

ONTARIO ENERGY BOARD

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| **FILE NO.:** | **EB-2015-0029**  **EB-2015-0049** | **Union Gas Limited**  **Enbridge Gas Distribution Inc.** |
| **VOLUME:**  **DATE:** | **Technical Conference**  **July 7, 2015** |  |

EB-2015-0029

EB-2015-0049

THE ONTARIO ENERGY BOARD

Union Gas Limited and Enbridge Gas Distribution Inc.

Applications for approval of 2015-2020 demand side management plans.

Hearing held at 2300 Yonge Street,

25th Floor, Toronto, Ontario,

on Tuesday, July 7, 2015,

commencing at 9:30 a.m.

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TECHNICAL CONFERENCE

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MICHAEL MILLAR Board Counsel

LAWRIE GLUCK Board Staff

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ALEXANDER SMITH Union Gas Limited

DENNIS O'LEARY Enbridge Gas Distribution Inc.

JOHN WOLNIK Association of Power Producers of Ontario (APPrO)

TOM BRETT Building Owners and Managers Association (BOMA)

VINCENT DeROSE\* Canadian Manufacturers & Exporters

JULIE GIRVAN Consumers' Council of Canada (CCC)

ROGER HIGGIN Energy Probe Research Foundation

KENT ELSON Environmental Defence

DWAYNE QUINN Federation of Rental-housing Providers of Ontario (FRPO), Ontario Greenhouse Vegetable Growers (OGVG)

RANDY AIKEN\* London Property Management Association (LPMA)

DAVID POCH Green Energy Coalition

KAI MILLYARD

CHRIS NEME\*

PAUL CHERNICK\*

GLEN WOOD

MATT GARDNER\* Low-Income Energy Network (LIEN)

\* appearing by teleconference

MARION FRASER Ontario Sustainable Energy Association (OSEA)

JAY SHEPHERD School Energy Coalition (SEC)

JAYA CHATTERJEE City of Kitchener

MICHAEL JANIGAN\* Vulnerable Energy Consumers Coalition (VECC)

\* appearing by teleconference

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Tuesday, July 7, 2015

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

MR. MILLAR: Good morning, everyone, I think we will get started. This is day two of the Union-Enbridge DSM technical conference. We have Union's witnesses here to answer questions today.

Before we get started, just a couple of very minor housekeeping matters. When we went back and looked at the transcript, we discovered we had accidentally given -- we had assigned undertaking number J T1.23 to two separate undertakings.

So the second of those undertakings, which was Enbridge to make best efforts to provide more information about the breakdown between transmission and distribution, will be changed from J T1.23 to J T1.47, which is the last undertaking. Undertaking J T1.47.

MR. MILLAR: And finally, I guess there was some confusion about exactly what undertaking -- I'm sorry, that is what it was previously identified as, what I just read.

Enbridge has suggested we make the language a little bit more clear on that.

I think this was GEC undertaking. So Mr. Poch is here to hear this. But what they have proposed changing it is to is Enbridge to make best efforts to provide more information in response to GEC 52(c).

David, I don't know if you discussed that with them. And if you want a moment to think about it, that's fine. But that's the proposal.

MR. POCH: I need to go back and look at it, sorry.

MR. MILLAR: Let me know if that causes a problem, and we will deal with it later.

MR. O'LEARY: Michael, we're happy to take that off-line and deal with Mr. Poch on that.

MR. MILLAR: You will let me know if there is a problem?

MR. O'LEARY: Yes.

MR. MILLAR: Okay. With that, I think we can turn things over to you, Mr. Smith, if you wish to introduce your witnesses, or if you had any preliminary matters.

# Preliminary Matters:

MR. SMITH: Just one preliminary matter, thank you, Mr. Millar. We have two panels, one dealing with avoided costs and one dealing with everything else.

We understand that the intervenors, or the relevant intervenors have some time constraints. So we're trying to accommodate that, and what we propose to do is call the second panel, which will be composed of Tracy Lynch, director of energy conservation strategy, and Michael Sloan, principal with ICF International after the break -- probably right after the break, depending on what seems convenient at the time.

Then, if necessary, which it probably will be, we will reconstitute our main panel, which I will introduce now.

MR. MILLAR: Just a moment, Alex. How many people have questions for the avoided costs panel? David Poch; anyone else? Anyone on the phone with questions for the avoided costs panel?

Okay. Just so we get a sense for timing, David, do you have a sense of how long you will be with them?

MR. POCH: It will certainly be under an hour, I would think. It may go very quickly; just chatting with counsel, we may be able to work things out faster.

MR. MILLAR: We will be done before lunch then, certainly, with your questions?

MR. POCH: Yes, then we will be able to get back to this whoever is left on this, which may include with us.

MR. MILLAR: Let's proceed that way. Mr. Smith?

# UNION GAS LIMITED - PANEL 1

**Greg Tetreault**

**Ehsan Dibaji**

**Tracy Lynch**

**Tracey Brooks**

**Bryan Goulden**

MR. SMITH: Okay. So our witness panel is seeping off into the gallery slightly. So at my left is Greg Tetreault, manager rates and pricing.

To his left is Ehsan Dibaji, manager of low-income marketing, formerly senior advisor, DSM strategy.

On his left is Tracy Lynch, director energy conservation strategy.

On her left is Tracey Brooks, manager DSM strategy.

And on her left is Bryan Goulden, manager market development.

MR. MILLAR: Can we get straight to questioning, then?

MR. SMITH: Please.

MR. MILLAR: Okay. We hadn't discussed an order, though I heard rumours that Mr. Quinn or maybe Mr. Wolnik wanted to go first.

Okay, Mr. Quinn followed by Mr. Wolnik.

# Questions by Mr. Quinn:

MR. QUINN: Good morning, panel, Dwayne Quinn on behalf of OGVG and FRPO. I am going to start asking the growers' questions first, and then that's predominantly what we will focus on this morning.

First off, if you could turn to tab 5, OGVG 9.

MR. QUINN: Can you hear me okay, Mr. Goulden?

MR. GOULDEN: Yes.

MR. QUINN: I just want to make sure I understand the response we're receiving here in this interrogatory.

We first asked about the scale limitations that would inhibit the use of the application -- these applications for T1, or even M45 customers.

I understand that Union says there are no limitations to using this type of technology to assist customers in those rate classes; is that correct?

MR. GOULDEN: That's correct.

MR. QUINN: And so would Union then not be in a position to provide custom projects for customers in this rate class?

MR. GOULDEN: Possibly. I think the reference to the applications, Mr. Quinn, was to be illustrative of the sorts of applications that are available, and we could certainly help customers with those.

MR. MILLAR: Mr. Goulden, I'm not sure -- we're picking you up very well.

MR. GOULDEN: Can you hear me now?

MR. MILLAR: Try again.

MR. GOULDEN: Magic. Okay. Sorry the light was on, but no one was home. Maybe -- do you want me to repeat?

MR. QUINN: Is the court reporter okay? Okay, thank you.

I heard you, Mr. Goulden, and the court reporter did, so I think we can essentially move on.

I guess our concern is, it's clear that in your response, it says that you can provide these services and have provided these services to greenhouses.

So in our view, we're trying to understand what limitations there would be, in Union's view, to continue to provide custom projects to M4, M5 and T1 greenhouses.

MR. GOULDEN: There were none that were intended by that reference, Mr. Quinn. That was really to identify the sorts of applications that might also be applicable to the large volume program.

MR. QUINN: Okay. So a more direct question then: To the extent that growers were interested in combined heat and power applications, Union would be able to serve them through the DSM program for custom projects?

MR. GOULDEN: We could certainly provide technical support for those customers.

MR. QUINN: Okay, that's very helpful. Thank you. Then on that same vein then, if we can move to OGVG 8.

MR. GOULDEN: What's the topic for that?

MR. QUINN: Sorry, I have T11. I haven't caught up with the topic categorization myself.

MR. GOULDEN: I have that.

MR. QUINN: Okay. Here again, we're talking about combined heat and power for greenhouses.

There was a jurisdictional review that was done. I assume it was a more broadly-scanned jurisdiction review, from my reading of the evidence; is that correct?

MR. GOULDEN: I think the answer says we haven't done a jurisdictional review, Mr. Quinn, specifically related to CHP.

MR. QUINN: Specific to CHP. You did a jurisdictional review for other DSM applications more broadly, elsewhere in your evidence, though, correct?

MR. GOULDEN: Tracy, do you want to?

MS. LYNCH: We have done jurisdictional reviews related to other programs.

MR. QUINN: That's the generic jurisdictional review. Specifically CHP for greenhouses, you have not done any jurisdictional review to this point?

MS. LYNCH: That's correct.

MR. QUINN: So if we were to bring greenhouse growers opportunities for projects, Union would be receptive to models that may have worked in other jurisdictions?

MR. GOULDEN: As it relates to potential custom projects, we're happy to talk to anyone.

MR. QUINN: Okay, thank you.

And then I guess my question is more generic, and it is not actually related to an existing application.

But to the extent that Union is looking at project screening and there is potential congestion in the electricity market, from a TRC point of view, would Union be willing to consider looking at what could make sense more broadly from a TRC perspective, that would have obviously additional use of natural gas potentially in this category, but has an overall TRC positive benefit for greenhouses and for the market in general?

[Witness panel confers]

MS. LYNCH: Mr. Quinn, just for clarity, when you say "congestion," are you speaking in reference to CDM programs?

MR. QUINN: We're talking in terms of electricity transmission congestion that warrants the potential need for significant investment in electricity infrastructure, which may be able to be avoided through targeted placement of CHP in something like a greenhouse sector.

[Witness panel confers]

MS. LYNCH: Our expectation would be that that would be dealt with as a CDM program, and certainly to the extent that we could support that with technical knowledge, we would certainly do that.

