?

5 MR. THALASSINOS: So when referencing before the
6 integrity management program, I was referring to our
7 general integrity management program that we use to assess
8 all of our pipelines and identify our highest-risk assets
9 and both quantitatively and qualitatively.

10 We have not done an analysis looking at these
11 particular -- all of our lines over 30 percent of SMYS to
12 determine which -- in what order those lines should be
13 reduced in operating stress. We would have to do an
14 analysis of the risk associated with the pipelines, what
15 effect they would be, in terms of the operation of the
16 system, and where are the opportunities to reduce those
17 operating stresses.

18 MR. RUBENSTEIN: All right. If we could just move one
19 page. This might flow into your answer to the last
20 question. We can move one page just to page 18, and in
21 paragraph 33, which is just at the bottom. I'll just read
22 the paragraph:

23 "The company believes that in order to ensure
24 continuing reliable and safe delivery of service
25 it should diversify the supply pass, increase the
26 flexibility of the systems, and reduce the
27 operational risk associated with the two key
28 pipelines by reducing the operating pressure

1 below 30 percent SMYS. The company plans to
2 reduce the operating pressure of these two
3 pipelines below 30 percent SMYS after the
4 proposed facilities have been installed. It is
5 expected that these lines would continue to be
6 considered under the company's integrity
7 management program."

8 So regardless of reducing the pressure for those
9 lines, it's still going to be under the integrity
10 management program which you are required to do for
11 pressures above 30 percent?

12 MR. FERNANDES: If you're referring to the integrity
13 management program, one of the major components would be
14 in-line inspections or internal inspections. So our plan
15 is to actually continue to do that on these pipelines,
16 given their location and their large diameter. So that is
17 what has been determined to be the best technology
18 available for monitoring integrity of pipelines above
19 30 percent.

20 So we're going to continue on those to ensure that we
21 have appropriate information to manage those pipelines over
22 their remaining life.

23 MR. RUBENSTEIN: So with respect to what you are
24 required to do by the Ontario regulation, would I be right
25 saying that, regardless of the pressure, you'll be doing
26 the same thing?

27 MR. THALASSINOS: No. The integrity management
28 program considers pipelines operating -- our integrity

1 management program considers looking at the risk associated
2 with pipelines operating above and below 30 percent of SMYS
3 and all of our assets.

4 The specific directive with the TSSA code adoption
5 document is to take a special look at the particular risks
6 associated with pipelines operating over 30 percent of SMYS
7 with the intent of remediating and reducing that risk.

8 So in our response to that is that directionally we
9 are looking to reduce the operating stresses on our
10 pipelines operating greater than 30 percent to reduce that
11 risk, and that is particular to pipelines operating over
12 30 percent of SMYS.

13 MR. RUBENSTEIN: Okay. Thank you very much.

14 And the last thing is, Mr. Fernandes, you talked
15 earlier in response to questions by Mr. Elson about the
16 benefits of the project as it relates to lowering the
17 pressure, and you were discussing how, you know -- as it
18 relates to ageing infrastructure. Do you remember that?

19 MR. FERNANDES: I remember the conversation. Is there
20 something more specific?

21 MR. RUBENSTEIN: Yeah. I took that to -- and correct
22 me if I'm wrong -- that implicitly by lowering the pressure
23 you are helping to maintain those ageing pipelines. Would
24 that be correct?

25 MR. FERNANDES: What I think we're trying to
26 articulate is that, given changes in code, changes in
27 societal risk tolerance, by lowering the pressure or
28 reducing risk, it allows us to be more comfortable with

1 extending the life of those assets and continuing to have
2 them used and useful for the benefit of our ratepayers.

3 As you can see from a map, though, you know, they are
4 -- there's no definitive plan, absolutely, but nothing
5 lasts forever. So we're putting in place infrastructure so
6 that when the determination is made that those pipelines
7 either need to be taken out of service or lowered further,
8 and how we manage that over its life cycle, we have the
9 other infrastructure in place to ensure we can still meet
10 firm demand.

11 That is what we're really trying to say, is that this
12 is not simply added capacity. Its location was well in our
13 network, and it's pre-planning for things that we know will
14 eventually over the life -- the remaining life of those
15 assets that, although we're reducing their capacity today,
16 they are still going to be very useful.

17 So it's important to understand that we want to have
18 those diversity of paths within our system operationally
19 today, but as in the future when those assets and other
20 assets may be taken out of service or lowered, in terms of
21 their capacity, we've inherently strengthened the rest of
22 our infrastructure.

23 And we have done this historically. I mean, we have
24 in on evidence that we have lowered pressure on other
25 ageing infrastructure. If we go through the history
26 section, we quite explicitly mention how that has happened.

27 So the point being is that we're reinforcing along key
28 supply lines in order to add diversity, but we're also

1 putting them in strategically placed to ensure that when we
2 do have to lower capacity in the future we'll have capacity
3 already available.

4 MR. RUBENSTEIN: So would I be correct in saying that
5 if you don't -- with respect to the benefits on the
6 pressure issue, that the pipelines will stay in service
7 longer than would otherwise be by lowering the pressure
8 through this project?

9 MR. THALASSINOS: Yes, that's correct.

10 MR. RUBENSTEIN: And did Enbridge calculate how much
11 longer or the economic benefits would be in sort of
12 deferring replacement of certain assets by undertaking this
13 program which lowers the pressure for some of the
14 pipelines?

15 MR. THALASSINOS: No, no, that's not how we would go
16 about assessing the -- in making those decisions. So we,
17 as noted earlier, we have integrity management programs, so
18 we assess the condition and operating conditions and
19 geography, including intensification of all of our assets,
20 and we have intensive internal inspection programs that
21 assess our pipelines periodically. We also have
22 maintenance programs that ensure that we can extend the
23 life of our pipelines.

24 As we assess those -- and for example, if we were to
25 have inspections, and by looking at that, we were to
26 determine that we would need to lower the operating
27 pressure based on its condition and operating history, then
28 we would do so at this time. We can't predict when or how

1 long that would be. That is something that we would be
2 constantly monitoring and maintaining through the life of
3 the pipeline.

4 MR. FERNANDES: A little bit more colour specifically
5 with respect to this project. We did mention that Exhibit
6 A, tab 3, schedule 9 talked about the costs that are
7 included here, and we've stated that there are other
8 benefits, so specific to your point around economic
9 feasibility, the economic feasibility that we presented
10 does not include a number of items. It does not include
11 the replaced capacity by lowering the pressure. That has
12 not been monetized, even though it has value for
13 ratepayers. But it has been included in the economic
14 feasibility with zero monetary value.

15 The other benefits that we talked about with respect
16 to the reliability of our supply chain, such as the second
17 feed into Toronto, the elimination of the east/west
18 bottleneck, additional entry points into our system, and
19 the upstream contracting, all of those things have been
20 included at zero economic value, even though they're
21 valuable for our customers in terms of the economic
22 feasibility presented for this project. So they are the
23 important items, but we have not monetized them, if that
24 was the crux of your question.

25 MR. RUBENSTEIN: Well, I just, as an example, there's
26 the chart just above paragraph 33. So I would -- would you
27 agree then that, say, for the NPS 30 Don Valley pipe
28 installed in 1971 with an SMYS of 36 percent, that you want

1 to lower below 30, you cannot say that, We expected that it
2 would need to be replaced in some year, and now we think
3 that we can now get certain more years of use out of it
4 because of lowering the pressure?

5 MR. FERNANDES: I think the simple answer is no.

6 MR. THALASSINOS: I'll just add to that. I think we
7 can say that we'll be able to extend the life; we cannot
8 determine how much we would be able to extend the life.

9 MR. RUBENSTEIN: Thank you very much. Those are my
10 questions.

11 MS. CHAPLIN: Thank you, Mr. Rubenstein. Just before
12 we take our break, I just want to raise some questions
13 regarding tomorrow.

14 We have the joint GEC and Environmental Defence panels
15 appearing, and I believe they're committed for tomorrow and
16 they need to be completed tomorrow. That's correct?

17 MR. POCH: The gentlemen are in Toronto.

18 MS. CHAPLIN: Now, what amount of time were you
19 proposing for them in terms of direct examination, if any?

20 MR. POCH: I think I indicated early on I had expected
21 about half an hour, because there has been any number of
22 things that have come up since they filed their reports
23 that they will be responding to.

24 MS. CHAPLIN: So that would mean -- that would give
25 the estimates for that panel at close to three hours, I
26 believe. And I believe we still have almost two hours
27 remaining for Enbridge panel 2.

28 So I guess maybe I would ask Mr. Millar to discuss

1 with the parties how we might order those. Maybe we need
2 to do the GEC/Environmental Defence panel first, to ensure
3 they are completed.

4 MR. ELSON: Could I make some comments on that issue,
5 actually?

6 MS. CHAPLIN: Mm-hmm. Yes.

7 MR. ELSON: This is Kent Elson from Environmental
8 Defence.

9 We would have concerns with our panel presenting
10 evidence after the applicants' panel has presented its
11 evidence on DSM.

12 MS. CHAPLIN: You mean before?

13 MR. ELSON: Sorry, the other way around. So our
14 preference of course would be to have our panel go second
15 on Thursday. I'm hoping from the looks of the time
16 estimates that that is doable. I don't know if the Board
17 could possibly sit for an extra hour or half an hour if
18 that's necessary, but in the normal course, our expectation
19 is that we would be providing our evidence in response to
20 the applicants' evidence.

21 MS. CHAPLIN: I understand that. I guess we're also
22 trying to work up against a variety of scheduling
23 constraints.

24 All right. Well, the Board will consider whether or
25 not we can sit an extended day tomorrow.

26 Perhaps I would just ask for parties -- so we still,
27 for Enbridge panel 2, we are still Mr. Brett, Mr. Poch, Mr.
28 Quinn, Mr. Wolnik, and perhaps, I think, a bit from Mr.

1 Rubenstein. So maybe -- on my information that I had, that
2 added up to two hours. Maybe parties could either confirm
3 those times to Board Staff or revise them, to see whether
4 or not that full amount of time is still needed.

5 MR. CRANE: Madam Chair, it will be small comfort to
6 you, but IGUA was allocated, I think, five minutes for the
7 GEC panel, and I don't anticipate having any questions for
8 them.

9 MS. CHAPLIN: Great. It's five after eleven. We'll
10 break now until 11:30.

11 --- Recess taken at 11:06 a.m.

12 --- On resuming at 11:34 a.m.

13 MS. CHAPLIN: Please be seated.

14 So we understand from Board Staff that we should be --
15 that there should be no difficulty completing the Enbridge
16 Panel 2 tomorrow first and then proceeding with the
17 GEC/Environmental Defence panel. And to the extent that it
18 goes a bit over time, the Board does have some availability
19 to sit for part of the afternoon to ensure that completes.
20 But it's our expectation that wouldn't require too much
21 additional time. So with that.

22 MR. POCH: I think I'm next up, Madam Chair.

23 MS. CHAPLIN: Are you? Okay. Thank you. I've lost
24 my list.

25 MR. POCH: I saw you searching, so...

26 MR. THALASSINOS: Sorry, excuse me, Madam Chair.
27 Sorry.

28 MS. CHAPLIN: Yes.

1 MR. THALASSINOS: Just by point of clarification, I
2 just want to clarify, I believe it's undertaking J6.2,
3 which is the filing of the integrity report. I just want
4 to clarify that we can provide that report in confidence.

5 MS. CHAPLIN: All right. Would you be able to --
6 well, I guess we will expect Enbridge to file that in
7 accordance with the Board's confidentiality practice
8 direction.

9 MR. CASS: Yes, Madam Chair. I haven't seen the
10 report. I would have to see it and then of course make
11 sure that the filing complies with the Board's practice
12 direction.

13 MS. CHAPLIN: Okay. And it was Mr. Brett, I believe,
14 that requested that. Was it? Sorry, I'm... Was that?

15 MR. MILLAR: I think it was Mr. Elson, perhaps?

16 MS. CHAPLIN: Mr. Elson. Thank you.

17 So a number of counsel have already signed
18 declarations and undertakings with the Board, have they
19 not?

20 MR. MILLAR: Yes, they have.

21 MS. CHAPLIN: Okay. And Enbridge would propose to
22 provide it to those that had signed that in the first
23 instance?

24 MR. CASS: Yes.

25 MS. CHAPLIN: Okay. So let's proceed on that basis,
26 then.

27 MR. THALASSINOS: Sorry, sorry, Madam Chair. Just a
28 second item.

1 MS. CHAPLIN: Yes. Yes, Mr. --

2 MR. THALASSINOS: Just to clarify something on the
3 record. There was a reference, in terms of what -- how
4 many kilometres there are at EGD that are greater than
5 30 percent of SMYS, and for the record, it's 262
6 kilometres.

7 MS. CHAPLIN: Thank you, Mr. Thalassinos. Okay.

8 MR. FERNANDES: Madam Chair, there was one other item
9 from an undertaking.

10 MS. CHAPLIN: Sure, Mr. Fernandes. Go ahead.

11 MR. FERNANDES: Mr. Brett was asking for references
12 with respect to a lower pressure on segment A, and I can
13 give the references. One is IA3.EGDupdate.Staff.4. The
14 other one is I.A3.EGDupdate.TCPL.24C. Thank you.

15 MS. CHAPLIN: Thank you.

16 Any other preliminary matters? Okay. Please proceed.

17 MR. POCH: Thank you, Madam Chair.

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

19 MR. POCH: Gentlemen, earlier this morning you were
20 talking about -- gentlemen and Ms. Giridhar -- you were
21 talking about the sort of other benefits of your project
22 that aren't caught in your economic analysis. One of them
23 was this sort of pre-planning for, eventually, that -- the
24 hope that you would defer replacement of pipe out in the
25 future.

26 We're talking ten or 20 years from now, that kind of
27 time frame?

28 MR. FERNANDES: In terms of the path into -- if we can

1 look at the panel board, into Albion?

2 MR. POCH: I was thinking of more the -- on the Don
3 Valley Parkway line.

4 MR. FERNANDES: On the Don Valley Parkway line? Well,
5 that line is, as we speak today, over four decades old.

6 MR. POCH: I understand, but it's not in your ten-year
7 plan to...

8 MR. FERNANDES: Part of the ten-year plan includes the
9 GTA project, which is lowering the pressure. In our ten-
10 year plan there is nothing additional beyond that at this
11 point in time.

12 MR. POCH: I understand. And I'm just saying you
13 suggested this -- you would hope this would extend its
14 lifetime. That period of extended lifetime, that would
15 start ten or 20 years from now, when you might otherwise
16 have to take it out of service?

17 MR. FERNANDES: So the pressure reduction contemplated
18 in this application is part of our ten-year plan, which is
19 a rolling plan. So that does get revisited every year.
20 And at this point in time there is nothing over and above
21 the currently proposed pressure reduction within that plan.

22 MR. POCH: I'm just saying if you didn't do the
23 pressure reduction. You are saying the pressure reduction
24 is going to extend the life of this pipeline. If you
25 didn't do the pressure reduction you would have to take it
26 out at a certain date. With the pressure reduction you are
27 expecting it to be extended by some uncertain period of
28 time.

1 That uncertain period of time, when does it occur?
2 Are we talking ten years from now? Twenty years from now?

3 [Witness panel confers]

4 MR. MOORE: So I think I can answer your question. We
5 don't have a specific time determined when we have to
6 replace sections of that line if it's not otherwise -- if
7 this project isn't built out and we have the additional
8 line.

9 The integrity management program is -- which I think
10 referred to as revisited frequently, and just this past
11 summer we had to replace almost 750 metres of that line.
12 So I don't know if that helps to answer the question.