MR. QUINN: Okay. Thank you. And I guess that's where I was heading in terms of -- I know it's hypothetical, and I'm not asking for specific commitments, but at this juncture, as we're looking at the horizon over this next six years, there are opportunities that are created through your collaboration fund, and I was just trying to have an understanding of what -- what potential Union is going to consider in that collaboration fund.

So the collaboration is predominantly with the LDCs, but the LDCs as a load serving entity for the electricity market would have some knowledge of where their needs are for transmission.

So Union would entertain the more broad application of societal benefits associated with limiting electricity transmission investment?

[Witness panel confers]

MS. LYNCH: We would certainly look at it, Mr. Quinn. It seems that this would be more related to the avoided costs we would expect to see on the CDM side related to those programs.

MR. QUINN: Okay. Well, I know this is kind of a crossover from a demand-side application for Union to a potential load-increasing application for Union, but net net, from a societal point of view, that's the point we're trying to get across, is that, as you're moving forward in your six-year paradigm, these opportunities may exist. And to the extent that they're brought forward to Union, there are limitations that Union sees in terms of assessing those under some form of CDM collaboration approach?

MS. LYNCH: I don't see any limitations. We would have to assess them as they're -- as they're considered.

MR. QUINN: Okay. No, that's fair enough. So in that realm of collaboration then, if I can get you to turn up OGVG 7 which is in -- still in topic 11.

MS. LYNCH: I have that, Mr. Quinn.

MR. QUINN: Okay. Now, I want to take this just a little bit out of the context we were just discussing because I recognize that there could be an increase in gas utilization under a combined heat and power.

But I'm trying to read through Union's plans for collaboration with the electric utilities, and we applaud the efforts, frankly. But at the same time, I'm trying to determine how Union is going to have those benefits and increases in potential saved cubic metres flow into the targets for successive periods, for the periods that follow an initial successful project with a LDC.

So in part (c), I asked:

"Please provide a detailed description of how expected cubic metre savings from these collaborations would be forecasted and used to adjust the m3 targets in the years of implementation."

Union provided me a reference in Exhibit A, tab 3, page 23, which basically a summary of that was they would be increased by 2 percent or -- adjusted by a percentage factor but not specific to the question we were asking and that is: To the extent that projects are identified which have cubic metre savings as a result, how will those be used to adjust the targets for the years of implementation of those projects?

Would it be helpful, Ms. Lynch, to have that reference brought up, Exhibit A, tab 23, page 23?

MS. LYNCH: Yes.

MR. QUINN: Okay. If Ms. Shaw or somebody could...

MS. LYNCH: So just in this reference, Mr. Quinn, at line 9, we're speaking about how targets would be adjusted based on new DSM programs that come out of the pilots, not specifically how we would adjust for CDM-related projects that would be completed.

MR. QUINN: Okay. I'm having trouble myself, then, understanding the connection between this answer and the question that we had asked, and that is: How CDM projects that have cubic metre savings projected, how those would be used to impact the targets for the periods of -- that the projects would be implemented for.

[Witness panel confers]

MS. LYNCH: So, Mr. Quinn, from an offering perspective, if something new were to come out of our pilot budget, which is where we've identified collaboration opportunities, where we would pursue it, if it were to come up out of that and we were to have a new program or offering, then we would use the method as we've outlined here.

It doesn't specifically address if a project or a project by project is identified. Instead that would be accounted for in our formulaic approach as we would go forward.

MR. QUINN: So to be specific, then, the example you've used here is saying a behavioural target outlook of 4 million is identified.

So let's just say you have a CDM project that is expected to generate a million cubic metres of savings. Are you saying that you would then necessarily adjust your target for the next period and increase it by a million cubic metres for whatever class of customers the CDM collaboration was targeted for?

MS. LYNCH: We wouldn't adjust it on a project-by-project basis, we would adjust it if there's new offerings that are identified.

MR. QUINN: Okay. So it's specific to a new offering, but if it's a new offering and it's a million cubic metres, then you would adjust -- let's just say it's only for the commercial class. It comes up as only the commercial class. Then the commercial resource -- resource acquisition target would be increased by a million cubic metres. Do I have that correct?

[Witness panel confers]

MS. LYNCH: It would have to be identified as a specific offering with a budget allocated to it, not, again, a project-by-project basis.

MR. QUINN: And that budget, would that be a separate budget from your collaboration fund? In other words, would you be seeking more dollars in resource acquisition or would the funding -- if the pilot came out of the collaboration fund, where would you expect those dollars to run the program to be drawn from?

MS. LYNCH: We would have to reallocate the existing resource acquisition budget to -- to accommodate a new offering.

MR. QUINN: So amongst the customer classes, potentially? Is that -- is that what you're saying?

MS. LYNCH: Potentially.

MR. QUINN: Okay, okay. I know it is a hypothetical question, so I won't ask for more specificity than that. I'm just trying to understand how the mechanics worked in terms of the collaboration fund. I think that is sufficient in that area, thank you.

So if I could ask you to turn up OGVG 5? I think it would be in tab 5. I apologize, I don't have the direct -- I will confirm that in a moment here, hopefully.

It is up on the screen here, and it is actually in tab 10, thank you.

So first off, I just want to understand this table in terms of the -- what has happened in terms of the separation of the T1 and T2 customers.

If I'm reading this table -- and I am going to ask you to help me read this table, how -- I'm going to hopefully be precise with my question. The T1 customers obviously have been split from the T2 customers as of 2013 and 2014. Do I have that as a correct reading?

MR. DIBAJI: Correct.

MR. QUINN: Okay. So the budget that's allocated to rate T1, if we start in 2013, the 1.8 million that is shown in the second column, second number down, that is the budget that was allocated.

So would that have been put into rates?

MR. DIBAJI: Correct.

MR. QUINN: Okay. So that would have formed part of the T1 rate in the rate making for, in that case, the 2013 rebasing year?

MR. TETREAULT: Yes, that's correct.

MR. QUINN: Thank you. Sorry, Mr. Tetreault. I'm talking to the back of your head here.

So ultimately there was a total allocated of 2.2 million, which included some shareholder incentive and LRAM. So the shareholder incentive and LRAM allocated to T1 would have occurred in the 2013 disposition proceeding. Is that correct, Mr. Tetreault?

MR. TETREAULT: I'm just thinking, Mr. Quinn. Yes, yes, that is correct.

MR. QUINN: Now I actually wasn't precise enough with my question. The 2013 DSM disposition proceeding, as opposed to the deferral account proceeding.

MR. TETREAULT: Yes, that's how I understood your question. The deferral disposition specific to DSM balances.

MR. QUINN: DSM balances, thank you. That would have likely been more -- well, a later vintage of disposition.

Okay, so going on to 2014, there was still an allocation to T1 customers of a million dollars that was embedded in rates. I have that correct then in the third column?

MR. DIBAJI: Correct.

MR. QUINN: Okay. So what I'm trying to understand here is, if I'm reading your evidence correctly, there was a separation of programs such that T1 was considered more like M4, M5 customers, and served out of the resource acquisition budgets. Is that correct?

MR. DIBAJI: No, they were still served under the large volume programs.

MR. QUINN: So you were still providing large volume custom programs to T1 customers in 2014?

MR. DIBAJI: Specific to the program design in 2014, yes.

MR. QUINN: Okay. How about 2015?

MR. DIBAJI: Based on the direction in the framework, we are rolling over all of our programs.

MR. QUINN: So you're continuing to provide custom DSM offerings to T1 in 2015?

MR. GOULDEN: Mr. Quinn, maybe I could help?

With regards to the large volume custom program, they are still part of the large volume offering. But the range of programs that are available to T1s are different than that available to T2s rate 100s.

They're, in fact, the same as is available to all of the other resource acquisition custom programs customers. So they're in the pool called "large volume", but they're separate from the T2 rate 100, and the services available and the approach to market is different than the T2 rate 100s.

MR. QUINN: I think that is helpful, Mr. Goulden. What I'm concerned about is -- it is like they're neither fish nor fowl here.

We have T1 customers who are now going to be served more predominantly through resource acquisition. Yet, as we talked about at the outset, there are other offerings that Union provides to T2 customers that could be offered to T1 customers.

So how is it that Union is going to manage this transition in a way that T1 customers pay for what they get, and get what they pay for?

MR. GOULDEN: The T1 customers are not going to get any different services as we propose from 2016 to 2020 than they are right now.

They're just going to be captured on the resource acquisition scorecard, and the services that they receive currently and will receive in the future are exactly the same services as the other like customers, the M4s, the M5s, the M7s.

MR. QUINN: We ran into this yesterday with Enbridge. You may not have heard this, Mr. Goulden, so I will be hopefully precise with my recollection.

This change is not about eligibility criteria. It's more about scorecard performance? Would that be a fair assessment?

MR. GOULDEN: It's about capturing them on the appropriate scorecard, yes, that is correct.

MR. QUINN: But it does not affect their eligibility for an offering from Union?

MR. GOULDEN: No, it does not.

MR. QUINN: Okay. Well, that's helpful and comforting for our client, so thank you.

Okay. I am going to turn to a FRPO -- there's a question, but then a comment, and that will be all we need for this morning.

I appreciate you have answered our questions as FRPO, and I just -- my question simply is there is obviously -- and it is embedded in the questions asked, that there's collaboration between Enbridge and Union that's ongoing in terms of this evolution of DSM programs? Do I have that correct?

MS. LYNCH: That's correct.

MR. QUINN: And you're familiar with Enbridge's penetration of the private multi-family buildings in 2014?

MS. BROOKS: We're aware they have an offering in the market, yes.

MR. QUINN: And would you take it, subject to check, that there was more saved meters cubed in the private market than in the social and assisted housing market for Enbridge in 2014?