13 There is sections of it we just recently replaced, so --

14 MR. POCH: That was because of the washout, correct?

15 MR. MOORE: Because of -- not because -- no, we didn't
16 replace that because the washout. It was replaced because
17 of anomalies determined from an internal inspection, toll
18 runs on the line. So --

19 MR. POCH: So -- sorry, finish your thought. I...

20 MR. MOORE: We were fortunate that that -- that we
21 could do that in the summer. Obviously we couldn't in the
22 winter. This single, large, single-feed line, 40-plus
23 years old, as you've heard, needs to have that extra
24 reinforcement, this other loop to --

25 MR. POCH: I don't want us to hear your whole case
26 again if you'd permit me to interrupt you. We've heard
27 these points many times. I was just asking what you think
28 the physical life of the pipeline is that you were

1 anticipating extending with this. And I gather you don't
2 have a fixed date.

3 MR. THALASSINOS: That's correct, it is not
4 deterministic. Having said that, we've seen from other
5 applications to the Board, including the NPS 20 pipeline,
6 the Lakeshore pipeline, that that was reduced down to 175
7 pounds. We've extended that life, and because we've been
8 able to -- were able to reduce it to 175 pounds, and
9 presumably we would not have been able to extend that life
10 at that time if we weren't able to reduce it down to 175
11 pounds, and --

12 MR. POCH: You would agree with me, just in terms of
13 the economics of the project, if that happens, if that
14 extended period of time is, in effect, a decade from now or
15 15 years from now, whenever it is, once we bring it back to
16 present value it's much less, in terms of its value?
17 That's just the nature of discounting.

18 MR. FERNANDES: Actually, I think we can very
19 explicitly show the discount values used in the economic
20 feasibility. It's already in our tables. And if you look
21 at it, for example, to your point, a discount value for ten
22 years would be .54.

23 MR. POCH: Right. Okay.

24 MR. FERNANDES: So a 46 percent reduction, but still
25 substantial.

26 MR. POCH: Fair enough. The other point you made
27 about these other benefits that aren't captured in your
28 analysis was, Ms. Giridhar, you were speaking of -- that

1 the cost-benefit analysis didn't take into account the
2 customer societal savings of using gas rather than
3 electricity.

4 Would you agree that in a scenario that Mr. Elson and
5 I have been advancing, where conservation programs allow
6 you to hold load at its current level and still do customer
7 additions, there is no such concern? You'll be able to
8 obtain all those benefits with your customer additions in
9 that scenario, and that value would be zero.

10 MR. FERNANDES: I think what you just stated, Mr.
11 Poch, would be double-counting the TRC benefit, if I'm not
12 mistaken.

13 MR. POCH: I'm just asking -- you're taking -- you're
14 saying there was...

15 MR. FERNANDES: The TRC includes all of the resources.

16 MR. POCH: Yes, I understand.

17 MR. FERNANDES: So I think we would want to make sure
18 we keep everything on a consistent and comparable basis.

19 MR. POCH: I see what you are saying, but I just want
20 to be clear here. If customer additions are maintained,
21 there's no added societal cost of switching to electricity.

22 I'm not talking about the savings on the TRC from the
23 conservation. I'm talking about if customer -- in a
24 scenario where customer additions are as you forecast,
25 there is no such benefit?

26 MR. FERNANDES: If you want to make an assumption that
27 there's no incremental load, then there's no incremental
28 load and therefore you can't have any potential offset from

1 another fuel.

2 MR. POCH: Right.

3 MR. FERNANDES: But that's solely due to your
4 assumption.

5 MR. POCH: Yes, of very successful DSM offsetting the
6 additional load from customer additions; correct? That's
7 what we're talking about, that assumption?

8 MR. FERNANDES: If that was the case, correct, but I
9 think what we went through yesterday, that would be already
10 included in your TRC benefits.

11 MR. POCH: All right. Yet another person heard from
12 on the phone.

13 All right. I was discussing with you, Mr. Fernandes,
14 the last day about the ability to -- how often you can
15 reduce pressures on the Don Valley line and so on. And we
16 got to a point -- I think it was at transcript page 110 --
17 where you passed the puck to -- passed the buck to Mr.
18 Thalassinos. I've got you both here today, so I'll follow
19 up on that if I can.

20 First of all, do you need 225 PSI at station B all the
21 time or only at peak times?

22 MR. THALASSINOS: That is minimum system pressure at
23 all times.

24 MR. POCH: At all times? Okay.

25 Now, this maybe has to be answered in an
26 interrogatory. I've got a few scenarios.

27 I'm wondering if you have segment A and you have the
28 east-west portion of segment B -- and call it B1 -- if you

1 reduce the pressure at the top of the Don Valley line to
2 the 30 percent level, so that's 375 PSI, with today's load
3 and with your interruptibles off and with PEC and your
4 other industrial loads interrupted, do you obtain 225 at
5 station B?

6 MR. FERNANDES: I'm sorry, I think that really is a
7 question directed at Mr. Naczynski, as it would require
8 simulation and network modelling.

9 MR. POCH: Perhaps, then, I could ask for an
10 undertaking. I don't want to -- I thought we'd bounced
11 these questions here. I'm getting bounced back and forth
12 and I've lost my chance to go back to that panel.

13 Would that be acceptable, Madam Chair? I had
14 indicated I had finished at the -- at 1:30. I can --
15 that's the alternative, I suppose, but it sounds like we're
16 going to need system simulation anyway. If we're going to
17 need an undertaking, I wonder if I can just get it now.

18 MR. FERNANDES: I think we're going to need to run a
19 model in order to answer that type of question.

20 MR. POCH: Let's lay it out with the three scenarios
21 so we can get it all in one undertaking.

22 With that situation, with Victoria Square held at 375
23 PSI, with your four industrial customers and whatever other
24 interruptible load you have off, what are the pressures at
25 station B -- at peak time, obviously -- without any of your
26 new lines, with just segment A -- I assume that that's the
27 same -- with segment A and the east-west section of segment
28 B.

1 I think that covers the alternatives there.

2 MR. MILLAR: J6.5.

3 **UNDERTAKING NO. J6.5: EGD TO PROVIDE MODEL SIMULATION**
4 **RELATED TO THE PRESSURES AT STATION B IN RESPONSE TO**
5 **GEC SCENARIOS.**

6 MR. POCH: This may also be an undertaking.

7 We spoke last day about -- you've got 450 PSI at the
8 top of that line and 225 at the bottom, and it reduces as
9 you go down the line. Can you just tell us at -- how much
10 of the line is above 30 percent? Is it linear?

11 MR. MOORE: What we said was if it's a set pressure at
12 Victoria Square, the pressure will drop because of
13 hydraulic friction losses down at the end. However, in
14 actual operation that doesn't happen, because there's
15 situations where there isn't very much flow; for example,
16 three o'clock in the morning. And at those times the
17 pressure is going to creep back up along the whole --
18 virtually the whole line. It's dependent upon the flow
19 rate.

20 MR. POCH: And that's what I was really asking you
21 about, at peak times, because I think we had established
22 last day that you do control this system hour by hour. And
23 of course you have weather forecasts, so you can adjust
24 your pressures at Vic Square down on those times when you
25 would otherwise needlessly be increasing the pressure;
26 correct?

27 MR. MOORE: Today we -- today we control the pressure,
28 try to keep it as low as practical during the summer.

1 MR. POCH: So at three in the morning you could lower
2 it?

3 MR. MOORE: Three in the morning in the winter? Not
4 necessarily.

5 MR. POCH: Which is it? You either need the pressure
6 or you don't. I'm trying to understand.

7 MR. MOORE: We design for peak day.

8 MR. POCH: I get that. I'm just asking in terms of
9 your operating procedures, do you try to lower the pressure
10 whenever possible, or not?

11 MR. FERNANDES: I think we do try and lower the
12 pressure whenever possible, but I think what you're
13 alluding to is we don't have wild swings in pressure on any
14 given day. So once we get to a winter condition, we're
15 typically operating at a set point above 30 percent. And
16 as the loads vary, the entire line or only a portion of it
17 would be above 30 percent, depending on the loading.

18 But you don't vastly change the pressure in a step
19 function manner. It's not electricity like a light switch.
20 If we move our pressure set points around, it's on a much
21 more measured basis.

22 MR. POCH: You can change it hour by hour; correct?
23 You can change it on an ongoing basis? It takes - there
24 may be a lag, is what you are telling me?

25 MR. THALASSINOS: So for operational reasons through
26 the winter, you -- we need to control the pressures and the
27 flows in our line, which includes also repacking the line
28 in between peaks so that you're best prepared to deal with

1 any loads on the following day.

2 So we -- when we talk about lowering the operating
3 pressures, we're primarily talking about lowering the
4 operating pressures during the summer operations. We would
5 not -- we're not entailing lowering the operating pressures
6 in the middle of cold weather because that would introduce
7 other risks and it's not prudent.

8 MS. GIRIDHAR: If I might just add, with my very
9 sporadic understanding of what gas control does, but the
10 group does report to me --

11 [Laughter]

12 MR. POCH: You shouldn't have admitted that, then.

13 MS. GIRIDHAR: I only say this because from an
14 upstream perspective, you know, gas controllers have to be
15 conscious of a number of things, including downstream
16 pressures, but also how we need to be in compliance with
17 our upstream contracts, and that's the aspect that I could
18 speak to.

19 Out upstream service providers expect us to stay
20 within one-twentieth on an hourly basis. What that means,
21 though, is, because our diurnal swings are so high, in the
22 morning and evening it does mean that they need to pack the
23 system such that their draws at six o'clock in the morning
24 or whatever are not so excessive that we are in flagrant
25 violation of our upstream contracts.

26 So that would also restrict our ability to control
27 pressure hour by hour, because that would mean that when
28 you actually do need to have more flow, you are unable to

1 do so.

2 MR. POCH: Fair enough. I guess -- the other day I
3 took the panel to an interrogatory response from Mr.
4 Chernick that may recall if you were on the panel or if
5 you've read the transcript.

6 It was M.GEC.EGD.1, and there was a graphic of the --
7 on page 3, a graphic of the flows which he took from your
8 data. And at the time I asked if witnesses were
9 comfortable with the math. They said yes.

10 Subsequently your colleague said he just did a quick
11 calculation. He thought it was 25 percent, not 19 percent.

12 I just wanted to just touch on that and make sure we
13 didn't leave that kind of standing. 943 is the peak-hour
14 volume at Victoria Square. We have that from
15 1.A1.EGD.BOMA.25, attachment 1.

16 MR. FERNANDES: I am assuming you've got the reference
17 right and you've got the number, so...

18 MR. POCH: And in 1.A1.EGD.BOMA.19.1 -- we might want
19 to look at that -- it says that reducing the pressures at
20 Vic Square to 375, the level needed to get down to
21 30 percent, reduces the flows at the bottom to 165
22 teraJoules per day?

23 MR. FERNANDES: That's correct.

24 MR. POCH: All right. Now, Mr. Chernick just
25 converted that to 10^3 m^3 -- 165 turns out to be 181, using
26 whatever conversion rule of thumb you do -- you use with
27 that?

28 MR. FERNANDES: I think that should be confirmed,

1 because that does not sound correct to me.

2 MR. POCH: Okay. Can we get an undertaking on that?

3 Is 165 teraJoules per day approximately $181 \cdot 10^3 \text{ m}^3$ per hour?

4 MR. MILLAR: J6.6.

5 MR. POCH: Or what is it. Thank you.

6 **UNDERTAKING NO. J6.6: EGD TO CONFIRM GEC'S**

7 **CALCULATION OF TJ TO $10^3 \text{ M}^3/\text{HR}$**

8 MR. POCH: And, now, that was the basis for the
9 19 percent. 181 is 19 percent of 943. So that would be
10 helpful just to get that clarified and tied up. Thank you.

11 So I understand your point about, that you can only
12 change -- within a day because of your upstream commitments
13 and because of needing to pack the line again, you can only
14 change so fast. I think we heard, was it 20 percent per
15 hour? Was that the rate that you are constrained to?

16 MS. GIRIDHAR: One-twentieth of the day, I think,
17 is --

18 MR. POCH: One-twentieth of the day. So 5 percent --
19 is that per hour?

20 MS. GIRIDHAR: 5 percent. Yes. So --

21 MR. POCH: So you can only change it 5 percent per
22 hour to remain in compliance with your upstream
23 obligations.

24 MS. GIRIDHAR: Yes.

25 MR. POCH: Okay. And I understand -- so I guess what
26 I'm asking is if we can get an actual number of how many
27 hours a year or days a year, if we had your industrial
28 loads and PEC and your interruptibles off -- I'm talking

1 about an emergency situation here, where you could
2 interrupt those and it wouldn't be highly -- that we
3 wouldn't be in this scenario you're talking about, having
4 to go and shut off millions of users and re-light them and
5 so on. We understand --

6 MR. FERNANDES: I think we've said that Portlands is a
7 firm contract.

8 MR. POCH: Yeah, I understand that, but we also
9 discussed how in an emergency you could interrupt.

10 MR. FERNANDES: We said that would be a force majeure
11 type --

12 MR. POCH: Yes.

13 MR. FERNANDES: -- situation, not something that's
14 planned for --

15 MR. POCH: I understand. I'm not suggesting you
16 planned for it. I'm just asking --

17 MR. FERNANDES: What we've heard from the IESO is that
18 Portlands is systemically important to the electric system,
19 and they also stated that they have run every single peak
20 winter day since being in operation.

21 MR. POCH: Yes, and we've dealt with that. Mr.
22 Chernick deals with it in his evidence, and I don't want to
23 get into a long discussion of that with you. I'm just
24 asking, in a situation of emergency -- I want to know how
25 often, how many hours a year, given your ability to ramp,
26 and given the needle peaks we see on that, the exhibit I
27 just referred to before, which are from your own evidence,
28 how many hours or days a year you could maintain 225 or

1 whatever you would need to maintain with those industrial
2 customers and PEC often -- it may be less than that -- how
3 many hours a year you would need to stay up above that
4 30 percent, that 16, you could handle that 165 teraJoules
5 drop, whatever the equivalent is, in cubic metres per hour.

6 And I'm not asking how you in fact do it, because I
7 understand you -- as a matter of practice you basically
8 just keep the pressure high all winter. I'm asking, given
9 the constraint you've talked about for ramping, how much --
10 how many hours you would have a problem if you brought that
11 pressure down. Do you understand my question?

12 MS. GIRIDHAR: If you could just give us a second.

13 [Witness panel confers]

14 MR. THALASSINOS: Sorry for the delay there. The
15 question was just not the way we design. We have an --

16 MR. POCH: I understand that.

17 MR. THALASSINOS: -- obligation to serve our
18 customers, and so we don't not build facilities for the
19 purpose of calling it an emergency a few years later. So
20 we design based on peak-day conditions so that we, even for
21 the peak hour of the year, we do not have an outage. So it
22 doesn't matter how many hours a year or how many times per
23 year would you lose tens of thousands of customers, so --

24 MR. POCH: I understand all that. And I should
25 clarify, for the purpose of the previous undertaking and
26 for the purpose of this question, I'm assuming this
27 scenario where we've got today's load, not no load growth,
28 first of all. But I'm not suggesting you plan on

1 interrupting customers. You can meet -- today you can meet
2 loads. Your only concern is the 37 percent, right?

3 MR. FERNANDES: Mr. Poch, this request would take a
4 certain amount of time and effort, and I don't believe it's
5 relevant, because we design to meet our firm commitments.

6 MR. POCH: I understand that. What I'm asking is,
7 today, today you can meet your firm commitments at
8 37 percent; correct?

9 MR. FERNANDES: That is correct.

10 MR. POCH: And if you have to reduce the 30 percent at
11 peak times today --

12 MR. FERNANDES: We cannot.

13 MR. POCH: You cannot. And I'm wondering, if you
14 interrupt today PEC and/or all your industrials -- there's
15 four industrials, I understand -- and you have your
16 interruptibles off, can you get down to 30 percent today?
17 That's the emergencies we're talking about.

18 [Witness panel confers]

19 MR. THALASSINOS: So we can't answer here the
20 specifics of that question. That we would have to take an
21 -- we would have to direct that question to Mr. Naczynski
22 in panel 2, and likely require some additional analysis.

23 So the -- I guess the other factor to consider here is
24 that when we are operating below 30 percent isn't always
25 our choice. So if the incidents of the summer, two
26 separate situations -- one, we had Don Valley flooding,
27 which required us to lower the operating pressures.
28 Secondly, we replaced a 750-metre section of line, which

1 required us to lower the operating pressures, and if that
2 was extended to the winter, like has happened and is
3 currently the situation on the Collingwood line and the
4 Cornwall line -- so this is not a hypothetical; these
5 situations can happen -- if those situations were to occur,
6 we would not be able to supply downtown Toronto, with or
7 without interruptibles.

8 MR. POCH: Yes, I understand that. I'm taking it a
9 step further. If that situation arises and you had to then
10 interrupt your PEC, your major load down there, would you
11 be able to meet your other load commitments?

12 MR. THALASSINOS: Yeah, I think we'll have to model
13 that.

14 MR. POCH: So let's get that, and let's get how many
15 hours a year.

16 MR. CASS: Excuse me, Madam Chair, but before an
17 undertaking is given -- I apologize for interrupting Mr.
18 Poch.

19 It's not at all clear to me how this is helpful to
20 anything, to model something that is clearly not how the
21 company designs the system. It's something that is being
22 premised on the basis, as I understand it, of an emergency.
23 If the Board thinks this is helpful, I don't want to stand
24 in the way of that, but it obviously requires some work and
25 it is a mystery me how this is going to help anything.

26 MR. POCH: Madam Chair, the situation is this. They
27 are currently running the system this way at 37 percent and
28 they have said they want to get it down to 30, precisely

1 for the situation where you have some emergency and you
2 need to do some welding.

3 So it seems to me quite logical that we say: Well,
4 how often does that situation arise? Mr. Chernick's
5 evidence suggests it's once in three years that -- for one
6 day it's happened, that they couldn't be at 30 percent
7 anyway. They'll correct us if that's wrong.

8 MR. FERNANDES: Actually, Mr. Poch, I think we've
9 stated that some of these events take a significant amount
10 of time to remediate.

11 MR. POCH: Perhaps I can finish talking to the Board
12 before you interrupt.

13 MR. FERNANDES: Okay.

14 MR. POCH: And if we're talking about the concern of
15 the coincidence that one day a year when you couldn't get
16 to 30 percent, and some event happening that requires them
17 to do some remedial work, and if there's a -- in that
18 extreme situation, you can simply interrupt one customer
19 and the problem's solved, then I think there's a serious
20 question before the Board whether it's appropriate to spend
21 half a billion dollars building a pipe.

22 So that's the theory of our case; it's central to the
23 theory of our case. I would ask the Board to allow that
24 undertaking.

25 MS. CHAPLIN: How much work is involved in responding
26 to this request?

27 MR. FERNANDES: It does require probably several
28 network analysis simulations to be run. Mr. Naczynski

1 would be the best person to answer exactly how much time
2 that would take. But it's not insignificant.

3 MS. CHAPLIN: One moment, please.

4 [Board Panel confers]

5 MS. CHAPLIN: So my understanding, from some of the
6 other undertakings, also will involve rerunning the
7 simulation model. So I guess I'm not understanding how
8 this request differs from some of the others which you sort
9 of more readily agreed to do.

10 MR. FERNANDES: Madam Chair, certainly we can
11 undertake to provide this. The thing that I would like to
12 point out that Portlands paid a significant -- tens
13 of millions dollars of --

14 MS. CHAPLIN: Mr. Fernandes, we've heard that
15 testimony.

16 MR. FERNANDES: Okay.

17 MS. CHAPLIN: You don't need to repeat it. We are
18 always listening.

19 MR. FERNANDES: So we can provide that undertaking if
20 the Board thinks it's valuable. But the sanctity of
21 contract on a firm customer, that's not something we would
22 plan.

23 MS. CHAPLIN: On the basis that this simulation is,
24 from what I'm hearing is the simulation that's being
25 requested here is not substantially different in the
26 magnitude of effort as other ones that you've been asked to
27 do and have agreed to do. So I think on that basis we will
28 take the undertaking.

1 You, of course, are free to add the additional
2 information that you feel is relevant in terms of the
3 limitations that you see in this scenario being realistic
4 or appropriate.

5 So we'll give that a number.

6 MR. MILLAR: J6.7.

7 **UNDERTAKING NO. J6.7: EGD TO PROVIDE MODEL SIMULATION**
8 **TO SHOW IF IT CAN REDUCE SMYS TO 30 PERCENT OR BELOW**
9 **TODAY IF IT INTERRUPTED PEC AND/OR ITS 4 INDUSTRIAL**
10 **CUSTOMERS; TO INCLUDE SCENARIOS SEGMENT A, EAST-WEST,**
11 **PORTION OF SEGMENT B.**

12 MR. POCH: Thank you, Madam Chair.

13 Just to make sure we don't lose the details, the
14 earlier interrogatory we were talking about, the two
15 scenarios with segment A and the east-west part of segment
16 B, and without. Because I take it -- correct me if I'm
17 wrong, gentlemen -- that having segment A and the east-west
18 portion of segment B would alter that dynamic and would
19 improve your pressure situation on the Don Valley line.
20 That, in and of itself, with the Buttonville regulation.

21 MR. FERNANDES: Yeah. I would have to assume that
22 having a source at Buttonville would have an impact, but
23 we'd have to run the system analysis model to --

24 MR. POCH: Thank you very much. Thank you, Madam
25 Chair.

26 I just have a couple of short questions other than
27 that.

28 I know you don't want to give individual loads. Can

1 you tell us the sum of the four industrial loads, in the
2 peak?

3 MR. FERNANDES: I believe that's on the record. We
4 could get you a reference, but that really is a question
5 for Mr. Naczynski on panel 2.

6 MR. POCH: Let's leave it. If it's on the record,
7 hopefully we can find that. Maybe off the record you can
8 point me to it.

9 I wanted to ask you -- there has been these concerns
10 expressed about supply reliability, upstream supply
11 reliability and transportation reliability and so on. A
12 lot of that -- from my understanding of the evidence -- a
13 lot of that turns on whether Energy East proceeds, whether
14 gas out west gets diverted to LNG on the west coast and so
15 on. If we were -- so I wanted to ask you to comment on the
16 concerns with respect to delaying any decision here,
17 perhaps for a couple of years.

18 It seems to me that the impacts -- you would still
19 want to address the station B situation, and I don't need
20 to hear your objections to our proposed solution to that.
21 Let's take that -- assume that we can deal with the station
22 B situation. What would be the cost and benefits of
23 delays? Correct me if I'm wrong. There would be this
24 debate about whether you are giving up gas supply savings
25 in the interim, and that's going to -- we'll deal with that
26 in the next panel, the TCPL panel; correct?

27 MR. FERNANDES: There would be the transportation
28 savings as outlined in the economic feasibility.

1 MR. POCH: We can have that debate another day.

2 MR. FERNANDES: There's a significant concern with
3 respect to availability of supply and the capacity
4 available to feed our franchise.

5 MR. POCH: That's exactly what I'm talking about. If
6 we delayed this until some of that uncertainty resolves --
7 because of course those are all big capital projects too,
8 which would have lead time and you would have sufficient
9 notice after a decision -- after decisions are made on
10 those so that you could still build whatever you need to
11 build here.

12 MR. FERNANDES: What has been contemplated by
13 TransCanada as part of their Energy East is that those
14 supply impacts would take place for the winter of 2015.

15 And I can point you to where the capacity impacts are
16 and we could quickly describe how it impacts not just the
17 Enbridge GTA, but our entire franchise and as a matter of
18 fact, the entire Eastern Ontario Triangle, if that would be
19 helpful to understand the capacity reductions.

20 MR. POCH: What I'm going to suggest is we defer that.
21 Feel free to comment at the end. I'm going to suggest we
22 defer than to the panel with TCPL present, because just
23 looking at the document that was filed -- I think it was
24 last night -- by Union, which is TCPL's tariff application,
25 it turns out there's some twists and turns in there in
26 terms of your ability to get long-term contracts and be
27 guaranteed in the event of Energy East and so on. I can
28 imagine this is something we're going to want to hear TCPL

1 on, and it would probably be helpful to hear you both at
2 once, so if that's okay.

3 Ms. Giridhar, are you going to be on that panel and be
4 able to speak to this?

5 MS. GIRIDHAR: I think what Mr. Fernandes would like
6 to take us through is actually TransCanada's responses to
7 EGD Interrogatories No. 2 and 3. They are really not the
8 subject of the term sheet, so I do believe this is the
9 appropriate panel to talk about those consequences. So we
10 would be happy to do that if we may, Mr. Poch.

11 MR. POCH: By all means.

12 MR. FERNANDES: So if we could turn up TCPL.EGD.2.

13 Now, overall I'm going start on page 4, but in very
14 quick summary what we asked TransCanada was an
15 understanding of what would happen today, in terms of
16 capacities in the future, if they were to take today's
17 current system and remediate all of their known integrity
18 issues and de-rations, and then the same two situations
19 with respect to what would happen if Energy East were to
20 proceed.

21 So I'm specifically going to look on the tables to the
22 northern Ontario line. And if we reference -- if we
23 remember the Eastern Ontario Triangle, in terms of a long-
24 haul path, supplying into that Eastern Ontario Triangle
25 comes in through North Bay on the northern Ontario line.

26 So if we look at -- I would take you to page 4. First
27 and foremost, I'll read a quote from here. They stated:

28 "The scenario where Energy East proceeds while

1 currently de-rated sections of line 2 remain out
2 of service is unreasonable, as currently de-rated
3 sections of line 2 are required with the Energy
4 East project and service. That data is provided
5 below."

6 So our future state where Energy East proceeds
7 requires remediation of what they call line 2. If we look
8 at the table on page 4, the northern Ontario line lists a
9 total capacity with loss of critical unit of 2,356.

10 If we compare that situation to today, which is the
11 response to A on page 3, the northern Ontario line
12 currently has a capacity of 3,154, and by my math that's a
13 reduction in the future of 794. Let's call it 800 for the
14 purposes of this conversation.

15 So in the situation where they remediate line 2, we're
16 going to lose 800 tJs of capacity coming into eastern
17 Ontario. If we compare now table A and B, which is today's
18 situation, and then the future situation of today with that
19 line remediated, you can take the 3,870 minus the 3,154,
20 and my math is 720 tJs.

21 So remediation of line 2 is about 700 tJs of capacity.
22 So essentially the situation that we're facing, in terms of
23 one of our major supply lines, is that we're looking at, by
24 2015, losing somewhere between 1,500 and 800 teraJoules a
25 day of capacity coming into the Eastern Ontario Triangle,
26 and that's a very significant amount of gas, a very
27 significant capacity, in terms of what the company needs to
28 consider for being able to supply gas to our customers.

1 And to get it down to the 800, I would like to take
2 you to TCPL No. 3, the next interrogatory. We can talk
3 about what that remediation is required. And we asked a
4 couple of basic questions first off -- and I apologize for
5 the folks looking for that. I'm specifically looking for
6 attachment 1 to EGD -- or, sorry, TCPL.EGD.3.

7 In the response to A in the actual interrogatory it
8 lists the three lines that make up the path coming in at
9 North Bay, and it lists their vintage and their size. They
10 have stated that line 3, which is the NPS 42, the most
11 recently built line is the one that they would take out of
12 service for oil conversion.

13 But if we look quickly at the attachment to understand
14 the scale of the remediation, what we asked, if you look at
15 the legend, for all intents and purposes they have legend
16 items for currently de-rated, scheduled for repair,
17 scheduled for de-rate.

18 But if we can quickly scroll through and look at the
19 segments, on line 2, essentially, if it's not a straight
20 line there's something that needs to be remediated.

21 And if you quickly flip through, there's a number of
22 pages looking at this on line 2. Now, these are segments,
23 so it's a schematic, but if we take a look at the map over
24 here, we're talking about basically the distance from
25 Emerson to North Bay, and when I look through visually,
26 approximately two-thirds of the segments require some form
27 of remediation.

28 So we're going in a situation where in the past we've

1 had three lines. In the future we're going to have two.
2 In the future those two lines are made up of one built in
3 1958 and another one that has approximately two-thirds of
4 it going back thousands of kilometres that have known
5 integrity issues.

6 So it is critical for us to take a look and evaluate
7 our supply lines in order to serve our customers.

8 MR. POCH: I had reviewed the material that Union
9 filed last day, the TCPL application for tariffs, and my
10 understanding is there's a specific provision that says if
11 they proceed with Energy East, Enbridge and the Eastern
12 Ontario Triangle shippers, including yourself, would have
13 the option of getting long-term contracts and locking up
14 capacities. Have I misread that?

15 MS. GIRIDHAR: Could you repeat that?

16 MR. POCH: That in the scenario where Energy East
17 proceeds, I thought that TCPL was explicit in their
18 proposal to the NEB that they would -- you would have the
19 opportunity to renew capacity contracts in a long-term
20 basis.

21 MS. GIRIDHAR: So there's two things there.

22 MR. POCH: For the long haul.

23 MS. GIRIDHAR: There's certainly the piece between
24 Emerson and North Bay, and then there is the impact east of
25 North Bay, so I'm not sure which in particular you are
26 referring to, because I don't have what Union filed
27 yesterday.

28 But the reality is I think what TransCanada has stated

1 is that significant remediation of line 2 is required as a
2 result of the Energy East project, assuming the demand is
3 the same, and we wouldn't have the option. We would
4 actually be required to sign up for ten years of service
5 for them to invest the kind of money they need for
6 remediating this line.

7 So in the context of being able to build 27 kilometres
8 of pipe and take supply from Marcellus and Dawn, where all
9 the new supply is, we would be looking at remediating a
10 line from the 1970s and, as a result of the remediation,
11 face the costs of remediation, but also a long-term
12 contract for ten years, tying us back to the Alberta basin,
13 where supply is declining at this point in time, and
14 certainly new exports are destined to Asia.

15 So it's -- while that may be true, I think you asked
16 us the question, what are the costs and benefits of
17 deferring those projects, and those are the costs.

18 MR. POCH: Right. And if you had to -- if you as --
19 in tolls would face some of the cost of remediation, the
20 other consequence is you would no longer be facing the
21 depreciation charges and maintenance of the line that's
22 switched over to oil; correct?

23 MS. GIRIDHAR: I think the -- in terms of the transfer
24 of assets to the Energy East project and the transfer price
25 and the resulting cost consequences, we've not been able to
26 come to agreement with TransCanada, so that is going to the
27 NEB.

28 MR. POCH: That's fine. And finally, I understand

1 that Enbridge and Union with DTE are sponsors of the NEXUS
2 project, which would move Marcellus gas up through Ohio,
3 Michigan, and into Dawn; is that right?

4 MS. GIRIDHAR: That would not be Enbridge Gas
5 distribution. That would be Enbridge Inc. --

6 MR. POCH: Right. And --

7 MS. GIRIDHAR: -- Spectra, and --

8 MR. POCH: Your shareholder.

9 MS. GIRIDHAR: Correct.

10 MR. POCH: Correct. Okay. Can you tell us, do your
11 shareholders have other interests in gas transportation or
12 development in these shale regions we're talking about, and
13 in the case of transportation from these shale regions?

14 MS. GIRIDHAR: I'm not aware that we have any
15 interests in the Marcellus basin.

16 MR. POCH: Thank you. Those are my questions.

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

18 Mr. Wolnik, does APPrO have questions?

19 MR. WOLNIK: We do. I think we were down for 25
20 minutes, and pleased to report that I'll be a little less
21 than that. But I -- because some of the questions that I
22 had planned for this panel I think were more appropriate
23 for panel 2, so if I could have some indulgence there as to
24 shift a few minutes.