MS. BROOKS: I'm not aware of their results.

MR. QUINN: Would you take that subject to check? I'm offering that as a statement because it -- it is part of their evidence, but I'm not going to pull up their evidence and ask you to respond to it.

MS. BROOKS: Yes, we can take that, subject to check.

MR. QUINN: Okay, thank you.

So obviously Enbridge -- and kudos to their efforts in collaborating with the low-income group -- have made some progress, and I trust that Union is making some progress and we're encouraged by the metrics that have been placed before us for the private multi-family buildings.

So we want to encourage Union's continued development of that, and their collaboration not only with us, but with Enbridge, in terms of seeing whether we can do in the private multi-family building market.

So I will leave it at that for this morning. Thank you. Those are my questions, Mr. Millar, thank you very much.

MR. MILLAR: Thank you, Mr. Quinn. Mr. Wolnik?

# Questions by Mr. Wolnik:

MR. WOLNIK: Good morning, panel. John Wolnik representing APPrO. Can you hear me okay?

MS. LYNCH: Yes.

MR. WOLNIK: Great. I have a few questions just on some of the APPrO IR responses, and I wonder if you could look at APPrO 1 to begin with.

MS. LYNCH: Topic 3?

MR. WOLNIK: Yes, that's right. These questions kind of went to the incremental budget requirements you had identified. I think there were three different programs, the achievable potential study, the DSM infrastructure planning study, and the tracking and reporting requirements.

And I think in the response to (c), you talked about that the DSM tracking and reporting would -- you anticipate not using that for large volume customers. So I understand that.

And in response (d), which is really talking about, I think -- or asking about sort of the allocation of those costs; you said to see (c).

But in looking at how it appears that you have budgeted for that, it looks like it is in there today.

So am I right in assuming that when you actually go to account for these costs after the fact, that you will allocate the costs of the latter program away from the large volume customers?

[Witness panel confers]

MR. GOULDEN: We do allocate those -- we do allocate those costs in 2015, Mr. Wolnik. We don't anticipate allocating them in 2016 and beyond.

MR. WOLNIK: So when I -- when I look at table -- table 5, in Exhibit A, tab 2, on page 9, if you want to take a minute and look at that.

So looking right at the bottom, in line 14, in column B, it looks like you provided for the full amount to be recovered in 2015. Is that -- is that right?

MR. GOULDEN: Yes.

MS. LYNCH: We have allocated the 1.4 million in incremental budget for 2015.

MR. WOLNIK: Right. But as I look at -- as I look at the response to again APPrO 1(b), it talks about those programs not being completed. None of them would be completed in 2015. Is that right?

MS. LYNCH: They will all begin in 2015, but they will not be completed in 2015.

MR. WOLNIK: So what costs for the DSM infrastructure planning study will be allocated to the large volume customers in 2015? And I guess and why?

MS. LYNCH: Our understanding is that both the achievable potential study and the DSM infrastructure study will include aspects of large volume customers in them.

So in 2015, we have used the portfolio. It will be a portfolio cost and will be allocated accordingly.

MR. WOLNIK: So will you only allocate the costs you incur, or will you allocate the budget?

MS. LYNCH: We will ultimately allocate the costs we incur based on actual spending.

MR. WOLNIK: Okay. Thanks. Looking at APPrO 4, if I could turn you to that for a moment.

MR. GOULDEN: Do you have the topic for that?

MR. WOLNIK: T3. T3. You've got it?

MR. GOULDEN: Yes.

MR. WOLNIK: Okay. This question was really going to understanding how you arrived at the budget for the incentive/programs as well as the administrative costs, and I really didn't get an understanding of how you arrived at these costs.

I do know that, in APPrO 5, you talked about sort of two and a half full-time engineering staff to be dedicated to this program, so I understand those sort of salaries and costs, but I -- but I really didn't understand how you arrived at the rest of the costs and, in particular, I guess the administrative costs, or is the administrative costs the salary and -- the salaries

MR. DIBAJI: The administration cost is only covering the salaries and expenses.

MR. WOLNIK: Of the two and a half people?

MR. DIBAJI: Correct.

MR. WOLNIK: Okay. So that's helpful. So what's in the incentive and promotion, then?

[Witness panel confers]

MR. GOULDEN: Sorry, Mr. Wolnik, we're a little bit confused. Are you still on the earlier IR response?

MR. WOLNIK: APPrO 4, I think.

MR. GOULDEN: Okay. So the incentive and promotion --

MR. WOLNIK: Sorry, I guess this was referring back to table 25 in appendix -- or Exhibit A, tab 3, appendix A.

MR. GOULDEN: Are you getting the right reference, because I'm very confused?

MR. WOLNIK: And table 25 is on page 71, if that's helpful.

[Witness panel confers]

MR. GOULDEN: Just so we can be helpful to you, Mr. Wolnik, are you asking, with regards to table 25 at Exhibit A, tab 3, appendix A, page 71, what the incentives and promotion that are included in there?

MR. WOLNIK: Right.

MR. GOULDEN: Those are effectively the program delivery, so the technical support function and the seminars, et cetera we're providing to customers. Those are the costs associated with that.

MR. WOLNIK: Sorry, Bryan, I didn't hear the latter part of that.

MR. GOULDEN: Those are the -- the costs of delivering the program to the -- what we're spending to deliver the program to the customers. So it's the technical support incentives -- sorry, technical support seminars that we're providing to customers for training, et cetera. That's where that number comes from.

MR. WOLNIK: So can you just elaborate on how you arrived at these costs, then? Do you have a budget? like, more specifically, what's included?

MR. GOULDEN: It's --

MR. WOLNIK: Like, what is technical support? Like, you've already got the salaries of the people that are dedicated included in the administration cost as I understand it.

MR. GOULDEN: That's correct. So this would be -- for example, a big part of that would be the costs of providing seminars to those customers, the training we're providing to customers. Some of that will be provided by the two and a half Union Gas people.

Another significant portion of that is actually provided by external third-party providers. So the in-house training we're providing would be part of -- a significant part of that.

MR. WOLNIK: So did you actually have a detailed budget come up with that?

MR. GOULDEN: It's a -- it's a best estimate of what we believe the costs are, yes.

MR. WOLNIK: Okay. Can we -- can we look now to APPrO 5 in T5? And this really goes to the -- why you chose not to do the fee for service offering. And in response (a), you indicated it wouldn't be appropriate to develop a fee for service offering with a Board-approved regulated -- with Board-approved regulated rates when these services were already offered competitively in the marketplace.

Can you say why it's not appropriate? What is it in the act that makes it not appropriate?

MR. GOULDEN: As you are aware, we are -- we haven't acted in this market for a long time. We have a number of trade allies who may be external third-party consultants or providers of services.

Currently, we engage those or we encourage our customers to engage those parties to provide some of the support for the projects they're considering.

A fee for service offering would basically put us in a competitive position with those service providers that we have dealt with for a long time that do it quite effectively, so we didn't think that was appropriate.

MR. WOLNIK: So I understand it may -- there's competition out there, but I'm still not understanding why that's not appropriate. I mean, if they offer the service and you offer the service, isn't that part of the marketplace? I mean, you do that in several other areas now within the utility. Why is it not appropriate here?

MR. GOULDEN: We don't think it is appropriate for the reasons I identified. And in addition, given that we would be then offering a competitive service, we would need some kind of rate approved to provide that.

MR. WOLNIK: I guess what I'm getting out of this is it’s not appropriate because you're hiring third parties, and those third parties presumably could provide the service directly.

I mean, that's the sense I am getting from you, so it might cut you out of the loop here. So I am just trying to understand why that is not appropriate.

MR. GOULDEN: Well, it's not appropriate for the reasons I identified, Mr. Wolnik.

But maybe just to provide some clarity, where we interact in this market may be -- for example, consolidating assistance from this service provider and assistance from that service provider, that may be helping the customer pull together a package with regards to specific energy efficiency projects.

So it is not necessarily the case that an external third party service provider can, in fact, do exactly what we do. But they do some portion of that, and we don't feel it is appropriate for us to be competing with who were our former trade allies.

MR. WOLNIK: But if you are actually adding value along the route here, in terms of assembling the package and offering their services, I mean that is done all the time in business, is it not?

MR. GOULDEN: I'm not in that business, I can't say. I would assume it might be.

MR. WOLNIK: Okay. And later on in the third bullet point under (a), you talked about receiving -- reporting and receiving a performance incentive based on customer savings achieved as a result of fee-for-service consulting would constitute a potential conflict of interest for Union.

Could you expand on what you mean by the potential conflict of interest here?

MR. GOULDEN: The potential conflict of interest that we have some concern about is that right now, we are in the business of helping our customers, promoting energy efficiency to our customers.

If we were in a fee-for-service business, we don't exactly know what they would want for the fee-for-service. But it might not in fact be primarily based on promoting energy efficiency with our customers.

So we feel that that's not an area we want to get into, because it could conflict with our goals about promoting the energy efficiency.

MR. WOLNIK: But you could still restrict your service offerings to promoting energy efficiency, could you not, to achieve that goal?

MR. GOULDEN: Sure, we could.

MR. WOLNIK: So why would that be a conflict?

MR. GOULDEN: Well, we could do lots of things to limit what we're providing, Mr. Wolnik. We don't think that that’s got any value in the marketplace as a competitive offering from Union Gas.

MR. WOLNIK: But I think you talked earlier that services are already competitively offered. So if there's no value, why would that be -- why would those services be competitively available today?

MR. GOULDEN: You’ve got a lot of "nots" in there. Can you repeat what you're asking? You are getting me kind of confused.

MR. WOLNIK: Well, I get the sense that you're of the view that customers may not want this, the promotion of energy efficiency.