25 And I also have filed a compendium and left copies
26 with Staff. So I wonder if we should have that marked as
27 an exhibit.

28 MR. MILLAR: K6.1.

1 In addition to get to the 800, there's a shift from
2 suction to discharge of an incremental 200 of existing
3 volumes. So the 600 shift comes over. The 600 plus an
4 incremental 200 is how we get to our 800 capacity on
5 segment A.

6 MR. WOLNIK: You talk about 600, but 200 is for future
7 growth, right?

8 MR. FERNANDES: So the there's 600 of existing volumes
9 that are being shifted, and then there's 200 of capability
10 within the distribution system for future growth.

11 MR. WOLNIK: So the 600 that's coming in today is all
12 coming in at Victoria Square today?

13 MR. FERNANDES: Likely.

14 MR. WOLNIK: Thank you. Now, in that shift from
15 Victoria Square to Parkway, then, and to segment A, that's
16 going to leave -- to use Mr. Brett's term -- empty pipe
17 between Victoria Square and Buttonville, I think; is that
18 right?

19 I know you didn't like the term "empty pipe," but it's
20 capacity that wouldn't be utilized after the shift.

21 MR. FERNANDES: It's difficult in a network
22 environment, but you could think of it that way. That
23 particular piece of pipe would have more capability, but
24 it's certainly not unutilized.

25 MR. WOLNIK: So it would be optionality that you would
26 have in the future, that if it made more sense in the
27 future to bring growth in at that location, you could do
28 that?

1 MS. GIRIDHAR: That is correct. So if you also look
2 at the term sheet that we have at TransCanada, we talk
3 about sourcing future growth through the TransCanada
4 Mainline.

5 So what that would mean is we max out at 800 at
6 Albion, and future growth that needs to feed downtown
7 Toronto would likely go up the TransCanada system and come
8 back down on Victoria Square -- at Victoria Square.

9 MR. WOLNIK: So in the long run you would still plan
10 to use that?

11 MS. GIRIDHAR: Correct.

12 MR. WOLNIK: That's helpful, then. Now, Ms. Giridhar,
13 you also talked about the diurnal need of the distribution
14 system because of the peaks, the two peaks during the
15 daytime. My understanding is that drives a lot of intraday
16 balancing; is that a fair statement?

17 MS. GIRIDHAR: That is correct, based on my
18 understanding.

19 MR. WOLNIK: Now that you are a gas control expert.
20 How do you meet those intraday needs? Does that
21 require additional capacity? Or is that embedded within
22 this 800,000 of additional capacity that you are adding?

23 [Witness panel confers]

24 MS. GIRIDHAR: Thank you. So the east-west portion of
25 segment B will be providing additional capability with
26 respect to managing line pack and meeting those swings.

27 MR. WOLNIK: Can you say how much that is? I'm trying
28 to really get down to the numbers here. How big is that

1 intraday balancing requirement?

2 MS. GIRIDHAR: I don't know the --

3 MR. WOLNIK: Is that a panel 2 question?

4 MS. GIRIDHAR: I don't know if it's panel 2 either. I
5 may need to ask gas control.

6 MR. WOLNIK: At some point, presumably, you have to
7 model the fact, and presumably on a transient basis, the
8 fact that you've got the swings throughout the day. And
9 those swings are going to take capacity out of the system
10 to be able to accommodate that.

11 So I'm assuming that that's -- you can model that.

12 MR. FERNANDES: I apologize, Mr. Wolnik, but the fact
13 that we design our system to meet peak hour means that all
14 of the other hours that I think you're referring to, there
15 is some level of capacity that's typically utilized in
16 order to meet that operational balancing.

17 What Ms. Giridhar was trying to describe was with the
18 east-west bottleneck. There are a few instances where we
19 have some services that have more nomination windows from
20 some of our suppliers and some of the contracts.

21 So having that flexibility to move gas across the
22 system allows us to more effectively utilize those extra
23 nomination windows and stay within our contractual limits.

24 Beyond that, I'm not sure that this panel knows the
25 level of detail that you are asking. But if there is a
26 more specific question, we would be happy to try and
27 respond through an undertaking.

28 MR. WOLNIK: Should I ask panel 2? I'm happy to do

1 that.

2 MR. FERNANDES: We could, or we could take it down and
3 try and make sure that we have the response available.

4 MR. WOLNIK: The question -- what I'm trying to get at
5 is, I guess: Currently and through to 2025, are you having
6 to reserve some of the capacity in the system to
7 accommodate the transient intraday balancing requirements?

8 Or I guess the alternative is -- I appreciate that
9 there are times of the day when you're using less capacity.
10 Or are those sufficient to handle all of the balancing
11 requirements?

12 MR. FERNANDES: I think what I can state, in our
13 system design criteria we do not explicitly take into
14 account intraday balancing. So it's not within the system
15 design criteria. It is a requirement of the system, but
16 it's not explicitly in our system design criteria.

17 MR. WOLNIK: That really what I was trying to
18 differentiate. When you do your system design criteria for
19 the peak hour, you do that on a steady-state basis, right?

20 MR. FERNANDES: That's correct.

21 MR. WOLNIK: When do you the system operational
22 requirements to accommodate all the balancing requirements,
23 that's a transient modelling; right?

24 MR. FERNANDES: If we were to model that, I believe we
25 would be doing it with a transient model. That's correct.

26 MR. WOLNIK: Well, maybe you can give panel 2 a heads-
27 up that I'll have that question for them.

28 MR. FENRNADES: Okay.

1 MR. WOLNIK: Thanks. That's helpful. I think I have
2 a better understanding of segment A now, so perhaps now
3 what we can do is talk a little bit about segment B.

4 And I think Mr. Naczynski was very clear when he was
5 up last time just in terms of how segment B is going to be
6 used.

7 And the east-west portion that I think Mr. Poch has
8 referred to as section B1, that was absolutely critical to
9 the supply strategy to shift that 600,000 gJs a day that
10 you've talked about from Victoria Square to the Parkway;
11 right?

12 MR. FERNANDES: That's correct. That's required to
13 get past the east-west bottleneck.

14 MR. WOLNIK: Great. Thanks.

15 Part of your overall proposal, we've had a lot of
16 discussion on lowering the operating pressure on the 26 and
17 the Don Valley line, and my understanding is the loss of
18 that capacity is 165 tJs a day; is that right?

19 MR. FERNANDES: We did have an interrogatory response
20 to that effect, but I just want to make sure that -- that
21 was measured at station B, and given the dynamics of a
22 network, it's not necessarily as directly comparable to,
23 for instance, the 600 tJs that we're shifting. It's
24 measured at a specific point in the network.

25 MR. WOLNIK: But you have to replace that pressure
26 loss, and I think -- it was BOMA 19(i), by the way.

27 MR. FERNANDES: You are correct. There is -- by
28 lowering the pressure in those pipelines, there's a

1 substantial reduction in the overall capacity or capability
2 of them to move gas throughout the system.

3 MR. WOLNIK: That's compendium page 5, by the way.

4 So I think -- I just wanted to clarify that that 165
5 is your estimate of loss of capacity from lowering the
6 pressure on a standalone basis in the system.

7 MR. FERNANDES: Yes. That's how we've tried to peel
8 it out of that network. Correct.

9 MR. WOLNIK: Okay. Thanks. And maybe I could turn to
10 page nine of the compendium, then, which is APPrO 1(i).
11 This talks about reserve capacity in the system, and that
12 reserve capacity in 2015 is 160 tJs a day, and then that
13 reduces to 130 tJs a day, I think, by 2025; right?

14 MR. FERNANDES: That is correct in the response, yes.

15 MR. WOLNIK: So can you tell me exactly what reserve
16 capacity is?

17 MR. FERNANDES: So reserve capacity in this sense is
18 capacity that is over and above your requirements. And I
19 think we stated specifically in this response it's a
20 function, or this capacity is a function of network
21 synergies being created.

22 I think where you're getting to is that, as part of
23 the proposed facilities, we knew we were contemplating
24 lowering pressure in older lines, but we also have an
25 existing 36-inch line that is very new, and our objective
26 was to ensure that we tie into that 36-inch pipeline that
27 was built, I believe, about five years ago, because if we
28 don't the consequence is that we lose more capacity,

1 because we were forced to lower the pressure not only in
2 the NPS 30 Don Valley line but also that section.

3 So there's a huge incremental capacity loss if you
4 take away even one metre on the north-south section, and
5 it's a consequence of, then you would be forced to lower
6 the pressure in more facilities which don't actually
7 require it.

8 MR. WOLNIK: I think I understand that. I still don't
9 understand how you are going to use reserve capacity. Are
10 you saying that it's just extra capacity that just happens
11 because you're just completing the system out? Is it for
12 future growth? Is it for flexibility to backfeed into the
13 downtown core?

14 [Witness panel confers]

15 MR. FERNANDES: I think what we're trying to describe
16 is that there's capacity over and above the requirement.
17 It's created simply as a result of completing the path.

18 MR. WOLNIK: Okay. So you have no plans on using that
19 capacity between, I guess, 2015 and 2025.

20 MR. FERNANDES: So we're utilizing the portion that we
21 have demand for.

22 MR. WOLNIK: And I'm asking about the rest of it. You
23 have no demand for it. This won't be utilized.

24 MR. FERNANDES: That will be utilized for the future,
25 and I'm sure we'll probably utilize some of that in
26 operational instances, but it would not be required as part
27 of a peak-day design scenario.

28 MR. WOLNIK: So that would be reserved for future

1 growth past 2025; is that fair?

2 MS. GIRIDHAR: To my simple mind, Mr. Wolnik, I
3 understand this as being an outcome of the lumpiness of
4 infrastructure additions.

5 MR. WOLNIK: And I understand that. Yeah, no, I
6 appreciate that. I thought what you are going to tell me
7 was, you know, because of the key tenets of flexibility,
8 diversity, and reliability, I think, were the key
9 touchstones you were using, that you would have the
10 flexibility, for instance, of serving downtown Toronto
11 operationally more from the east or west with that
12 flexibility. Is that the case, or...?

13 MR. FERNANDES: That is true. There will be more
14 capacity available on the system. The way we're modelling
15 it is more of a pressure balance. So again, in response to
16 the question that you're referring to, we were asked what
17 the capability of the system was under a design-day
18 condition. That's what it is.

19 Now, could we use that by pulling more gas down the
20 east end and less on the west end? Absolutely. That's
21 something that is technically feasible. But we were trying
22 to respond to the question that if we do a normal operating
23 simulation, what would it look like at a peak design-day
24 condition?

25 And as Ms. Giridhar stated, the fact that we complete
26 down and do not lower existing infrastructure that doesn't
27 require it, it creates a lumpiness in capacity, so that as
28 a consequence we do have capacity available, even with the

1 load growth that we've forecast.

2 MR. WOLNIK: Okay. Thank you. And what causes it to
3 drop from 160 to 130 by 2025?

4 MR. FERNANDES: That would be the forecast load
5 growth.

6 MR. WOLNIK: Okay. So can we turn to BOMA 25 now?
7 And that's not in the evidence. It's I.A1.EGD -- or,
8 sorry, not in the compendium. I.A1.EGD.BOMA.25. And (d),
9 sort of the response to (d) talks about the growth.

10 I may have the wrong reference. But just maybe while
11 we're on this table, I do have a question on this. The
12 capacity that you're adding here, I mean, I think this is a
13 table that shows the system capacity increases under
14 various temperature conditions; is that fair?

15 MR. FERNANDES: That's very fair.

16 MR. WOLNIK: And the first column shows -- and I'm just
17 going to focus on the top row, the 41 heating degree day.
18 I think that is your design temperature conditions. You
19 show a deficit of the 15,000 m³ per hour. And I think
20 that's the deficit you are trying to meet with this part of
21 this system growth requirement for 2015, right?

22 MR. FERNANDES: Correct.

23 MR. WOLNIK: And then the one -- the 210 is the extra
24 that sort of is there from 216 on. So the net increase is
25 the 225 per hour; right?

26 MR. FERNANDES: Yeah, that is correct.

27 MR. WOLNIK: Okay. And then that translates to 170
28 tJs a day, but I think we talked earlier about sort of the

1 reserve capacity being 160. Are those two intended to be
2 roughly the same? Am I missing something? Maybe with some
3 rounding here?

4 MR. FERNANDES: I think there was just probably
5 rounding differences in different models being run.

6 MR. WOLNIK: Okay.

7 MR. FERNANDES: So there, you know, there could be
8 some minor difference in the input assumptions that --

9 MR. WOLNIK: Okay. Fair enough.

10 MR. FERNANDES: They are intended to be more or less
11 the same.

12 MR. WOLNIK: Okay. I wonder if we could turn to
13 JT1.11.

14 MR. FERNANDES: Excuse me, Mr. Wolnik, is that in your
15 compendium?

16 MR. WOLNIK: Yes, I think it's up on the screen here
17 as well.

18 MR. FERNANDES: Okay. Sorry.

19 MR. WOLNIK: This -- the last line talks about by 2025
20 approximately 15 tJs a day of growth will be added to
21 station B. And again I'm just wondering, the numbers we
22 talked about earlier, in terms of the reserve capacity
23 shrinking from 160 to 130, for a difference of 30, again,
24 is that intended to relate to the market growth, and are
25 these numbers intended to be roughly the same? Or am I
26 missing something? And again, it may be rounding.

27 MR. FERNANDES: I'm trying to do my best to answer
28 your questions, but these ones really are for Mr.

1 Naczynski --

2 MR. WOLNIK: Fair enough. Fair enough. Okay.

3 On day four, panel, you had a discussion with Mr.
4 DeRose about Portlands Energy Centre, and why didn't you
5 build bigger facilities at the time that might have offset
6 the requirements to build which you have now.

7 Can you confirm that the facilities you did build for
8 Portlands restored the extra high pressure system to its
9 previous level of flexibility?

10 MR. FERNANDES: Yes, we can.

11 MR. WOLNIK: Okay. Thank you. And there has been a
12 fair bit of discussion today about Portlands and whether it
13 should be converted to an interruptible or some form of
14 curtailable load. Would you agree with me that the firm
15 capacity contracted by PEC is as firm as any other
16 customer's firm capacity?

17 MR. FERNANDES: Absolutely. We've stated that they
18 have a 20-year contract, and we believe in the sanctity of
19 that contract.

20 MR. WOLNIK: Good. And I think you've also indicated
21 before that if there was a force majeure condition you'd
22 have the right to curtail that load; is that right?

23 MR. FERNANDES: I believe that is under any contract
24 you can do force majeure, but that's not something that you
25 would plan or design your system for by any means
26 whatsoever.

27 MR. WOLNIK: So if it was a foreseeable event, that
28 wouldn't, I guess, qualify as an event of force majeure,

1 then?

2 MR. FERNANDES: Anything that we believe would be
3 foreseeable, we believe we would have an obligation to try
4 and avoid. You know, a firm contract means firm. I don't
5 know.

6 MR. WOLNIK: So if you --

7 MR. FERNANDES: We have design criteria, but that
8 aren't specifically intended to ensure that we can deliver
9 firm.

10 MR. WOLNIK: So what --

11 MS. GIRIDHAR: Sorry, I just did want to clarify that.
12 You may be able to foresee things, but they need to be part
13 of the design criteria for you to incorporate them.

14 MR. WOLNIK: Right. Fair enough. I agree with that.

15 It sounds to me like this is an older line and you
16 know you've had operating problems with it. So it is
17 foreseeable you that may have to lower the pressure from
18 time to time, including on design day?