And yet earlier on, you talked about those services are already competitively available, which is one of the reasons you don't want to get into that market.

So it just seems not to hold for me. Why would it be a conflict of interest?

MR. GOULDEN: I think you're connecting the first point and the third point, and we didn't intend to connect the two of them, Mr. Wolnik.

What we're identifying is there is competitive services available. We don't want to be competing with who were our former trade allies. We don't think that offers a lot of value.

With regards to the conflict, that is another issue, the issue being customers in a fee-for-service type approach may want to do lots of things. The only thing that we see as being part of our role is promoting energy efficiency.

So we just feel that there is some potential conflict of interest, if in fact we go down the route of offering a broader suite of something called fee-for-service.

MR. WOLNIK: But you could offer -- you could offer services that just promote energy efficiency?

MR. GOULDEN: Yes, we could.

MR. WOLNIK: Thank you. If I could turn you to page -- Exhibit 8A, tab 3, appendix A, page 69? Could you just identify the IR? This is the evidence, it is the same APPrO five.

MR. SMITH: Still APPrO 5, thank you.

MR. WOLNIK: We're just talking about some of the costs here, and I just wanted to touch base on a revenue source here that I didn't see here in APPrO 5 -- or the budget, for that matter.

MR. GOULDEN: Page 69, did you say, Mr. Wolnik?

MR. WOLNIK: I think it is page 69.

MR. GOULDEN: Thank you.

MR. WOLNIK: I will have to admit I don't see it on the page here, as I scan it quickly. Maybe my reference was wrong. But perhaps I can just talk about it.

I think you talked in the evidence about charging for these -- for the various seminars you would put on, training seminars, you would charge an entrance fee to customers of about $100 per applicant. Is that right?

[Witness panel confers]

MR. GOULDEN: Yes, I see that.

MR. WOLNIK: And how was that taken into account in the budget?

MR. GOULDEN: I believe that is netted-off.

MR. WOLNIK: Could you undertake to just confirm that?

MR. GOULDEN: Yes.

MR. WOLNIK: Thank you, those are my questions.

MR. MILLAR: Sorry? There was an undertaking there?

MR. GOULDEN: Sorry, Mr. Wolnik, we just confirmed -- we can confirm that.

MS. LYNCH: We can confirm that; it was netted off.

MR. WOLNIK: I guess there’s no undertaking.

MR. MILLAR: That is it for you, Mr. Wolnik?

MR. WOLNIK: Yes.

MR. MILLAR: Thank you very much. Volunteers to go next? Mr. Elson?

# Questions by Mr. Elson:

MR. ELSON: Thank you. Panel, if I could ask you to turn up tab 3 Environmental Defence IR 8?

We actually submitted a written question for you further to this interrogatory, asking if you could provide Union's best estimate of the T2 gas commodity cost in 2016. Is that something you can do?

MR. TETREAULT: I think this is for me, Mr. Elson. No, I don't think we can do that. We don't forecast gas commodity costs, or gas commodity rates for rate T2 customers, as we mentioned in the IR response.

MR. ELSON: Now, I know that you don't typically forecast it. But is there some sort of -- I don't understand what the actual impediment is to making a best estimate.

MR. TETREAULT: I think what I can offer are our current approved gas commodity rates. I have that information with me.

Our per our April 2015 QRAM, our gas commodity rate in the south is approximately $112 a 103.

MR. ELSON: But that's not for your large volume customers?

MR. TETREAULT: No, those customers are direct purchase customers. They manage their own commodity and upstream transportation, so we wouldn't know what their gas costs are.

MR. ELSON: Do you have any data on what their gas costs are?

MR. TETREAULT: No, I don't.

MR. ELSON: That doesn't flow through you at all?

MR. TETREAULT: No it doesn't.

MR. ELSON: So you couldn't provide a best estimate for what the commodity costs for large volume customers is at all?

MR. TETREAULT: No, that's correct.

MR. ELSON: Okay. I will move on to -- still in tab 3, ED 12. And you actually don't even really need to turn up the interrogatory.

I'm wondering if you can provide the cumulative net TRC benefits since the beginning of Union's DSM programs that would be net of free ridership. And the reason I ask for this is that Enbridge has provided that number.

They have provided $2.4 billion, and so it would be helpful if you could also provide that number.

MR. DIBAJI: I would ask that you turn to our response to GEC 1, attachment 1 -- sorry, topic 13. And in that attachment, you will see the cumulative net TRC benefits.

MR. ELSON: And can you confirm that -- I think it is just getting pulled up on the screen here.

MR. DIBAJI: So it would be that first column.

MR. ELSON: And can you confirm that that number would be net of free riders?

MR. DIBAJI: Correct.

MR. ELSON: Thank you. Could you turn to IR 15, still in topic 3? In part (b) of the response, you referred to a 2008 custom projects attribution study.

Would you be able to provide an undertaking to file a copy of that study?

MS. LYNCH: Yes, we can do that.

MR. ELSON: Thank you.

MR. MILLAR: That will be JT2.1.

UNDERTAKING NO. JT2.1: TO FILE A COPY OF THE 2008 CUSTOM PROJECTS ATTRIBUTION STUDY

MR. ELSON: In part (d) of the interrogatory, we asked for an estimate of the gas savings that would have been achieved by Union's large volume customers absent its DSM programs, and I'd like to ask you some further questions relating to that idea.

The -- I understand from this interrogatory response that the free rider rate that you would apply to these projects is 54 percent. Is that right?

MS. LYNCH: That's correct.

MR. ELSON: And I also understand that, just for the sake of taking an example, in 2013, the net TRC benefits from large volume customers was $252 million, subject to check. I can give you the reference in the evidence if you need to double-check that.

MS. LYNCH: Could you provide the reference?

MR. ELSON: It's Exhibit A, tab 3, appendix B, page 200. That's Exhibit A, tab 3, appendix B, page 200.

MS. LYNCH: Yes, I can see their number.

MR. ELSON: And so that is the net TRC benefits from large volume in 2013. Is that right?

MS. LYNCH: That is correct.

MR. ELSON: And that would account for free riders?

MS. LYNCH: That is net of free riders, yes.

MR. ELSON: So can you derive from that number, knowing that you apply a free rider rate of approximately 54 percent, what would have -- what the benefits would have been but for your programs?

MS. LYNCH: We can derive the benefits based on the savings calculations that we do in the program.

There are other factors that would influence what a customer may do in addition to -- to what we include in our program.

There's other items, such as spillover for other programs that they may do or other ideas that they may undertake.

MR. ELSON: I guess I can phrase the question differently. This -- this number assumes that a number of the benefits that flowed from your program would've been achieved anyways and has netted those numbers out. Is that right?

MS. LYNCH: Correct.

MR. ELSON: Can you provide us with the numbers that would have been netted out?

MS. LYNCH: We can provide you with the gross number that is -- doesn't take into account free ridership. Yes, we can do that.

MR. ELSON: That's right. And the difference between those numbers would represent your estimate of what would have occurred had there not been the programs. Is that right?

MS. LYNCH: The estimate based on what -- what projects were put through our program.

MR. ELSON: Okay. Thank you.

MR. MILLAR: So that's a new undertaking?

MR. ELSON: Yes.

MR. MILLAR: JT2.2.

UNDERTAKING NO. JT2.2: UNION TO PROVIDE THE GROSS TRC NUMBER

MR. ELSON: And we have no further questions. Thank you.

MR. DIBAJI: For clarity, what years were you looking for?

MR. ELSON: 2013 would be fine.

MR. MILLAR: Okay. Thank you, Mr. Elson. Who's next?

MR. JANIGAN: I wonder if I could jump in here, Michael Janigan for VECC.

MR. MILLAR: Go ahead.

# Questions by Mr. Janigan:

MR. JANIGAN: I've got to check -- I've got to check out of my hotel this morning, so I thought I'd try to get my questions done.

Can I turn your attention to Exhibit B.T5.Union interrogatory from GEC, number 48? And this concerns administrative costs, including part-time employee salaries and expenses.

My question is: Does Union anticipate overtime costs in the 2015-2020 period, as a percentage of employee costs, to increase over the DSP time frame by year?

In other words, between 2015 and 2020, and these costs would increase in order to roll out the plan.

[Witness panel confers]

MR. DIBAJI: Mr. Janigan, this is Mr. Dibaji. We anticipate an increase between 2015 to 2016 and then a consistent administration cost between 2016 and 2020.

MR. JANIGAN: Okay. Is it possible to get a -- the figures for the annual percentage of overtime from 2011 to 2014 actuals and the 2015 to 2020 forecast?

[Witness panel confers]

MR. MILLAR: Mr. Goulden, you are being picked up, just so you know.

MS. LYNCH: Just -- just for clarity, the costs that we're outlining in our plan are the administrative costs. The portion of that that would be overtime would be very, very small.

MR. JANIGAN: Okay. And can you give the figures for the actuals from 2011 to 2014 and the forecast from 2015 to 2020 as an undertaking?

[Witness panel confers]

MR. JANIGAN: Or are you saying those figures wouldn't be material?

MS. LYNCH: The forecast for the plan, the administrative components are included in the materials we've provided.

MR. JANIGAN: Yes.

MS. LYNCH: They are outlined, for 2015, in Exhibit A, tab 2, page 7.

MR. JANIGAN: Okay.

MS. LYNCH: And, for 2016 to 2020, in Exhibit A, tab 3, page 6.

MR. JANIGAN: Okay. And what does Union charge for overtime? Is it double time?

MS. LYNCH: It would be specific to the employee that would we would be incurring the costs for.

MR. JANIGAN: Okay. And management staff are not entitled to overtime, or are they?

MS. LYNCH: They are not.

MR. JANIGAN: Okay. Thank you. I wonder if I could turn your attention to Exhibit B, Tab 10, Union interrogatory from Staff No. 29?

In this interrogatory, Union proposes to capture any unused approved DSM budget eligible for carry-forwards in the next year in a tracking account.

My question is: What happens to the balance in the tracking account at the end of the DSM plan in 2020?

[Witness panel confers]

MR. TETREAULT: Mr. Janigan, it is Mr. Tetreault.

At the end of the DSM plan, any amounts in that tracking, if not spent, would be refunded to ratepayers via the DSM VA.

MR. JANIGAN: Okay. Thank you.

I wonder if I could turn your attention to VECC Interrogatory No. 5, Union Exhibit B, T11?

In part (a), the question is asked for Union to explain why it will not be having ongoing discussions on potential areas of alignment with LDCs as they develop their CDM plans.

And the response says that Union is having ongoing discussions with LDCs, but the LDCs have indicated they are not in a position to have a meaningful discussion until their CDM plans have been approved by the IESO.

My question is: If the LDCs' plans have been submitted for approval -- and I wonder if you could help us understand the timing and opportunity for collaboration between the Union and LDCs -- isn't it too late at that point?

MS. LYNCH: No. I expect that conversations will be ongoing.

The LDCs have submitted their plans, which for 2015, are largely a rollover.

Through the working groups, they're currently have having the discussions of what new approaches they may take to program areas.

And Union has joined those working groups. So we are active in those discussions.

MR. JANIGAN: So in fact there are meaningful discussions taking place that can't be finalized until their current plans are approved by the IESO. Is that what you're saying, essentially?

MS. LYNCH: Yes, they would need their plan approved. They would also need any changes to their program rules that they're putting forward to be approved through the IESO process.

MR. JANIGAN: Okay. In part (b) of that question, the question was asked for Union to comment on any opportunities that may exist to share resources between Union and the electric LDCs.

And the response says:

"Integration of third party vendor costs with Union's low-income and planned Aboriginal programs are opportunities to share resources. Coordination of dual-fuel pilot projects is another opportunity to share research and evaluation costs."

I am a little uncertain what that answer means. Could you elaborate a little further on that?

MS. LYNCH: Yes. To the extent that we are using a third party delivery agent and could have programs jointly delivered, that would be a way that we could be sharing vendor costs and resources.

In addition, for pilots, to the extent that we can coordinate pilot opportunities where there's multi-fuel opportunities, that would be another way that we could share in costs, whether it be research, pilot-related or otherwise.

MR. JANIGAN: Okay. With respect to BOMA interrogatory 8 at Exhibit B.T11, this response provides barriers that are impeding collaboration of DSM and CDM.

The barriers that are impeding collaboration of DSM and CDM include the number of electric LDCs in the Union franchise area, the timing of planning approvals, budget levels, program alignment, and differences in areas of focus, and funding available for collaboration on pilots.

Can you briefly review how Union plans to overcome these barriers to increase collaboration?

MS. LYNCH: Certainly from the number of LDCs, we are taking a targeted approach to ensure that we're working with some of the largest ones in our area first.

From a timing of plans, that's just in progress. So that will ultimately depend on when both the LDCs as well as our plan is approved.

And through the working groups, we're having discussions around budgets, program alignment and those items. So that would be the key avenue for us to talk about some of the specific program differences and approaches.

MR. JANIGAN: Okay. And following that, the things like budget levels, program alignment, and collaboration fall in place as a result of those kind of discussions. Is that the case?

MS. LYNCH: That's our expectation, yes.

MR. JANIGAN: Okay. Thank you very much. Those are all of my questions.

MR. MILLAR: Thank you, Mr. Janigan.

Who would like to go next? Ms. Fraser?

MS. FRASER: Sure.

# Questions by Ms. Fraser:

MS. FRASER: Thanks very much to your response to our interrogatory OSEA 1. I appreciate the time you took to indicate the different areas in which sustainable energy kinds of things are included in your programs.

Back in 2009, when your mandates were revised to include things like solar thermal, ground source heat pumps, and so on, Enbridge, due to the timing of its rate case at the time, moved very quickly to try to integrate this, and was similarly unsuccessful because it kind of disappeared.

I'm just wondering what has transpired in Union relative to those changing -- those changes in mandates, and are there opportunities to include things like solar thermal and ground source heat pumps, and other sustainable initiatives?

I mean you are doing CHP and so on, which is great. But, you know, to look at these additional things, some of which obviously are -- become more important with the 15 percent adder for greenhouse gas emission reductions, there are environmental benefits, but also the potential for cross-fuel if you will, or electric and gas, some kind of joint TRC analysis, because obviously -- certainly ground source heat pumps, you know, are an amazing improvement in electric cooling kinds of things.

So I am just wondering if this is on your horizon or not.

MR. GOULDEN: I think I heard a couple of questions there, Ms. Fraser, so I will try to deal with them as I heard them.

MS. FRASER: Yes.

MR. GOULDEN: With regard to the expanded undertakings you're referring to, we haven't seen that that is necessarily an opportunity yet for Union Gas. So we're not pursuing anything specifically in that regard right now.

With regards to new technology, similar to the response I think you heard yesterday from the Enbridge panel, the real challenge is around, quite frankly, payback, and many of those new technologies, while exciting, are cost prohibitive.

So we don't see -- although we continue to look, we don't see there is any specific opportunities right now that we're not pursuing.

MS. FRASER: Have you done TRC analysis for either solar thermal or ground source heat pumps?

MR. GOULDEN: We haven't got to that stage.

MS. FRASER: Okay, thanks, those are my questions.

MR. MILLAR: Thank you, Ms. Fraser.

Who would like to go next? Anyone on the phone want to have a go? Randy, are you still there?

MR. GARDNER: Michael, it is Matt Gardner for LIEN, if that works.

MR. MILLAR: That would be great, thank you.

# Questions by Mr. Garner:

MR. GARDNER: I'm going to go off the speaker phone -- hold on one sec. That might be better.

I'm going to do what I did yesterday to save time, and also because our questions, some of them, are quite technical and probably need answering or review after this -- this technical conference today.

So I'm going to refer the panel to our letter of last week, July 2nd, and on pages 1 and 2 of our letter, we have four questions under the heading of Union.

And so this is a request for an undertaking to make best efforts to answer questions 1, 3, and 4 in writing.

MS. LYNCH: We can provide the answers.

MR. GARDNER: Thank you.

MS. LYNCH: Sorry, we can provide the answers now.

MR. GARDNER: Oh, okay. That works.

MS. BROOKS: So for LIEN question -- it's Tracy Brooks speaking. For LIEN Question No. 1, where you asked the anticipated geographic rollout for 2015 through 2020, so from 2016 to 2020, Union anticipates to move into 30 new territories for our single-family offering.

And for our multi-family offering, we continue to have franchise-wide -- we continue to have franchise wide coverage of the territory because we deliver that through our commercial account managers, who cover Union's franchise area.

MR. GARDNER: Okay. For the single family, the 30 new territories, can we get specifics on where those are?

MS. BROOKS: Yes, we can provide those.

MR. GARDNER: Okay. Perhaps that's an undertaking.

MR. MILLAR: Yes. So we're now at JT2.3.

UNDERTAKING NO. JT2.3: TO PROVIDE SPECIFICS ON WHERE THE 30 NEW SINGLE-FAMILY OFFERINGS WILL BE LOCATED

MR. GARDNER: Thank you.

MS. BROOKS: So question 2 is in reference to...

MR. GARDNER: I can expand on this one. This wasn't one for a take-home, so perhaps I can go into a bit of a preamble to explain it.

So our question here --

MR. SMITH: Alex Smith, just a quick clarification. I think there's a little bit of confusion in the room about whether -- which question in your letter you're referring to right now.

MR. GARDNER: I'm sorry. It's -- it's literally question 2:

"So further to Union's responses to LIEN's IR 6, why is Union not able to quantify the cost of liability insurance or the cost of repeat visits?"

So if you flip to -- let's -- because I think we can deal with that now as well. If you flip to our IR 6, which is at tab 5.

MS. BROOKS: Yes, I have that.

MR. GARDNER: At (a), there's a bit of a contradiction. I just want to go through (a) and (c), your answers to (a) and (c).

So in (a) it says:

"Kitchen and bathroom aerators are not to be directly installed but instead are to be self-installed because of the cost of liability insurance for delivery and the potential repeat visits."

And then in the answer to 6(c), Union states that Union is unable to quantify the costs associated with the liability insurance or the costs of repeat visits.

So in (a) you're talking about the costs as being the -- the prohibitive factor in being able to do the analysis, but then in (c) you're saying you can't quantify the costs.

So I just need a little bit of help on why there's, in my view, a contradiction between (a) and (c).

MS. BROOKS: So for question (a), we have not directly installed aerators in the past due to our discussions with delivery agents who believe that the cost of liability insurance would be not proportionate to the -- the installation of these measures.

We can -- have asked our -- based on your -- your questions, we have asked our delivery agents to provide us with the costs of the liability insurance, but we have not received those costs yet from them.

MR. GARDNER: But it is forthcoming?

MS. BROOKS: It is forthcoming.

MR. GARDNER: So if we could get an undertaking to have those answers when they arrive, hopefully within the context of this hearing --

MS. BROOKS: Okay.

MR. GARDNER: -- when the delivery agents provide their cost -- yeah, their costs for liability insurance premiums to deliver.

MS. BROOKS: Yes, we can provide an undertaking on that.

MR. GARDNER: Thank you.

MR. MILLAR: JT2.4.

UNDERTAKING NO. JT2.4: TO PROVIDE THE COSTS OF LIABILITY INSURANCE THE DELIVERY AGENTS WOULD INCUR

MR. GARDNER: Do you know why it is that liability insurance for those types of direct installs would be any different than other direct installs, like showerheads? I'm just wondering why it is that it's so difficult for those two particular direct install measures to be quantified or if they're so costly versus others.