19 MR. FERNANDES: That's one of the reasons why we're
20 proposing these facilities.

21 MR. WOLNIK: Thank you. Shifting gears slightly, if
22 the Board didn't approve the required capacity to
23 accommodate new customer growth, then I presume you would
24 just refuse to take on new customers, again to prevent that
25 situation of being in a situation where the pressures went
26 below design conditions?

27 MS. GIRIDHAR: We do have an obligation to serve, so
28 we would have to come back with another set of facilities

1 in order to serve our customers. But the notion that we
2 would reduce reliability to current customers in order to
3 serve new customers, I believe we would not plan on that
4 basis.

5 MR. WOLNIK: Thank you. Now, if an event of force
6 majeure did occur, I think Enbridge has indicated in the
7 past -- and I don't remember exactly when -- that you would
8 curtail Portlands first. And I think the logic is with one
9 twist of the wrist, you've shed 100,000 gJs a day of load
10 off the system; right?

11 MS. GIRIDHAR: Certainly from the -- this, I do know
12 from gas control, that from the perspective of maintaining
13 the system, that would be the first step that they would
14 consider.

15 MR. WOLNIK: And PEC doesn't get a discount for being
16 first off?

17 MS. GIRIDHAR: I don't believe they do.

18 MR. WOLNIK: Okay. Thank you. So the firm capacity
19 isn't perhaps quite as equal as everybody else's,
20 because --

21 MS. GIRIDHAR: I think when it comes to an operating
22 condition or an emergency condition, gas control is
23 authorized to take the actions that it needs to, to
24 preserve the system. But I will let more technical people
25 talk to it.

26 MR. FERNANDES: And there are criteria in terms of
27 when we can't meet firm load. I think we can speak to
28 that.

1 But typically we would do residential customers last,
2 so there is an order. It's not a choice per se. We would
3 go through a prescribed program of who we would attempt to
4 shed first.

5 [Witness panel confers]

6 MR. THALASSINOS: So yes. In emergency conditions, we
7 do have a criteria by which we would shed our loads, and
8 industrial customers are -- interruptible customers are
9 first, and then progressing from there to industrial
10 customers and eventually down to residential customers.

11 MR. WOLNIK: Thank you. Just coming back to this 20-
12 year contract with PEC, would you agree with me that if
13 there were to be any changes to that contract, they would
14 have to be negotiated between the parties?

15 MR. FERNANDES: Absolutely. It's a 20-year contract,
16 which Portlands paid tens of millions of dollars'
17 contribution in aid of construction in order to receive
18 firm service for 20 years.

19 So any type of change to that would -- I mean, it was
20 a two-party agreement -- I would assume would have to have
21 both parties agreeing.

22 MR. WOLNIK: Good. Thank you. Those are my
23 questions, Madam Chair.

24 MS. CHAPLIN: Thank you.

25 Dr. Higgin, Energy Probe has some questions, I
26 believe? Fifteen minutes, as I understand it?

27 DR. HIGGIN: That's correct.

28 MS. CHAPLIN: Thank you.

1 **CROSS-EXAMINATION BY DR. HIGGIN:**

2 DR. HIGGIN: Good afternoon, panel. Roger Higgin for
3 Energy Probe. I just would like to start by picking up a
4 loose end here that was related to the BOMA 25. That's
5 I.A1.EGD.BOMA 25 which was just put up. I want to look at
6 the attachment 2, please.

7 Just while this is coming up, I just wanted to see --
8 because I couldn't find it -- if there was an update to
9 this schedule in the evidence, because basically I was
10 looking for the new with the -- new Parkway West, the
11 pressures and degree day volumes on the system map. And I
12 couldn't find it.

13 So that's a question: Is there one, and if -- could
14 you point me to it? Of if not, could you do an update?

15 MR. FERNANDES: I can tell you I don't believe there
16 is an update showing Parkway West, but for all intents and
17 purposes I can tell you that the -- drawing the line back
18 to Parkway West, the only portion that will change is
19 having that line come back, because of the fixed volumes of
20 the 800 teraJoules per day on that line.

21 DR. HIGGIN: That's the question, because I'm
22 interested in the pressures, set points, and peak volumes.
23 And right now there is nothing shown for what was Bram West
24 or the new point. That's the issue that I'm having, is I
25 can't find those data, which are there for all of the other
26 pieces of the system on this map, obviously. So I'm
27 looking for those data, and trying to understand -- as
28 we've just discussed -- the shift from Victoria Park (sic),

1 et cetera, all of those things. And I'm looking for that,
2 so...

3 MR. FERNANDES: We can provide an update, but I can
4 respond to some of the answer right now.

5 We're designing the system to the currently prevailing
6 outlet pressure at Parkway, which is 935 PSI.

7 DR. HIGGIN: I'm just going to go there in a minute,
8 as you will know. So thank you. If you could have an
9 undertaking to update attachment 2 to 1A.1.EGD.BOMA 25,
10 that would be helpful.

11 MR. MILLAR: J6.8.

12 **UNDERTAKING NO. J6.8: EGD TO UPDATE MAP OF 2015**
13 **OPERATING SYSTEM WITH NEW FACILITIES, WITH REFERENCE**
14 **TO EXHIBIT I.AI.EGD.BOMA.25, ATTACHMENT 2.**

15 DR. HIGGIN: So having got past that, we now want to
16 talk about the transmission line or the Albion pipeline.
17 Perhaps we could just go as a segue in here, look at and
18 pull up Exhibit E, tab 1, schedule 1, page 1 and
19 paragraph 2. This is a way into my questions.

20 So as that is coming up, I don't think I need to read
21 it in detail, but it basically says the assets to be used
22 for transportation purposes will be the Albion pipeline,
23 for the purpose -- and this is very key -- the economics
24 and rate methodology in Exhibit E, in order to distinguish
25 them from the assets that will be used for providing
26 distribution services.

27 So that's where I'm going. And basically last night I
28 made an attempt to put a comparison table together. and I

1 sent it to your counsel and so on last night. And I would
2 like to start by pulling that up, if we could, please.

3 MR. MILLAR: Madam Chair, we can give this a new
4 exhibit number. It's K6.2, which is an Energy Probe
5 summary table of segment A.

6 **EXHIBIT K6.2: ENERGY PROBE SUMMARY TABLE OF**
7 **SEGMENT A.**

8 DR. HIGGIN: Thank you. So apart from our obvious
9 mistakes, like leaving out thousands in capacity and other
10 things like that when I was doing it, I wonder if I could
11 ask you not to do it now, but to confirm these data for me
12 by an undertaking and add any comments and so on that you
13 may wish to add. That would be very helpful.

14 MR. FERNANDES: We certainly will undertake to do
15 that. But directionally, everything looks pretty good,
16 with the exception of the three orders of magnitude of the
17 numbers.

18 DR. HIGGIN: Yes. I noticed that myself. I got my Gs
19 and my Ts mixed up. Sorry.

20 MR. MILLAR: If it's an undertaking, it's J6.9.

21 **UNDERTAKING NO. J6.9: EGD TO MAKE CORRECTIONS AND**
22 **COMMENTS ON ENERGY PROBE TABLE K6.2.**

23 DR. HIGGIN: Thank you. So just following up, then,
24 on that, I have a couple of questions. Where I'm going,
25 just so in case you would like to understand my framework
26 here, I'm looking at the concerns about rate impacts in the
27 -- particularly in the transition period from in-service to
28 full utilization of segment A, okay? That's the context.

1 Now, we know for a reinforcement part -- that's the
2 distribution -- then the guidelines are quite clear. You
3 use ten years' forecast and so on. And so therefore I'm
4 sure you could add one-tenth per year to the growth, or --
5 but for the transmission one, I believe the evidence at the
6 moment is less clear as to what volumes are going to flow
7 when and in what years. That's my problem.

8 I know there has been a lot of discussion about that,
9 and it's due to upstream facilities, downstream facilities,
10 et cetera.

11 MS. GIRIDHAR: Yes, I think what the record does show
12 is that the exact year in which market access might be
13 provided to downstream markets is subject to NEB approval,
14 and therefore is not as definite as the distribution need.
15 We think it would be 2015. It could be 2016.

16 But it is also true that under the methodology we are
17 proposing, as long as there was theoretically one tJ of
18 transmission capacity that was flowing, that it would
19 automatically attract 60 percent of the revenue requirement
20 of that line.

21 DR. HIGGIN: We'll let the shipper argue with you
22 about that, okay?

23 MS. GIRIDHAR: That is the methodology.

24 DR. HIGGIN: I somehow don't think that is going to
25 happen, but that's -- anyway.

26 So what I would like to do, just to keep my
27 information correct, is, can you provide a summary schedule
28 that shows a breakdown of the eastbound segment A

1 distribution and transmission peak requirements from
2 Parkway West to Albion for the period 2015-16 to 2019-20,
3 and include any notes about the pathways and flows and so
4 on? So that would be very helpful if you could put that
5 schedule by year for those years.

6 So that's distribution. You can make whatever
7 assumptions you wish in coming up with those peak-day
8 requirements or volumes.

9 MS. GIRIDHAR: So Dr. Higgin, I'm less concerned about
10 the distribution. What assumptions would you like us to
11 make on the transmission?

12 DR. HIGGIN: What you think is your best assumptions
13 with respect to when those volumes are going to flow,
14 consistent with your evidence. That's -- I'm not putting a
15 straw man or whatever to that.

16 MS. GIRIDHAR: So just to clarify, we do have the
17 open-season results for 2016 and -- 2015 and 2016, pardon
18 me, so we could use those assumptions. And in that
19 scenario we would essentially hold the peak-day constant
20 post-2016.

21 I would like to note, however, that under the terms
22 sheet TransCanada will be conducting its own open season,
23 and at that point we would have more information, in terms
24 of what the transmission build-out is likely to be over the
25 next six years.

26 DR. HIGGIN: Right. So for the transmission piece,
27 above the 760 for shippers, then you could make assumptions
28 or not regarding that open season and what would that do to

1 the volumes in those years, if you wish. That's certainly
2 an assumption. If you think that's a reasonable scenario,
3 I'm happy with that.

4 MS. GIRIDHAR: We could certainly do it on that basis.

5 DR. HIGGIN: Right. Thank you. So --

6 MR. MILLAR: J6 --

7 DR. HIGGIN: -- I don't want to try and describe it,
8 but I hope the record will be clear.

9 MS. CHAPLIN: Dr. Higgin.

10 MR. MILLAR: It's J6.10.

11 DR. HIGGIN: Thank you.

12 **UNDERTAKING NO. J6.10: EGD TO PROVIDE SUMMARY**
13 **SCHEDULE OF BREAKDOWN ON SEGMENT A OF PEAK**
14 **REQUIREMENTS FOR DISTRIBUTION AND TRANSMISSION FROM**
15 **2015-16 TO 2019-20 BY YEAR.**

16 DR. HIGGIN: So I just have one thing that's related
17 to that, and that is that I really can't quite understand
18 why you need the 170 gJs a day -- thousand, sorry -- for
19 its -- your eastern delivery area in 2015-16 when you
20 already have capacity on that line below your distribution
21 requirements. That's what I'm trying to understand.

22 So your distribution requirements in 2015-16, my
23 understanding, is 400 or 600, depending on whether you are
24 getting gas coming through the TransCanada route to
25 Parkway.

26 So that's the 200 spare, which is growth. Why do you
27 need the capacity, any capacity, in those years for the
28 170, or you are just going to use that capacity for that

1 170?

2 MS. GIRIDHAR: So we are defining distribution
3 capacity as being distribution capacity that's directly
4 feeding into the GTA project influence area. And the 170
5 that I'm talking about is capacity that's destined for our
6 Ottawa market. And as I had indicated earlier, those
7 volumes are treated identical to the transmission volumes
8 that any other shipper might require, because they need the
9 exact same facilities as other downstream shippers. So
10 from the perspective of equity and fairness, our
11 transmission volumes are like anybody else's transmission
12 volumes.

13 And if I may also back up to what was stated earlier,
14 we do expect on peak day that we would be flowing the full
15 800 tJs to Albion for further flows into our distribution
16 system here in the GTA, which is why we need an extra 170
17 over and above the 800.

18 DR. HIGGIN: Peak-day design day, you said for
19 distribution purposes 2015-16 is 600.

20 MS. GIRIDHAR: So we will not be having upstream
21 arrangements for growth in 2015/2016.

22 DR. HIGGIN: Correct.

23 MS. GIRIDHAR: However, the physical flow on segment A
24 from Parkway to Albion will likely be 800 tJs. And that is
25 because of the change in the arrangement from the suction
26 side to the compression -- to the discharge side of the
27 compressor.

28 DR. HIGGIN: Yes, I understand that. Okay. Thank

1 you.

2 I just have a couple questions on the LCU. That's the
3 433 application. And the first question is
4 straightforward. Did EGD actually request LCU from Union?
5 And if so, can you provide some details regarding the
6 timing and so on of that request?

7 [Witness panel confers]

8 MR. FERNANDES: So part of our consultation with
9 Union, we had an overall reliability task force to look at
10 that supply line, as the basis of this project is primarily
11 reliability-related, and I believe that has been provided
12 on the record in CME 5, in terms of the attachment to the
13 presentations that were reviewed with Union.

14 I don't believe we specifically requested LCU, but as
15 part of that reliability task force when we were looking at
16 different supply lines one of our primary concerns was
17 reliability, and that was where we became aware of the LCU
18 issue. I believe Union was already planning that at that
19 point in time, but our awareness became higher.

20 DR. HIGGIN: So you are saying it was partly because
21 you were looking at these projects and the incremental
22 requirements that were now on the horizon for your segment
23 A and segment B? Is that what you are saying?

24 MS. GIRIDHAR: If I might just add to that. My
25 recollection of those discussions were, as Mr. Fernandes
26 said, primarily reliability-related, and, you know, the
27 starting point was the concern around the concentration of
28 volumes coming in from our Parkway station.

1 And in discussing how we might mitigate that situation
2 -- and it became clear to us that there wasn't an effective
3 way of mitigating it -- we also became aware that there was
4 a risk to our short-haul supplies that were then moving on
5 from the Union system on to TransCanada's system because of
6 a lack of LCU at Parkway.

7 So what that meant to us is there were two independent
8 risks that pretty much covered all of the supply into the
9 GTA, and that's how the awareness about the need for LCU
10 actually first came about -- that's my recollection -- and
11 then it progressed from there.

12 DR. HIGGIN: Thank you. As the major customer for
13 Dawn-Parkway and 12C1 service, are you concerned about the
14 220 million cost of the LCU?

15 [Witness panel confers]

16 MS. GIRIDHAR: So, Mr. Higgin, our concern is
17 primarily the reliability of supply, but I would just note
18 that the cost of the LCU is reflected in Union's projected
19 M12 rates, and were used in order to derive the economic
20 benefits of the GTA project.

21 Certainly that does not reflect the entire
22 \$220 million. However, all downstream customers would seek
23 that same level of reliability.

24 But certainly the impact on Enbridge was incorporated
25 into our feasibility analysis.

26 DR. HIGGIN: Could you just point me to that, or
27 provide it? And that is, looking at the M12 C1 rates --
28 and perhaps we can reference the JT2.16, table A1, which

1 talks about all of the tolls including the Parkway -- Dawn-
2 to-Parkway.

3 So what I would like to understand is exactly what is
4 that cost in terms of, for the LCU only, the increase in
5 M12 C1 rates. And using the charge determinants that will
6 occur in 2015-16, based on your new pathways and volumes,
7 what the -- so I would like to understand what those costs
8 would be for that year, that rate year in millions of
9 dollars. So could you provide that for me, please?

10 MR. DENOMY: We could provide it for you. We don't
11 have it handy at this point in time, so we would have to
12 undertake to do it.

13 DR. HIGGIN: Do you understand what I'm asking? And
14 that is to take the toll portion change related to LCU,
15 multiply by the charge determinants for EGD volumes in
16 2015, and then come up with the annual cost of the LCU,
17 please.

18 MS. GIRIDHAR: If I may, I think there may -- if this
19 answer would be satisfactory to you, I think we did
20 calculate what proportion of Union's total M12 revenues is
21 EGD's share. And I believe we came up with 48 percent, or
22 thereabouts, so just around 50 percent.

23 So I think as a proxy, if you were to look at the
24 annual revenue requirement arising from the LCU, we would
25 be approximately 50 percent of that number.

26 DR. HIGGIN: The main thing is I want to make sure
27 that that is the number that has been put into your
28 economic analysis. That's the linkage here. I'm going to

1 the economic analysis. You just said in your earlier
2 answer that that was taken into account. That's where I'm
3 going with it.

4 MS. GIRIDHAR: I think the LCU benefits are not only
5 for the GTA project and the incremental volumes that we're
6 looking at; it is a system-wide benefit. So I'm not sure
7 that I would agree that all of those costs should be
8 reflected just on the --

9 DR. HIGGIN: No, I didn't say that. That's an
10 assumption.

11 You said they were taken into account in doing the
12 economic analysis, so that's what I would like to -- where
13 I'm going. So anything -- caveats you would like to add in
14 terms of how you link that answer to the economic analysis,
15 that would be helpful.

16 [Witness panel confers]

17 MR. DENOMY: So we'll provide that undertaking for
18 you.

19 DR. HIGGIN: Thank you.

20 MR. MILLAR: J6.11.

21 **UNDERTAKING NO. J6.11: EGD TO PROVIDE IMPACTS AND**
22 **AMOUNTS OF LCU ON M12 RATES ON AN ANNUAL BASIS.**

23 DR. HIGGIN: Those are my questions. Thank you, Madam
24 Chair.

25 MS. CHAPLIN: Thank you. Mr. Quinn, do you have
26 questions?

27 MR. QUINN: Yes, I do.

28 MS. CHAPLIN: And you expect to be 10 minutes?

1 MR. QUINN: Approximately, yes.

2 MS. CHAPLIN: Just one moment, please.

3 Mr. Millar, does Staff have some questions?

4 MR. MILLAR: Perhaps two or three minutes' worth.

5 MS. CHAPLIN: All right. Are there any other parties?

6 Mr. Crane?

7 MR. CRANE: IGUA does have a few questions.

8 MS. CHAPLIN: How long?

9 MR. CRANE: I was down for five minutes. It may be
10 10, Madam Chair.

11 MS. CHAPLIN: Go ahead, Mr. Quinn.

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

13 MR. QUINN: Thank you. I want to extend some of the
14 discussion that Dr. Higgin was having with the panel, but I
15 want to take a step back first.

16 Just to confirm my understanding, under the original
17 design of this project that was filed in the original
18 application, the 40-60 split between distribution and
19 transmission on segment A, that was basically because
20 Enbridge was getting 800 tJs and TCPL was getting 1,200
21 tJs; is that correct?

22 MR. FERNANDES: That's correct.

23 MR. QUINN: Thank you. Now, one of the parts that I
24 have not been able to find -- and possibly you could do
25 this by undertaking -- is just to provide a reference,
26 because I went through your updated evidence and maybe I've
27 missed it. But could you provide the incremental cost of
28 going from Bram back to Parkway as the starting point for

1 segment A?

2 MR. FERNANDES: I can provide you the reference.
3 There's a confidential version filed, but even if you look
4 at the redacted version I think it shows the total of what
5 you are looking for.

6 Exhibit I.A3.EGDupdate.CCC.30 has a comparison of
7 several of them, with the explanation broken out, and in --
8 one of them shows the Parkway West and one of them shows
9 the Bram West interconnection.

10 So we've got 686 -- I've got an eye chart, so excuse
11 me if I can't read it correctly. 1,686.5, and then the
12 previous was 623.7.

13 MR. QUINN: So that's the only difference, would be
14 the incremental costs going back to Parkway West as the
15 starting point?

16 MR. FERNANDES: I believe that's what you are looking
17 for.

18 MR. QUINN: Okay. So it conforms with my challenge.
19 I couldn't see an explicit statement of it. You are
20 getting it from the math in your economics, and I think we
21 can do the math in parallel with you.

22 So now we come to today, and you've got a -- obviously
23 a settlement with TransCanada, and we're encouraged by
24 that. But could you provide me the reason why you would
25 not go back to Bram as the starting point for the segment
26 A?

27 MR. FERNANDES: There are several reasons. First and
28 foremost there's a toll offset, which I believe if you look

1 at I.A3.EGDupdate.Staff.1 we had as \$26.3 million per year.
2 So there's an offset of that capital cost with the toll
3 that our customers would be paying with respect to -- to
4 TransCanada.

5 MR. QUINN: I had that in the reference that I had
6 from TransCanada when they gave me that answer back also.

7 But fundamentally under your new term sheet, would
8 those foregone revenues that Enbridge was going pay to
9 TransCanada, would they not going into the calculation of
10 the underrecovery, which would ultimately form part of the
11 surcharge for the Eastern Ontario Triangle?

12 MR. FERNANDES: There were other reasons. So I was
13 going to get to those.

14 MR. QUINN: I would like to stop with that, because
15 that was one of the main ones that I would like to focus on
16 for the purposes of my few minutes of examination.

17 Is my presumption correct that the 26 million would
18 then form part of the underrecovery of the Eastern Ontario
19 Triangle?

20 MS. GIRIDHAR: It is correct that the 26 -- to the
21 extent that we are seeking to recover all the costs of the
22 Eastern Triangle through tolls, that any payments not made
23 by Enbridge Gas Distribution for between Parkway and Bram
24 West are borne by all shippers, including Enbridge, in the
25 form of a different level of tolls.

26 MR. QUINN: So said differently, all of eastern
27 Ontario will pay for that foregone 26 million?

28 MS. GIRIDHAR: I think we need to look at it in a

1 different -- if you want to go talk about that particular
2 issue, we are talking about a total revenue requirement
3 that needs to be recovered from TransCanada, from its
4 shippers based on billing determinants. So it would be
5 true of any unit of volume to the extent that one shipper
6 took an extra gigaJoule of volume that would allow other
7 shippers to pay less in their tolls.

8 MR. QUINN: Maybe just to create focus so that we
9 don't get into a long debate here, specifically the
10 question I'm asking is the difference between starting
11 segment A at Parkway West or Bram.

12 So the under-recovery that would result -- the
13 TransCanada's forgone revenues of 26 million -- would form
14 part of that under-recovery. I think I heard the answer
15 was yes?

16 MR. FERNANDES: That is correct, but there are other
17 impacts directly associated with being connected at Bram
18 West.

19 MR. QUINN: Well, given the time we have, would you
20 accept an undertaking to quantify those additional
21 benefits, to outline them and to quantify the benefits to
22 ratepayers of what you are doing?

23 MR. FERNANDES: Well, I can describe them right now.

24 MR. QUINN: Can you quantify?

25 MR. FERNANDES: The other impact of taking gas at Bram
26 West is that incremental volume flowing on TransCanada
27 system reduces the pressure at that particular point in
28 their existing Parkway-to-Maple path, and therefore it has

1 an impact of actually lowering the capacity that their
2 existing customers are using on that transportation path.

3 So there's, you know -- the path from Parkway to Maple
4 is under demand. It requires capacity to be built out. If
5 we connect at Bram West, it's going to lower the capacity
6 on the existing system, and in order to make up for that
7 there's, you know, potentially more facilities needed
8 downstream of Albion.

9 So on a path that's being built out there's really no
10 -- it's not redundant capacity in any way, shape, or form.
11 If you look at the 26 million being in under-recovery, you
12 also have to look at the loss on their existing path and
13 what those tolls will be.

14 MR. QUINN: So in other words there is incremental
15 transmission capacity that's created by you tying in at
16 Parkway West, as opposed to Bram; is that correct?

17 MR. FERNANDES: And the way -- it's correct, but it's
18 actually -- it avoids a reduction on TransCanada's existing
19 system, so we don't see it on our side. But if we were to
20 pull the volume it would have an impact that would reduce
21 their existing Parkway-to-Maple path.

22 MR. QUINN: Or transmission capacity.

23 MR. FERNANDES: Or transmission capacity.

24 MR. QUINN: Okay. Well, then what I would like, now
25 that we have the incremental cost quantified, could you --
26 and possibly this is an extension of Dr. Higgin's
27 undertaking or a new undertaking -- but to look at what the
28 rate impacts would be if you did Bram to Albion at the 40-

1 60 split and 100 percent of the cost of Parkway to Bram as
2 transmission capacity to quantify your rate 332, so we have
3 a sensitivity on what a different methodology for your rate
4 332 would provide to us as recovery from those who would
5 benefit from transmission capacity.

6 MS. GIRIDHAR: Mr. Quinn, we wouldn't necessarily
7 agree that that's the suitable way to do the rate
8 methodology, but if you are requesting that mathematical
9 information, we can provide it.

10 MR. QUINN: And I think we can leave that as a
11 difference of perspective, but I appreciate your
12 willingness to quantify the impact. Thank you.

13 MR. MILLAR: J6.12.

14 **UNDERTAKING NO. J6.12: EGD TO PROVIDE RATE IMPACTS ON**
15 **RATE 332 TRANSMISSION CUSTOMERS OF DIFFERENT SCENARIOS**
16 **OUTLINED BY FRPD RELATED TO BRAMPTON WEST START POINT**
17 **OF SEGMENT A.**

18 MR. QUINN: The other area I wanted to speak to -- and
19 I didn't provide a compendium, because there's just one,
20 and possibly two references to bring up, and I had provided
21 the references to Enbridge staff -- is JT1.8. And this is
22 more to the technical side of the equation.

23 So there are a few pages wherein Enbridge staff
24 provide us undertakings, and I just want to be able to, as
25 opposed to going through the three pages, summarize my
26 understanding, and then ask the question from there.

27 But in my reading of Enbridge has provided some sound
28 engineering reasons why 480 is the hard cap on the pressure

1 out of Vic Square. It's actually 42. But I can accept
2 that you have a hard cap of the pressure coming out of Vic
3 Square, based upon your analysis. Is that correct?

4 MR. THALASSINOS: That's correct.

5 MR. QUINN: Okay. Thank you. So given the reasons
6 that's already -- that are imbedded in that undertaking
7 response, you've also said that environmental and
8 socioeconomic conditions basically preclude you putting in
9 full relief-valve design, so the prudent choice is an
10 operator-monitor set of regulators, as depicted on page 3;
11 is that correct also?

12 MR. THALASSINOS: That's correct.

13 MR. QUINN: And then flowing from that, because it's
14 operator-monitor, you require a 30-pound differential
15 across the regulator sets to account for volatility in
16 those regulators.

17 MR. THALASSINOS: And other factors, but, yes.

18 MR. QUINN: Okay. Thank you. I'm just trying to make
19 sure we cover the three pages and three sentences there.

20 So my question for you then is -- and I understand you
21 don't want to look at raising pressure alternatives, but
22 I'll be talking to your panel tomorrow about what some of
23 those things might look like.

24 But from my technical, engineering point of view, have
25 you assessed what the possibilities would be to put in
26 control valves using globe or butterfly valves and what the
27 resulting pressure drop would be if you put in more precise
28 regulation?

1 MR. THALASSINOS: No.

2 MR. QUINN: Okay. Would you undertake to review what
3 could be done with improved regulators, what the cost would
4 be, and what the resulting differential would be relative
5 to the 30 pounds that has been specified?

6 MR. THALASSINOS: We could, but I would like to point
7 out that the settings here and 30-pound differential is not
8 based on the maximum capabilities of our equipment. We
9 have a, as you noted, a hard cap, in terms of our upper
10 limit, our maximum operating pressure. We have a set point
11 pressure, which is 30 pounds below that, which we feel
12 gives us the capability to not only operate the equipment
13 as it's currently configured, but also gives us the ability
14 to respond to upset conditions.

15 So if -- so, for example, if your regulators are of a
16 greater capability in terms of their -- the pressure
17 differential, versus the cap, it gives you less ability to
18 handle upset conditions, which would increase risk, and
19 that's not something we're prepared to do.

20 MR. QUINN: Okay. And we went into this just briefly
21 at the technical conference, and I suggested you and I
22 could go and have a coffee and talk regulators. But for
23 the purposes of this panel I don't think they would be that
24 interested.

25 Would you agree with me that control valves can
26 provide a lower differential to pass through the same
27 quantity of gas; in other words, having a higher set
28 pressure than traditional regulators?

1 MR. THALASSINOS: There are regulators that can
2 provide a lower tolerance of operation, but they would not
3 necessarily count for either upset conditions, such as if
4 there was debris in the line or freezing the line. It
5 would not give you the ability to respond before you
6 exceeded your hard-cap maximum operating pressure.

7 MR. QUINN: And that's why a remote-controlled control
8 valve could provide you that level of assurance?

9 MR. THALASSINOS: Not necessarily.

10 MR. QUINN: Well, okay. Let me ask the question this
11 way. Would you undertake to review your current regulators
12 that you have in place and look at an alternative to
13 provide a lower differential regulator setup -- it could
14 either be a regulator control valve, whatever would fall
15 into your comfort level -- and tell me what the maximum
16 outlet pressure that could be achieved with an improved
17 pressure control system and what the cost of that would be?

18 MR. THALASSINOS: So if the question -- I think you
19 started your question by saying would we be comfortable
20 doing that, and the answer is no. Are there regulators
21 that are -- have potentially greater capability? Yes,
22 there are. And we...

23 MR. QUINN: Okay. So I guess if I use the word
24 "comfortable" I'm going to ask you, could you calculate an
25 improved pressure control system starts at 480 in -- sorry,
26 using the hard cap of 480, what pressure control system you
27 could put in place that would allow you to have a comfort
28 to increase your outlet pressure beyond 450? What would

1 that pressure be, and what would the cost of that station
2 upgrade cost be?

3 [Witness panel confers]

4 MR. THALASSINOS: Okay. So again, it is possible to
5 do that calculation or analysis. Having said that, you
6 know, our regulators here do have a high degree of
7 accuracy, and that is not what is having our set-point
8 differential of 30 pounds. It's more than that.

9 So for example, if -- regardless of the accuracy of
10 the equipment, if there were to be any malfunction of the
11 equipment, regardless of what type of controls you might
12 have or think you might have, they may not necessarily be
13 available in an upset condition.

14 MR. QUINN: I'm asking you to undertake to review what
15 could be done, what the costs would be, and what the
16 resulting outlet pressure could be established at.

17 Are you able to do that?

18 MR. THALASSINOS: Yes.

19 MR. QUINN: Thank you. And I understand. Place the
20 caveats that you feel are appropriate.

21 MR. MILLAR: J6.13.

22 **UNDERTAKING NO. J6.13: EGD TO PROVIDE SYSTEM**
23 **REGULATION ALTERNATIVES AND ASSOCIATED COSTS.**

24 MR. QUINN: Thank you. Those are my questions.

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

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

27 MR. CRANE: Yes. Thank you, Madam Chair.

28 Good afternoon, panel. Mark Crane, counsel for IGUA.

1 I never like to be the only thing in between lunch and this
2 hearing, so I'll be as brief as I can. I've got three
3 areas that I want to canvass with you briefly, and the
4 first one relates to the existing bottleneck between
5 Parkway and Maple.

6 And we've heard evidence that segment A contemplates
7 transmission capacity up to 1,200 tJs per day; correct?

8 MR. FERNANDES: Correct.

9 MR. CRANE: And we've also heard evidence of
10 Enbridge's open season having attracted something just
11 south of 940 tJs per day?

12 MR. FERNANDES: Correct.

13 MR. CRANE: And my question is: If segment A is built
14 and if the Kings North project is built by TCPL, which
15 would extend transmission from Albion to Vaughan, do you
16 anticipate a bottleneck as between Vaughan and Maple for
17 all or a portion of the 930 tJs that were attracted in
18 Enbridge's open season?