MS. BROOKS: I don't have that information.

MR. GARDNER: Okay. What about quantifying the costs for repeat visits?

MS. BROOKS: We would have to look to see whether there are other utilities in other jurisdictions who have that -- who do do a direct install on these types of measures, but we don't have that information currently available.

MR. GARDNER: Okay. And that's because Enbridge is doing -- they're not doing -- I learned this yesterday. They're not doing direct installs for kitchen and bathroom aerators; they're doing leave-behinds. Right?

MS. BROOKS: That's my understanding.

MR. GARDNER: Okay. So I guess we can go to questions 3 and 4 in our letter, if you have answers now.

MS. BROOKS: Yes, I do. For question 3, that relates to LIEN IR No. 7, so we will continue to support social service agencies through webinars, single-page information handouts, brochures, presentations, and information sessions at local community events.

So all of these tools make it easy for social service agencies to promote our home weatherization program, so our single-family program.

We've also tried to streamline processes in order for social service agencies to communicate with us. So rather than multiple points of contacts, we've established a single mailbox that allows a social service agency to communicate leads or request information on the offering in conjunction with information they are seeking on winter warmth.

We have also recently received requests from United Way and Ontario 2-1-1 for financial assistance to provide compensation for the administrative costs associated with promoting the offering, and we have initiated these discussions to understand the process flow and costs involved in order to explore a mutually beneficial financial model.

MR. GARDNER: Okay. And for (b), the actual sessions themselves, do you have those worked out? And with which agencies do you intend to have those sessions?

MS. BROOKS: I think that's still to be determined.

MR. GARDNER: Can we get an undertaking -- when do you think that they'll be determined for the -- I don't know -- for the whole rollout of the programs, I suppose, 2016 to 2020?

MS. BROOKS: It wouldn't be during the course of this proceeding. These will likely be decided on an annual basis through discussions with the various social service agencies and their identified needs.

MR. GARDNER: Okay. Thank you. Four is a bit confusing, I must confess.

It's -- I think what we're trying to ask here, although I know that you've answered our interrogatory 9 already and you've linked -- given some information about direct and indirect benefits in response to Board Staff's IR -- I think it's 20, I believe.

MS. BROOKS: Yes. It's topic 5, Board Staff 20(c).

MR GARDNER: Correct. Right. Thank you. So is that -- is that what your answer would be to our No. 4? Because I think what we're asking is for a little bit more of a -- of a typical scenario. You're addressing direct and indirect benefits in your answer to Union's -- sorry, to Staff's 20. We want to know what the typical direct, indirect benefits are, not necessarily financial and non-financial, but what measures typically you will be offering in the low-income market rate multi-family retrofit program.

MS. BROOKS: So just to clarify, are you seeking information on the types of technologies we will typically install and the benefits of those specific technologies?

MR. GARDNER: Right. Correct.

MS. BROOKS: So we do provide -- in topic 5, Board Staff 20(c), there are some examples of technologies, such as boilers, make-up air units, which we've linked to a more comfortable environment, better heating of the living spaces and more consistent -- a reliable supply of heat, hot water, and/or fresh air.

MR. GARDNER: Right.

MS. BROOKS: We also have identified building envelope projects, such as windows, air ceiling insulation, and wall cladding to provide a warmer, quieter, less drafty, and more comfortable living space. And then we will also be providing the conservation measures, such as showerheads and aerators as well as tenant education.

MR. GARDNER: Okay. Thank you.

So I think what LIEN is interested is: Is there within all of those -- and maybe there are more measures that you are still considering -- which of those would be direct benefits that benefit low-income tenants directly?

For example, my understanding -- and I could be wrong in this -- is that for the most part in a multi-residential situation, the landlord would be covering the costs for water, for aerators and showerheads, or recouping the costs.

Enbridge yesterday confirmed that they are installing -- Novitherm is the product or the company -- heat reflectors, at least for hot water heating units, and they are going to get back to us on whether those would also apply to --- if there is a similar product out there for the non-hot water heating tenants out there -- you know, HVAC, air duct, convection.

So has Union included, or thought about those in its suite of measures, heat reflectors or something like that, where I think that that would directly benefit the tenant because that would be a bill mitigation measure, direct to the tenants?

MS. BROOKS: So you're seeking clarity on what types of measures we could actually install in suite?

MR. GARDNER: Correct, that would directly benefit low-income tenants and mitigate their bills, as opposed to the landlord's bill.

MS. BROOKS: I mean, it depends whether you're trying to identify financial or non-financial benefits.

In most of our circumstances, our multi-family buildings are centrally metered.

I believe we have identified that 8 percent of our buildings are not centrally metered, so it is a very small percentage.

I also believe we have a very small percentage of radiant heat in our territory, which would be directly related to Novitherm panels.

At this time, my understanding is that the only in suite measures we're looking at at this point would relate to the showerhead and aerators. But I can confirm further that we've looked at other measures as well.

MR. GARDNER: Okay. And it sounds like specifically -- I know it is a difficult task, but it sounds like specifically Enbridge has looked into the heat reflectors, particularly these ones by Novitherm.

So if that is something that you've looked at or are considering, perhaps we can get an undertaking on that.

[Witness panel confers]

MS. BROOKS: So even in the case of the Novitherm panels, it would not consist of direct financial benefits in that scenario either.

MR. GARDNER: Unless it is within the non-metered?

MS. BROOKS: Correct, and if it was in an individually-metered building, which as I mentioned prior, is a very small portion of our multi-family buildings.

MR. GARDNER: Well, it is 8 percent. Is that something that Union might consider even for the 8 percent?

[Witness panel confers]

MS. BROOKS: Union has looked into Novitherm panels in the past, and we do not incent those measures at this time.

MR. GARDNER: You're not willing to, as part of this program?

MS. BROOKS: It's not our intention to do so, no.

MR. GARDNER: Okay. Those are my questions, thank you.

MR. MILLAR: Thank you, Mr. Garner. I think, unless someone has ten minutes or less of questions -- does anyone fall into that category?

Not hearing anyone, we will take our morning break, and we will come back at ten after 11. Mr. Smith?

MR. SMITH: Sorry, could we do 11:15? That is when we discussed bringing in the next panel.

MR. MILLAR: Let's do that, yes. 11:15, thank you.

### --- Recess taken at 10:55 a.m.

### --- On resuming at 11:16 a.m.

MR. MILLAR: Are we ready to go? Welcome back, everyone.

Mr. Poch, we'll turn it over to you. We actually have a new panel now, so perhaps Mr. Smith could introduce the new panelists, and then we'll turn to Mr. Poch.

# UNION GAS DISTRIBUTION INC. - PANEL 2

**Tracy Lynch**

**Michael Sloan**

MR. SMITH: Tracy Lynch again and Michael Sloan.

MR. MILLAR: Thank you.

Mr. Poch, are you prepared to proceed?

MR. POCH: I believe -- I believe I am. Is Mr. Chernick on the line? I think he's going to make --

MR. CHERNICK: He is.

MR. POCH: Great. I'll be calling on you undoubtedly.

# Questions by Mr. Poch:

Can you turn up -- this would be the avoided costs, tab 9, for the next few questions, and it's GEC 17. This is where you're explaining how you took Enbridge's 2 percent estimate for avoided costs and massaged it to using for your load shape, load make-up. Just a couple of questions coming out of that.

You've applied it to 2013. That would've included -- is my understanding correct? That would've included when you were still doing -- a large amount of your DSM was aimed at the industrials, but for this next period, that's going to change. How have you -- how have you dealt with that in your -- in your massaging, if you will?

MS. LYNCH: At this stage, we've used the 2 percent as our estimate that we will use in -- for the duration of the plan. However, we have noted that our expectation is that this will be an area that will be studied further within our DSM infrastructure and planning study.

So we would expect that that would be assessed there, and any changes would be applied once they're known.

MR. POCH: So my assumption is correct, though, that you used the 2013 split in your customer groups to -- savings profiles, rather, to apply these -- this -- Enbridge's numbers. And so that does not yet take into account the fact that you'll be doing less large industrial?

MS. LYNCH: We've done it as we've outlined in our response to GEC 17(b), where we've shown the derivation of it, the 2 percent, in attachment 1, just for clarity.

MR. POCH: Yes. Okay. I'm just confirming you did it on the load profile of the savings from 2013, and you're going to have to -- presumably, this will evolve as -- as your load profile of savings is now going to change?

MS. LYNCH: Yes. And as we have better information available.

MR. POCH: And just for my simple understanding, you're probably going to see, for example, more space heating have an impact on this and less base load as you move away from industrial and more into residential and so on?

MS. LYNCH: Yes, that would be correct.

MR. POCH: Okay.

MR. CHERNICK: David, can I ask a little follow-up on that?

MR. POCH: Please jump in. Let me just -- for the reporter, this is Paul Chernick who is assisting me.

MR. CHERNICK: On the three load shapes, do you screen measures or programs separately for the three load shapes, or do you just use a single avoided cost for -- for all measures?

[Witness panel confers]

MR. CHERNICK: I didn't think that was going to be a difficult question.

MS. LYNCH: I just wanted to clarify that, in our evidence, you'll see it specific to 2015 in Exhibit 8, tab 2, appendix B, that we do do avoided residential commercial on a base load and a weather sensitive, and, as well, we do an industrial.

MR. CHERNICK: Okay. Was there a specific reason for averaging out the T&D for those three load shapes rather than using a T&D value for each of the three? For having the weather sensitive, you come up with 4.3 percent or something and using that for the weather sensitive and the 2 percent. Was there a particular rationale for doing that?