19 MS. GIRIDHAR: It's my understanding that
20 TransCanada's Kings North project will not be capable of
21 providing all of the 930,000 gigaJoules, that it only
22 addresses a 2015 requirement that's roughly equivalent to
23 Union and Gaz Métro's 2012 new capacity open season
24 volumes.

25 MR. CRANE: Can you remind me what those volumes were?

26 MS. GIRIDHAR: I understood they were in the 350
27 range.

28 MR. CRANE: Just so I'm clear, those address Union and

1 Gaz Métro's volume?

2 MS. GIRIDHAR: For 2015.

3 MR. CRANE: For 2015? Okay. And so if things proceed
4 as Enbridge wishes come November 1st, 2015, have you had
5 discussions with TCPL about the need for additional assets
6 for the purpose of transmission?

7 MS. GIRIDHAR: Yes. It is my understanding that they
8 would then build a second loop from Vaughan to Maple.

9 MR. CRANE: And tell me if this isn't the question for
10 you. I take it the cost associated with that would be
11 borne by shippers? Is that the expectation?

12 MS. GIRIDHAR: Yes. That is the expectation.

13 MR. CRANE: If I can take you to my second area, a few
14 questions relating to the cost increase associated with
15 building a 42-inch pipe compared to a 36-inch pipe along
16 segment A. And I want to follow up on what -- some of the
17 evidence we just heard with respect to Dr. Higgin's cross-
18 examination, and if we can pull up that evidence, the
19 exhibit, I think, it was K6.2, which was the Energy Probe
20 summary table of segment A. If it's not easily found, I
21 can let you know.

22 I mean, what I'm trying to reconcile is I had
23 understood from the evidence that -- here it is. The
24 delta, as I see, is the capital cost, which is the seventh
25 column over. The delta between the capital cost, based on
26 my math, is 72 million; is that correct?

27 MR. FERNANDES: It's correct on this table, but I
28 should note we haven't confirmed that. I think it's a

1 little lower than that, but for the purposes of a high-
2 level discussion I think that would suffice.

3 MR. CRANE: The reason I ask, or one of the reasons I
4 ask is there's some evidence on this in Enbridge's evidence
5 at Exhibit E, tab 1, schedule 2, page 2 of 2 at paragraph
6 7. And you can pull it up if you wish.

7 But I took the evidence in that paragraph to be that
8 the difference in cost between the 36-inch pipe and the 42-
9 inch pipe to be 55 million; is that correct?

10 MR. FERNANDES: That was a high-level estimate. I
11 believe it's actually a little bit lower. But for the
12 purposes of a high-level discussion that number would
13 certainly suffice.

14 MR. CRANE: It's the expectation that that -- so would
15 it fall somewhere in between, then? Between 55 and
16 72 million, or are you saying it may be less than that?

17 MR. FERNANDES: I believe it's slightly lower than
18 55 million.

19 MR. CRANE: Are you able to tell us what is it by way
20 of undertaking?

21 MR. FERNANDES: We do have the confidentiality
22 concerns, so we certainly could, but, you know, one of the
23 items was to not break apart too much detail in our costing
24 prior to having gone through the procurement process. So I
25 don't mind doing it, but it would be under the
26 confidentiality.

27 MR. CRANE: I'm content with that.

28 MR. FERNANDES: Okay.

1 MR. MILLAR: J6.14.

2 **UNDERTAKING NO. J6.14: EGD TO PROVIDE COST AMOUNTS**
3 **ASSOCIATED WITH INCREASING SEGMENT A PIPE SIZE FROM**
4 **36-INCH TO 42-INCH.**

5 MR. CRANE: Very briefly, the intention is for the
6 55 million or whatever it is to be borne by the shippers;
7 correct? The cost associated with going from the 36- to
8 42-inch pipe would be assumed by the shippers?

9 MS. GIRIDHAR: Correct.

10 MR. CRANE: And I take it, then, that if Kings North
11 is not built --

12 MS. GIRIDHAR: If I could please clarify, I took the
13 word "shipper" to mean all customers, but if you are using
14 "shippers" in the context of transmission shippers versus
15 distribution ratepayers, then we should clarify that the
16 methodology we have is 60-40 split of the total cost; it's
17 not based on incremental costs from going from 36 to 42.

18 MR. CRANE: Thank you for that clarity. For my
19 understanding, then, it's the expectation that 60 percent
20 of the 55 million, if that is indeed what it is, would be
21 assumed by the transmission customers; is that fair?

22 MR. FERNANDES: The differential between a 36 and a 42
23 has no bearing on the rate. We're proposing a 42-inch
24 pipeline; of that, 60 percent of the costs associated would
25 go to transmission and 40 percent would go to distribution.

26 MR. CRANE: I'm just trying to reconcile my
27 understanding with, then, the last sentence of paragraph 7
28 of the evidence that I've just referenced. Where it says:

1 "The shippers are expected to bear some of the
2 risk on the upfront costs associated with segment
3 A pipeline, in particular, approximately
4 55 million in costs associated with the NPS 42 as
5 compared to the NPS 36, and also any consequences
6 of delay in the Albion-to-Maple path."

7 I guess my question is: Is the word -- what's the
8 context of the word "shippers" in that sentence?

9 MS. GIRIDHAR: I should clarify that this was in the
10 context where capacity was going to be awarded pursuant to
11 the open season that we conducted. As you now know, we
12 have a term sheet that will result in capacity being
13 awarded after the NEB decides on market access and the
14 terms and conditions.

15 So what was being envisaged in paragraph 7 there was
16 that once capacity was awarded to the shippers, that these
17 shippers would sign precedent agreements with us. And then
18 in that context, some of the upfront costs associated with
19 the NPS 42 vis-à-vis the NPS 36 would be borne by way of a
20 backstopping agreement that they would sign.

21 That obviously is not the case now. We're intending
22 to provide with the 42-inch pipeline, and award capacity
23 subsequent to an NEB decision, as opposed to immediately
24 after the open season having been conducted, in realization
25 of the fact the term sheet has removed uncertainty in terms
26 of who is going to be building the downstream path.

27 And therefore that action was not necessary at this
28 point.

1 MR. CRANE: Thank you. So, so I'm clear, it is the
2 expect -- the total costs of the build, assuming you have
3 transmission capacity, will be the 60-40 split?

4 MS. GIRIDHAR: Correct.

5 MR. CRANE: Including any incremental change from 36
6 to 42?

7 MS. GIRIDHAR: Yes. As Mr. Fernandes said, that
8 difference is not really relevant. It's the cost of the
9 42-inch pipeline that will be borne 60-40.

10 MR. CRANE: When do you anticipate shippers or
11 transmitters to begin paying costs associated with the
12 build?

13 MS. GIRIDHAR: To the extent that -- so I think I
14 might have responded to this in response to Mr. DeRose's
15 questions already. To the extent that the transmission
16 facilities are operational as of November 1, 2015, the
17 expectation is they would start paying their share
18 immediately.

19 To the extent that the transmission facilities may be
20 delayed beyond 2015, but if they were already underway and
21 the precedent agreements required them to start picking up
22 that cost as of November 1, 2015, that might still be the
23 case.

24 But in the event the NEB does not approve the terms
25 sheet in a way that allows the facilities to be in place
26 for 2015, the expectation is that they would start paying
27 those costs once those facilities came in place.

28 So sorry to be so long-winded, but there is a couple

1 of different outcomes.

2 MR. CRANE: There are, and you did cover some of this
3 with Mr. DeRose. Thank you.

4 My last area I would like to quickly seek confirmation
5 on, there is a -- evidence at Exhibit A, tab 3, schedule 9,
6 page 16 of 16. And I'll wait for it to come up on the
7 screen. But it is the chart that anticipates the proposed
8 rate impacts with respect to the GTA project.

9 MR. DENOMY: Can you repeat the page number, please?

10 MR. CRANE: Yes, 16 of 16. Thank you. And am I
11 correct to assume that these estimated rate impacts reflect
12 the 60-40 split that we just discussed?

13 MR. FERNANDES: That is correct. I believe what we're
14 showing here is the total bill impact, but there was both a
15 distribution rate impact and a total bill impact, but they
16 do include the 60-40 arrangement.

17 MR. CRANE: Okay. and to the extent it hasn't been
18 provided or undertaken today, can you give us an
19 undertaking to show us the proposed or the estimated rate
20 impacts if Kings North -- or, well, put another way, if the
21 distributors end up paying for the entire project?

22 [Witness panel confers]

23 MR. FERNANDES: The correct response would be
24 interrogatory A3.EGDupdate.APPr0,15, part 4.

25 MR. CRANE: Thank you very much. Those are my
26 questions, Madam Chair.

27 MS. CHAPLIN: Thank you. Mr. Millar?

28 **CROSS-EXAMINATION BY MR. MILLAR:**

1 MR. MILLAR: Yes, thank you, Madam Chair, and just
2 very briefly some quick questions to follow up on some
3 questions by Mr. Elson and I think Mr. Wolnik as well.

4 You may recall that they asked you some questions
5 about the possibility that this project will result in some
6 under-utilized pipe in the ground, whether it be the GTA
7 project pipes themselves from less load than you forecast
8 or the possibility that shifting loads caused by the
9 project will not strand other pipes but lead to less
10 utilization than you currently have on existing pipes. Do
11 you recall those questions?

12 MR. FERNANDES: I do. There was quite a few of them.

13 MR. MILLAR: Yes, there were, and I -- we're not going
14 to go over them in any great detail. But one question from
15 Mr. Elson. He asked -- essentially he asked if you agreed
16 that, to the extent that the volumes aren't what you
17 forecast or existing pipe becomes underutilized, he asked
18 if you agreed that perhaps ratepayers shouldn't pay for all
19 that pipe anymore, if it's not utilized to the extent that
20 you had originally anticipated. And I believe, Ms.
21 Giridhar, your answer to that was no. Do you recall that?

22 MS. GIRIDHAR: Correct.

23 MR. MILLAR: And just to be clear, in this case
24 Enbridge is not -- this is not a rates case; is that
25 correct? You are not seeking any particular rate treatment
26 or any rate orders at this time with relation to either the
27 GTA project or any other existing pipes?

28 MS. GIRIDHAR: That is correct.

1 MR. MILLAR: Are any of you familiar with Enbridge's
2 link pipeline?

3 MS. GIRIDHAR: At the high level, yes.

4 MR. MILLAR: And I'll run this by, and if you are not
5 familiar enough then we'll just have to leave it, but my
6 understanding is that that's a pipe that, for whatever
7 reason, was not utilized to the extent that had initially
8 been anticipated. Does that sound right to you, or are you
9 able to speak to that?

10 MS. GIRIDHAR: My recollection is that, yes,
11 utilization on the link pipeline was less than what had
12 been forecast.

13 MR. MILLAR: And my understanding is that the Board
14 disallowed some recovery for that pipeline because of that?
15 Does that match your recollection?

16 MS. GIRIDHAR: I have a very sketchy recollection at
17 this point, so I'll take your word for it. But I should
18 point out that the link pipeline was transmission-only
19 pipeline, and what we are talking about here are primarily
20 distribution facilities.

21 MR. MILLAR: Understood. And I think you and I could
22 probably agree that this wouldn't be the proceeding to deal
23 with that issue in any event. Would we agree on that?

24 MS. GIRIDHAR: That is correct.

25 MR. MILLAR: Thank you. Those are my questions.

26 MS. CHAPLIN: Ms. Hare has some questions.

27 **QUESTIONS FROM THE BOARD:**

28 MS. HARE: I have just a couple areas where I was a

1 bit confused by what was said, and one was said just
2 recently. Mr. Fernandes, you said the differential between
3 the 36 and 42 has no bearing on the rate. Can you explain
4 that to me? I don't quite understand how it has no bearing
5 on the rate when there is a difference in the capital
6 costs.

7 MR. FERNANDES: What I was trying to refer to is that
8 the difference between a 42- and a 36-inch pipeline is not
9 what goes into the rate, it's the total cost of the 42.

10 MS. HARE: But there is a difference in the cost
11 between 42 and 36.

12 MR. FERNANDES: There is a difference, but there is
13 also a difference in the capacity. So in order to look at
14 what's going to transmission, you have to look at the total
15 costs and the percentage allocated on a total basis.

16 MS. HARE: Thank you. There's another area that I was
17 a bit confused, and I don't know if you need to turn it up.
18 It's volume 5 from the transcript. And it's the
19 conversation you were having with Mr. Elson.

20 If I understood what he was asking, he was again
21 pursuing the 42-inch pipe for segment A, and he was asking
22 you -- and I know you don't agree with this scenario, but
23 he was asking you whether or not the pipe size would be
24 different if you had no load growth. And you said no.

25 I don't understand how, if you reduced the load by 190
26 teraJoules per day, that it wouldn't make a difference in
27 the pipe size. Could you explain that to me, please?

28 MR. FERNANDES: So for what has been put on the

1 evidence, the proposed facilities are proposed to go in for
2 2015. The shift in all of the gas supply is what we would
3 expect to do in 2015, and it has been held constant.

4 So the pipe facilities are capable in the distribution
5 system of accounting for that growth, but there's no gas
6 supply savings. And the piece about us not reducing the
7 pipe size is that the growth would occur in a variety of
8 areas, so we would not be looking to reduce our 800 we're
9 carrying on segment A regardless of load growth, because
10 we're starting with 800 when we haven't had any growth.

11 MS. HARE: And one last piece again where I'm just a
12 little confused. You talked about NPS 36 from the most
13 common pipe size for us to expand the backbone of our extra
14 high pressure grid. So I don't understand why 36 -- why
15 there's a technical problem, then, if it's 36 to 36.

16 MR. FERNANDES: I'm sorry, could you repeat the
17 question?

18 MS. HARE: Maybe I didn't understand -- well, I know I
19 didn't understand your answer. If maybe you do want to
20 turn up the transcript, volume 5. And it's page 54. And
21 you're talking about the fact that NPS 36 -- sorry, I guess
22 it's NPS 36 -- has been the most common pipe size.

23 So I don't understand why there seems to be a
24 technical issue if it ends up being a 36-inch pipeline
25 tying into a 36-inch line.

26 [Witness panel confers]

27 MR. FERNANDES: The reference that you have was in a
28 different context.

1 MS. HARE: That's what I was wondering.

2 MR. FERNANDES: So the context that I had taken that
3 from Mr. Elson was that he was asking on our segment B
4 whether, if there was no load growth, could you downsize
5 any of those facilities. And what I was stating, then, it
6 wouldn't make a lot of sense for us to tie into an existing
7 36-inch in one end to another existing 36-inch at the other
8 end with a different pipe size, because it would create
9 some operational concerns.

10 And that the fact is for -- solely for distribution
11 purposes, upgrading our backbone of our extra high pressure
12 network, in the last two decades all we have put in is
13 NPS 36 pipeline when we're doing those types of upgrades.
14 So it's the most economical capacity addition which you
15 would do for a distribution system only.

16 MS. HARE: Thank you.

17 MS. CHAPLIN: I have some questions in the area of the
18 reliability issue.

19 You have described the reliability benefits and
20 reliability need associated with this project. And one of
21 the things I would like to understand is what is it about
22 that need that sort of comes together now.

23 For example, how long has this been a concern? And
24 why is it bringing forth a proposal now as opposed to three
25 years ago? Five years ago?

26 [Witness panel confers]

27 MR. FERNANDES: The GTA project has been in planning
28 stages for a number of years, but ultimately those items

1 are drawn from a confluence of factors.

2 So we've had the North American shift in supply with
3 emerging basins in close proximity that we've been aware
4 of, and we see potential benefit from our customers.

5 We've seen TransCanada with escalating tolls, and also
6 the prospect of Energy East where they will be taking out
7 significant amount of supply that is used to serve our
8 franchise.

9 And in addition, we had a requirement where we're
10 forecasting load growth triggering some form of
11 reinforcement on our system in order to meet that load, in
12 addition to the issues around ageing infrastructure.

13 So in looking in all of these emerging items, we
14 decided that we needed to look at a holistic solution and
15 examine our complete supply chain to make sure that it was
16 in alignment, so that we had our supply lines upstream
17 where we're bringing our gas into our system and how our
18 actual extra high pressure backbone works aligned with one
19 another. And that's how we came to the proposed facilities
20 for this application.

21 MS. CHAPLIN: So would it be fair to say that looking
22 at the ageing infrastructure aspect, it has been a concern
23 for a while, but these other factors all coming together
24 lead you to the timing that you are now proposing in terms
25 of when you're actually going to do something about it?

26 MR. FERNANDES: Yes. In terms of the actual trigger
27 with respect to timing, that is absolutely the case.

28 MS. CHAPLIN: So why is it important to do that now as

1 opposed to, for example, a year from now, when there may be
2 more information available from the various consequential
3 open seasons which are still required or planned?

4 MR. THALASSINOS: So there are some additional factors
5 in terms of why reliability is such a large concern.

6 First of all, as a company, we design for a high
7 margin of reliability, as our customers would expect, and
8 because the consequences of imprudently not designing for a
9 high margin of reliability is loss of tens of thousands of
10 customers. So...

11 MS. CHAPLIN: But that situation existed, presumably,
12 three years ago and you were looking at broader concerns?

13 MR. THALASSINOS: Yes. So there's a number of
14 factors, and --

15 MS. CHAPLIN: So it's sort of why does another year?

16 MR. THALASSINOS: I think there's a -- well, first of
17 all, it's that those factors have happened. We've seen
18 them, this summer, as of now. We have been operating under
19 a pressure restriction that, if it extended through the
20 winter, we would not have been able to maintain supply to
21 downtown Toronto. Two separate situations this year that
22 would have resulted in that situation: the flooding of the
23 Don Valley, and the follow-up work following our integrity
24 assessment on our lines that required 750 metres of our
25 main to be replaced immediately. And we rushed to get that
26 work done and it's finishing up now.

27 But if those events had happened at this time period,
28 we would likely have not been able to maintain -- sorry,

1 not likely -- we would not have been able to retain supply
2 to downtown Toronto.

3 We have a single-feed, 40-year-old pipeline supplying
4 downtown Toronto, and it's imprudent to continue to rely on
5 it, based on these -- the current situation.

6 To further add to that, when we have some of these
7 issues, they don't necessarily only extend a few days or a
8 few weeks. If we look at two other lines that, as of today
9 -- our Cornwall line and our Barrie-to-Collingwood line,
10 those have been under pressure restriction for over a year,
11 through the last winter period. And we're still assessing
12 it now and I don't know if it's going to go through another
13 winter period, because we are still assessing the ILI
14 information, in one case, to see whether we can re-raise
15 the pressure, or whether we'll have to have either a
16 temporary or a further permanent restriction.

17 So if -- now, the Barrie-to-Collingwood line and the
18 Cornwall lines have a sufficient margin of reliability and
19 safety such that we were able to operate the entire winter
20 with those pressure restrictions on those two lines, we
21 would not be able to operate the GTA system in a similar
22 circumstance.

23 And I'll even put another directional industry item
24 that's out there. Some people have heard about the
25 incident in St. Bruno about three years ago, where eight
26 people were killed and about, I think, 27 people were
27 injured -- don't quote me on the latter one -- as a result
28 of a line failing in an urban environment, causing a

1 catastrophic event, a rupture.

2 And largely as a result of that, what you've been
3 hearing here is that our regulations are -- one is our
4 regulations are changing, both here and in the US, where
5 they're putting additional requirements, additional risk
6 mitigations-expectations on high-stress pipelines. In
7 Ontario, for the TSSA, that is that focus on the 30 percent
8 of SMYS.

9 I'll even point to something as recently as just
10 within the past few days, where PHMSA, which is the federal
11 regulator in the US, is proposing new pressure restrictions
12 that for class 5, 6 and 7 -- what do they call -- class
13 locations, above class 4, which is our highest, that would
14 be reducing those stresses in urban areas to sometimes 30,
15 20 and 10 percent of the SMYS. So directionally, this is
16 where the industry is going.

17 As a prudent operator and safe operator, this is where
18 we are going regardless, as well.

19 And we have a lot of concerns with continuing to
20 operate knowing these events and these risk factors. So
21 we're looking to manage those risks and prudently manage
22 those risks.

23 And so considering that the DVP line is an over 40-
24 year-old line, a class 4 location -- so highest density
25 class location -- and it's a single feed, it just doesn't
26 make sense to not work now to improve the reliability and
27 safety of that line.

28 And we are, quite frankly, in a deficit situation

1 today because -- so we want to do it as soon as possible,
2 but the reality is, today, if those other situations had
3 occurred, we would not be able to maintain supply to
4 downtown Toronto.

5 MS. CHAPLIN: Okay. Thank you. Sorry, Mr. Cass, I
6 neglected to ask if you had questions in re-examination.
7 Do you?

8 **RE-EXAMINATION BY MR. CASS:**

9 MR. CASS: I do, yes, Madam Chair. I'll try to be
10 quick, given lunch is being delayed for everyone.

11 That last area actually touched on one of my re-
12 examination questions, so although this will mean I'm
13 taking things out of any particular order at all, perhaps I
14 would come back to that.

15 There has been discussion about lowering of pressure
16 on pipelines, of course, during the cross-examinations that
17 have occurred today, and earlier Mr. Fernandes had
18 mentioned that these pipelines where you proposed to lower
19 the pressure are in highly populated areas.

20 I had wanted to ask the panel to elaborate on class
21 locations, what locations these pipelines are in, and the
22 implications of that.

23 Now, you've touched on that to some extent, Mr.
24 Thalassinos, but can you just elaborate a little more about
25 what class locations are all about and what class locations
26 these pipelines are in?

27 MR. FERNANDES: Very quickly, class location in the
28 Canadian code refers to ultimately population density, with

1 class 4 being the highest and class 3 being the next
2 highest. Class 3 and 4 are suburban and urban
3 environments.

4 The most recent code adoption document as being
5 referred to in the evidence, the FS-196-12, explicitly
6 calls anything that is a class 3 or 4 location as a high-
7 consequence area, in terms of pipelines over 30 percent
8 SMYS.

9 So the 26-inch line and the Don Valley line are
10 primarily in class 3 and 4 locations, so the -- almost the
11 entire length of the pipelines would be considered to be a
12 high-consequence area from the TSSA, and that's
13 notwithstanding our concerns about the reliability of
14 supply.

15 MR. CASS: And a related area that came up in cross-
16 examination, primarily with Mr. Elson, he had a number of
17 questions about attempts to calculate the probability of
18 risks coming to being with respect to these pipelines where
19 you want to reduce pressure, particularly the Don Valley
20 pipeline.

21 Mr. Moore, I didn't get your words precisely, but you
22 said something to the effect that you didn't see that it
23 would be helpful to try to calculate the probability of
24 such a risk. Can the panel just elaborate on that,
25 perhaps?

26 MR. MOORE: Maybe quickly. One failure would be too
27 many, so it's not acceptable to us.

28 MR. CASS: Can you talk about it, perhaps, in terms of

1 the examples of what the main risks are to pipelines like
2 this?

3 MR. MOORE: One of -- well, I think what we consider
4 the main risk would be third-party damages to this line.
5 And as Mr. Thalassinos mentioned, you know, we don't --
6 well, we don't have control over the folks that operate the
7 excavators. We do our very best to prevent our lines from
8 being damaged. However, if one was -- this kind of event
9 could happen, and it could happen at any time of the year
10 -- we would lose capacity to serve our customers in
11 Toronto, and the safety impact to that could possibly be a
12 rupture situation.

13 So I'm personally very uncomfortable about that
14 current state and would like to see us have this
15 opportunity to reduce the pressure in those older lines to
16 improve reliability and safety.

17 MR. THALASSINOS: So just to add to what we're saying
18 is that, yes, third-party damage is the predominant
19 pipeline threat, and by building these facilities we will
20 be able to drop the operating stresses to below 30 percent
21 on the new and the proposed facilities, so what -- which
22 will reduce the overall corridor risk on this pipeline.

23 So I referred earlier to the fact that the generally
24 excessive threshold between leak and rupture is 30 percent
25 of SMYS. That is why that number is so important.

26 So by dropping both -- by building these facilities
27 and dropping the operating stresses of both facilities to
28 less than 30 percent SMYS we're able to significantly

1 reduce the risks and the catastrophic consequence potential
2 with a rupture on these lines.

3 MR. CASS: That's helpful. Thank you. So can you
4 comment on the usefulness of trying to do a probability
5 assessment of the chances that a third-party is going to
6 damage your line? Can you comment on the usefulness of
7 even trying to do that?

8 MR. FERNANDES: I think I can state that we know from
9 our -- as Mr. Moore mentioned, we have damage-prevention
10 programs. We're always seeking to make sure that our
11 assets in the ground are not being damaged. But having
12 said that, we do have approximately four damages per day,
13 365 days a year. To Mr. Moore's point, one incident is too
14 many, given the location of these lines.

15 MR. CASS: Okay. I'll move to a completely different
16 subject. Ms. Giridhar, you've mentioned a number of times
17 during the cross-examinations how the proposed pipeline
18 will allow Enbridge to replace discretionary supplies of
19 gas obtained under discretionary services.

20 Can you elaborate briefly on why this matters so much
21 to Enbridge?

22 MS. GIRIDHAR: Certainly. I would like to turn to
23 Exhibit A, tab 3, schedule 5. I believe it's the update
24 from May, page 28. Do we have that up on the screen?

25 [Witness panel confers]

26 So it's up on the screen now, but if you look at
27 table 1 and the status-quo scenario, it's showing our peak-
28 day supply-demand balance for 2016. There's a number of

1 line items there, but I would like to highlight three of
2 them.

3 If you look at our peaking supplies number, it's 158
4 tJs per year -- per day; my apologies. That currently is
5 an arrangement that we know is not coming on firm
6 transportation. It's coming on through the use of non-firm
7 transportation and TransCanada.

8 If you look at the STFT, which is the line below that,
9 that's 584 tJs per day. Then if you look at the second-
10 but-last number, the delivered supply that direct-purchase
11 customers are using, that's 285 tJs.

12 If you were to add all three of those numbers, we will
13 arrive at 1,000 tJs of discretionary volume that's serving
14 the Enbridge franchise on peak day. That is upwards of
15 25 percent of our peak-day requirement right now. And of
16 course it includes direct purchase.

17 We are probably unique among all Canadian utilities at
18 any rate in terms of this level of reliance on
19 discretionary volume. Quite simply put, discretionary
20 volumes do not come with any renewable rights. They come
21 with no certainty that you'll have that capacity available
22 to you.

23 There's only one way we can mitigate that reliance on
24 discretionary volumes, and that is by taking firm
25 transportation. That is why it is so relevant to us. We
26 have a very large exposure in terms of our ability to meet
27 peak-day demand, if we were to continue with the use of
28 discretionary services in the changing environment that we

1 have today.

2 The first change is TransCanada's pricing flexibility
3 that the NEB has awarded them, which means that they can
4 price pretty much any way they want for discretionary
5 services.

6 There's also capacity reductions that they are
7 contemplating, which means the availability of these
8 discretionary services is not guaranteed into the future.

9 MR. CASS: Thank you. Just quickly a couple of other
10 areas, if I may. And I'll try make this as quick as I can.
11 Mr. Brett had some questions about a suggestion that
12 TransCanada build the proposed pipeline, and there was
13 quite a bit of exchange that focused on rate and toll
14 implications of that.

15 I just wondered if you could comment more broadly on
16 the implications of a transmitter like TransCanada
17 Pipelines building a piece of pipeline that would form part
18 of your integrated distribution system.

19 [Witness panel confers]

20 MS. GIRIDHAR: There's at least two things I would
21 like to point out in terms of having the transmitter build
22 a piece of pipe that is going to be completely integrated
23 into your pipeline, versus us doing it ourselves.

24 First one, of course, is the degree of control that we
25 have as the owner/operator of the pipeline, which is
26 essentially integrated into our distribution facilities,
27 versus taking a service from a transportation company
28 pursuant to certain terms and condition that are applicable

1 to all shippers on the line. So that would be restrictions
2 in terms of how much gas you can take through, when you can
3 take through, imbalances and how they are dealt with, and
4 so on.

5 The other issue, of course, is you never know if the
6 transmitter eventually will change their terms and
7 conditions of service. So recently we've had a tariff
8 proceeding at the NEB where TransCanada has sought to
9 change the renewal terms for capacity. They have made
10 capacity non-renewable because, pursuant to the NEB
11 decision that told them they didn't have an obligation to
12 serve, but indeed they should be seeking all abilities to
13 re-deploy their facilities, they have taken a certain
14 course of action.

15 So essentially if you have a line that's critical to
16 meeting your distribution needs and it's essentially
17 integrated with the rest of your distribution system, the
18 prudent thing to do is for the franchise operator to own
19 that piece of pipe, and not take a service.

20 MR. CASS: Given the time of day, just one final area.
21 I'll leave aside some other questions I had, but one final
22 area.

23 Mr. Quinn had questions relating to the reasons for
24 not connecting at Bram West and connecting instead at
25 Parkway. A certain aspect of that was discussed in some
26 detail. I just wanted to be sure. Did you give the full
27 set of reasons as to why you would propose to connect at
28 Parkway rather than Bram West?

1 MR. FERNANDES: There are two main reasons for our
2 customers. One is the offsetting toll impact compared to
3 the incremental capital.

4 The other one, though, is the fact that with the
5 capacity being built out from Parkway to Maple, this is an
6 incremental capacity add on that total transmission system
7 capacity. So we believe that in building it out now, it
8 has the capability of helping with the coordinated build-
9 out of infrastructure. So it has the capability to offset
10 downstream facilities.

11 As has been mentioned, the Kings North project will
12 only go to Vaughan, and there is an incremental build
13 beyond that.

14 In our discussions with both Union and TransCanada in
15 terms of coordinating that build-out, there is an automatic
16 offset where you have the capacity. You can build it
17 downstream of Albion; you can build it upstream. It
18 provides a higher level of capability down the road and can
19 offset other facilities as they go to build out that path
20 towards short-haul.

21 For example, one of the things they would be looking
22 to do is, first the Kings North and then another build from
23 Vaughan to Maple, incremental compression could be added.
24 All of those things would add additional incremental
25 capacity along that path.

26 The build from Parkway to Bram West could offset some
27 of those, so we don't think it's an actual incremental
28 build at all.

1 MR. CASS: Thank you, Madam Chair.

2 MS. CHAPLIN: Thank you.

3 MR. CASS: That's my re-examination.

4 MS. CHAPLIN: Thank you. So Mr. Moore, Mr.

5 Thalassinos and Mr. Denomy, you are done now and excused
6 with the Board's thanks.

7 Ms. Giridhar, I believe you're returning for the joint
8 panel, and, Mr. Fernandes, you will be on tomorrow.

9 So we will be finishing Enbridge panel 2 tomorrow, as
10 well as the GEC/Environmental Defence panel.

11 And I guess I will just put it on the record for all
12 parties, this being witnesses and cross-examiners, the
13 Panel's ability to sit an extended time tomorrow is
14 limited. So I will be quite rigorous in keeping people to
15 their time estimates. We were more flexible today, and I
16 think we'll have to be pretty rigorous tomorrow to make
17 sure we complete what we have committed to completing.

18 So with that, thank you and we will see you tomorrow
19 morning.

20 --- Whereupon the hearing adjourned at 2:10 p.m.

21

22

23

24

25

26

27

28