MS. LYNCH: Just confirming if there was a reference, but, again, as we've outlined in GEC 17 response, it's an estimate that is a weighted average of the three --

MR. CHERNICK: Yes. Okay. And you're saying you don't really have a specific reason for having done it that way as opposed to -- for everything else you use load shape specific values for commodity and so on.

But for the T&D, you've average them out. And there's no particular reason for doing that?

MS. LYNCH: No. No. It's a proxy to be used at this point.

MR. CHERNICK: Okay. And you note in -- oh, did you want to take over at this point?

MR. POCH: Well, I can carry on, Paul, and just interject as -- as necessary. I was just going to turn to another part of that question where you referred to your -- the older values you had found for the split between commodity related and capacity related avoided costs and numbers in the 28 to 37 percent range, depending if it was north or south, as opposed to the 2 percent that Enbridge has generated. Quite a difference in -- you've indicated you just felt these were -- this was quite an old analysis.

Was there any other analysis done at this time to look at the dramatic difference there and analyze the strengths and weaknesses of the two different approaches, or is that the extent of it?

MR. SLOAN: Perhaps I can be helpful here.

MR. POCH: Please.

MR. SLOAN: The reference to the 1997 study was actually a reference to an ICE or rather an EEA study authored by Dr. Michael Lerner and myself, and so I'm somewhat familiar with those numbers and that study, although it is 18 years old or so at this time.

In that study, the capacity breakdown included the pipeline capacity costs outside of the franchise, so upstream of the service territory, as well as the infrastructure inside of the service territory.

And in the current Union Gas avoided cost structure, of course, those upstream pipeline capacity costs are not included in the facilities component of the avoided cost, that 2 percent.

So the largest component of the capacity costs from that old study are already accounted for in the energy cost analysis of the Union Gas study and not -- would not be appropriately included in the T&D cost component.

MR. POCH: So let me just follow up on that; and, Paul, I might need you here, but it seems to me, even if the upstream transmission capital costs that could be avoided are rolled as a matter of billing and show up in people's commodity charge -- they're rolled into the energy rate -- would they nevertheless be -- there would still be an avoidable cost there that ultimately would be enjoyed by all customers, not just this particular commodity user, DSM participant. Correct?

MR. SLOAN: The pipeline capacity costs that might be avoided would be spread across all users within the rate classes, as the costs are allocated to within the Union Gas cost of service.

MR. POCH: And these values, I appreciate, have moved around a bit. But the 28 and 37, would that be the order of magnitude you would still expect, if you were to redo that analysis?

MR. SLOAN: No. I think there would be less now because at that time, most of the capacity or most of the supply was coming out of western Canada on the TransCanada system.

And so the pipeline costs made up a bigger component of the total energy cost at that time.

MR. POCH: Okay, point well taken. I assume, though, that we would certainly be talking about numbers significantly bigger than the 2 percent, if we were to capture that.

But as you've indicated, it is captured in the commodity. Is that fair?

MR. SLOAN: That's correct. That's fair.

MR. CHERNICK: And do you still have that 1997 study?

MR. SLOAN: I do. I had to ask Union Gas for a copy of it, because I did not have it. But Union found it for me earlier this week.

MR. POCH: I guess the next question is obvious: Can we get a copy, please?

MR. SLOAN: I don't know. You will have to ask Union.

MS. LYNCH: Yes, we can provide that.

MR. MILLAR: JT2.5.

UNDERTAKING NO. JT2.5: UNION TO PROVIDE A COPY OF A EEA STUDY BY MR. SLOAN AND DR. LERNER

MR. POCH: Thank you.

MR. CHERNICK: Do you recall, does that provide a breakout between the local T&D infrastructure and the upstream supply?

MR. SLOAN: There was some attempt to look at the local upstream. I did not review it in enough detail to tell you today what it is, so --

MR. CHERNICK: We will find out when we see it.

MR. SLOAN: Yes.

MR. CHERNICK: Thank you.

MR. POCH: I just had one other question on this interrogatory, subject to what Paul might have.

In the schedule, in the attachment there is a table, and we just wanted to make sure we had -- could get the right units for each column.

Can you tell us now or just undertake, whatever is easier? Are these nominal dollars per 103 m3 for example? If you need to go back and check, that’s fine.

MS. LYNCH: I will need to confirm that.

MR. POCH: Let’s get an undertaking to clarify what the units are, whether they’re nominal or real, what have you.

MR. MILLAR: JT2.6.

MR. POCH: Thank you.

UNDERTAKING NO. JT2.6: TO CLARIFY THE UNITS, WHETHER THEY ARE NOMINAL OR REAL; to clarify whether the costs are avoided T&D or just D

MR. MILLAR: Paul, unless you have anything else --

MR. NEME: David, this is Chris.

MR. POCH: Yes, go ahead Chris Neme.

MR. NEME: One other clarification; in these columns in the attachment it says avoided T&D costs. Is it really just avoided T?

MR. POCH: Right.

MR. NEME: Just for clarification, given the conversation we’ve just had?

MS. LYNCH: We will confirm that as part of the undertaking.

MR. POCH: Yes, because as I recall -- I don't have it in front of me, but the answer refers to Enbridge's less transmission, so presumably that is correct. But, yes, we would like a confirmation, thank you.

And just to close that loop, is it possible to breakout, in your current commodity avoided costs, what proportion is attributable to transmission? We just don't want to -- we want to look at -- I’ll tell you where we're going.

We want to look at these avoided costs that are enjoyed by all customers, participants and non-participants, as that is important for the rate impact question. And I just want -- we don't want to double count. Is that something that would be apparent somewhere?

[Witness panel confers]

MR. POCH: Let me just add, before you even begin your answer, I assume that tolls are included in your commodity cost, avoided costs, but that wouldn't capture future capital costs avoided on the transmission side.

So I just don't know if you have captured that and, if so, where we could see it.

MR. SLOAN: Are you asking about potential facility expansion projects on upstream pipelines?

MR. POCH: Yes. Is that captured anywhere in avoided costs, basically? And if so, is it broken out anywhere?

MR. SLOAN: Well, I believe that the guidelines from the Board in terms of avoided cost indicate that the utility should not be looking at specific facility investments upstream of the city gate. So in that sense, no.

In terms of the costs associated with pipeline capacity, those definitely are included in the avoided costs calculation, and that's part of what the SENDOUT model is used to calculate, the difference.

Now, having said that, the rates and the costs associated with that would be the current tolls.

MR. POCH: Right. So they're not taking account of future capital projects upstream transmission.

MR. SLOAN: They're not taking into account --

MR. POCH: Just what’s embedded in tolls.

MR. SLOAN: -- future capital investments or depreciation, or changes in the pipeline system overall.

MR. POCH: I think I've got it, thank you.

GEC question 21 is next in my list, same tab.

Paul, I might ask you to drive this one.

MR. CHERNICK: If we can start with part (g) -- and this sort of ties into what you were just discussing with David.

In (g)(i), you say "avoided variable commodity, storage and transmission pipeline costs". Does that mean only variable pipeline costs, only the commodity portion of the charges? Or does it also include capacity for pipeline and storage?

[Witness panel confers]

MR. SLOAN: The costs include all of the variable costs.

Because the pipeline tariffs are annual and would be reduced if the requirements for that capacity was reduced, those are considered variable costs for this analysis and are included.

So the pipeline tolls are included in the analysis, and storage tolls outside of the Union franchise territory also would be included as variable costs.

MR. CHERNICK: And what about the Union's Dawn storage? Does Union distribution buy space in that from the merchant part of the company? Or is that an allocation that's done each year, depending upon how much the distribution operation is using? How is the in-service territory storage allocated between Union Distribution and other users?

MR. SMITH: This is Alex Smith from Union. Mr. Tetreault happens to be here and while he's not immediately on the panel, I think he may be of assistance.

MR. TETREAULT: Sorry to ask a question, but I just want to make sure I understand the nature of the question. I think the original question was whether Union Distribution buys storage from Union's merchant storage business?

MR. CHERNICK: Well, yes. I just -- I don't understand how you determined what part of the Dawn storage costs are going to be paid by Union's distribution customers and, you know, for that matter, how much of the Dawn to Parkway transmission system is going to be paid by Union Distribution.

And I just want to be clear on -- on whether, when we're talking about outside the service territory and inside the service territory, that we captured all of the pieces and I just understand what you're doing.

MR. TETREAULT: With -- with regard to storage, there is 100 PJs reserved for utility requirements, and regulated ratepayers pay for the portion of that 100 PJs that they use, that they require.

The same is true for the Dawn to Parkway transmission system. That is a utility transmission cost. And it's paid for by both in-franchise and ex-franchise ratepayers, based on how they use that transmission system.

MR. CHERNICK: So if Union's distribution load goes down and you're using the Parkway to Dawn line or various parts of it, less than the distribution company -- the distribution operation winds up paying less for the pipeline?

MR. TETREAULT: I don't know that I would describe it -- there really isn't a distinction between Union's utility storage operation and Union's distribution business.

It's an integrated -- an integrated operation, as you -- as you would expect. But to the extent that certain ratepayers or certain rate classes are using the Dawn to Parkway system differently than they have based on current approved cost allocation and current approved rates, that would, in the future, at a cost of service type proceeding, change the allocation of those costs and the recovery of those costs in rates.

MR. CHERNICK: Okay. So is that -- is that something that you do every time you file a general rate case with OEB?

MR. TETREAULT: Yes. It happens as part of a cost of service proceeding. We obviously don't do that during the course of our incentive regulation framework, but when we rebase at the cost of service, that is an exercise that's untaken.

MR. CHERNICK: Okay. And the 100 petajoules that are reserved for -- of storage that are reserved for the regulated business is -- can the regulated business release that to the market, or is -- the regulated business has to pay for it no matter how it's used?

MR. TETREAULT: There is -- so utility ratepayers pay for the portion of the 100 PJs that they utilize. Right now they require less than the full 100 PJs, and so Union has the ability to sell, typically on a short-term basis, what we would call the excess utility storage space.

And then there is a -- there is a sharing of that margin with -- with utility ratepayers through -- through both ratemaking and through a deferral account mechanism.

MR. CHERNICK: Okay. So to the extent that, let's say, space heating load is lower in your service territory and you use storage less and more of that is sold off system on the Dawn to Parkway less and are allocated less of those costs, then the cost to the distribution customers go down?

MR. TETREAULT: Yes. If the -- I will answer it perhaps more generically. But if the -- if the -- if the use of storage changes and the use of Dawn to Parkway changes for ratepayers amongst the various rate classes, that will, at the time Union does a cost of service proceeding, impact the allocation of those costs and the rate recovery of them.

MR. CHERNICK: And so is that captured in the SENDOUT calculations or in the -- and by "SENDOUT" I mean all caps here, your program -- and in the avoided costs? Or do you assume, for the avoided costs, that your pipeline capacity -- internal pipeline capacity and -- and storage are -- are fixed?

[Witness panel confers]

MS. LYNCH: One of the recommendations that ICF had made in their report, which we've outlined at Exhibit B.T9.Union.GEC.21, is a methodology for avoided storage requirement costs and how that's been accounted for in our avoided costs.

MR. CHERNICK: Okay. So they recommend that you look at it again. So do you include it in one way, and ICF is saying that you should look at it a different way? Or did you ignore it and ICF says you ought to look at it?

MR. SLOAN: At the time that -- at the time that ICF did the analysis, the costs for storage were not explicitly included in the avoided cost estimate.

My understanding is that they have now been included in the current avoided cost estimate.

MR. CHERNICK: And the current avoided cost estimate as presented in this filing? It's an update that includes the storage costs?

MS. LYNCH: Yes, that is correct.

MR. CHERNICK: Would it be possible to get a breakout of the avoided costs, you know, between commodity purchased at Dawn and the -- the Dawn storage and TransCanada Pipeline charges and so on so that we have an idea of where these -- where the avoided costs are being added up from?

[Witness panel confers]

MS. LYNCH: We have provided a breakdown in our response in Exhibit B.T9.Union.GEC.21 part (h), where we're showing the breakdowns of the different profiles and the elements that are being included in the total avoided costs.

MR. CHERNICK: That says zero avoided storage. Wait a minute. That's base load.

MS. LYNCH: That's base load, yes.

MR. CHERNICK: The avoided storage requirements there are -- are from the Dawn facility, from your internal facilities?

MS. LYNCH: Yes, that's correct.

MR. CHERNICK: Okay. And in the first column of that table, there are three -- three components which are actually more than that, but there's variable commodity, and you buy commodity at Empress and at the margin at Empress and Dawn, as I understand it. Storage -- and it's not clear to me whether that's storage at -- at Dawn or someplace else and various transmission pipeline costs, TransCanada, and perhaps also costs on Dawn to Parkway.

Could that be broken out by which pipeline, which storage, and where the commodity is being purchased?

[Witness panel confers]

MR. CHERNICK: I would assume that your SENDOUT model gives you a great deal of granularity on what's happening in each case.

[Witness panel confers]

MR. SLOAN: In my report -- which is Exhibit A, tab 2, appendix C, on page 18 -- there's a description of the upstream cost components, broken out by the two different service territories, the southern and northern service territories, that describe in qualitative terms what is changing in the avoided cost estimates, and where the pipeline capacity is being avoided.

MR. CHERNICK: My question was can we get numbers that basically -- for each of those that add up to the numbers in the table we were looking at before in VECC and GEC 21.

[Witness panel confers]

MS. LYNCH: We would need to take that as an undertaking, and go back to our gas supply group to see, on best efforts, what we could provide.

MR. CHERNICK: Thank you very much.

MR. MILLAR: That is JT2.7.

UNDERTAKING NO. JT2.7: UNION TO DISAGGREGATE THE FIRST COLUMN OF COMMODITY ON PAGE 5, 6, and 7 on a best-efforts basis.

MR. SMITH: Alex Smith here. Can we clarify exactly what column is caught by that undertaking, what all is caught by it?

MR. POCH: If you go back to response 21, you will be able to give the proper page reference and so on.

MR. CHERNICK: Yes, on pages 5, 6 and 7, the first column for dollars per cubic metre aggregates a group of costs. And the question is what's going on in those.

MR. POCH: Can we just aggregate that first column?

MR. SMITH: The first column, thanks very much for that clarification.

MR. POCH: Not the first column of dates obviously, but the first column of data.

MR. SMITH: I was alive to that, yes.

MR. CHERNICK: Okay. Ready to move on to another exciting question?

MR. POCH: I think we are up to question 62 now.

MR. CHERNICK: Well, no. Another question on --

MR. POCH: Oh, go ahead, Paul. I’m sorry, I misunderstood.

MR. CHERNICK: The storage tariffs that I have seen have included charges for a charge for the amount of -- a reservation charge for storage capacity, for injection capacity, for withdrawal capacity, and then charges for commodity actually injected and withdrawn and, in some cases at least, per day of storage.

And the only number I've seen for storage at Dawn is a single dollar per gigajoule value. And it seemed to me that you would have a different dollar per gigajoule value if you were using Dawn to balance load, and you're putting gas in and taking it out, and putting it in and taking it out, as one does.

And that would be very different from, say, having additional gas in storage to meet design conditions which might occur only once in twenty years, and would have a lot of capacity costs.

So I am just wondering how the storage requirement costs were calculated. I think the response in 21 someplace refers to ICF, the ICF report. And the ICF report, I think, refers to having gotten the number from Union, so --

MR. POCH: So Mr. Sloan is off the hook, and it is back to you, Tracy.

[Witness panel confers]

MR. CHERNICK: This is discussed on page 4, item number 3 in GEC 21; there is a storage cost of 19 cents per gigajoule.

MS. LYNCH: We will take an undertaking to confirm that amount, and what is included in that amount.

MR. MILLAR: JT2.8.

UNDERTAKING NO. JT2.8: on a best-efforts basis, UNION TO CONFIRM THE STORAGE COST OF 19 cents per gigajoule; to indicate how those different components of storage charges were utilized in the calculation

MR. POCH: And just to make it clear, Mr. Chernick listed a number of different kinds of charges that can be associated with storage. And in answering that on a best efforts basis, can you indicate how those different components of storage charges were utilized in coming up with your value?

[Witness panel confers]

MS. LYNCH: Yes, on a best efforts basis.

MR. POCH: Yes, thank you.

MR. CHERNICK: Okay, while we're on page 4 of GEC 21, up in item number 2 there is, at the end of that paragraph -- it’s not technically a paragraph, but section number 2, the next to last sentence talks about an escalator is calculated for year X by taking the difference between a commodity price in year X and year 4, and adjusting for inflation.

I'm not quite sure what that adjusting for inflation means. It would be much easier to understand if we can just see the table or spreadsheet that does that calculation.

Is that is something that you could do, take on as an undertaking?

[Witness panel confers]

MS. LYNCH: We can provide that by way of undertaking.

MR. MILLAR: JT2.9.

UNDERTAKING NO. JT2.9: UNION TO PROVIDE THE SPREADSHEET THAT EXPLAINS THE CALCULATION on page 4 of GEC.21

MR. POCH: Paul, were there more on that particular interrogatory?

MR. CHERNICK: No, that's it.

MR. POCH: Okay. Then I think we're down to 62.

MR. CHERNICK: Yes, and this is a simple one.

We asked the question in part (e) about how industrial load differs from the residential commercial base load, and I expected an answer in terms of "for the residential commercial, each month has the same load each day, but some months are higher for the following reasons, whereas industrial load is exactly the same amount per day", or some kind of answer like that.

And we got an answer which just said that the residential commercial load is a non-weather sensitive load is just the load associated with residential and commercial non-weather-sensitive gas usage.

Can we actually get the load shape that was used, in terms of by month, or by day, or however you did it?

Part of my confusion is I have certainly seen and worked with base load avoided costs as opposed to weather sensitive in the past.

But I have never seen two kinds of base load. I'm just wondering what this other kind of base load is.

[Witness panel confers]

MR. SLOAN: The load factor or the monthly variation for the different load segments is shown in Exhibit 13 in the ICF report, which is Exhibit --

MR. POCH: Is your mic on? Sorry.

MR. SLOAN: I believe it's on.

MR. POCH: Okay. Thank you.

MR. SLOAN: I'll try and speak up, however.

MR. POCH: Thank you. Sorry to interrupt.

MR. SLOAN: So I believe Exhibit A, tab 2, appendix C, Exhibit 13 on page 23 provides a graphical representation of what you're looking for.

MR. CHERNICK: Page 23 in the document's internal numbering, not the --

MR. SLOAN: That's correct.

MR. CHERNICK: Okay. So -- and this is the -- the only difference -- okay. I guess...

So is water heating the non-weather-sensitive load that you're talking about?

MS. LYNCH: Yes.

MR. CHERNICK: And it looks to me like that that's following -- I'm looking at the south, and that seems to be following the space and water heating very closely. And it goes to zero in the summertime.

MR. SLOAN: I'm sorry. Can you restate that?

MR. CHERNICK: Yes. Okay. So maybe I'm not able to read all these dots on top of one another.

MR. POCH: Yes, I think that's the problem.

MR. CHERNICK: Where are the water heating data points? Are they in that flat line indistinguishable from industrial, or are they working behind the weather-sensitive line that goes up in the winter and down in the summer?

MR. SLOAN: Well, I wouldn't call them completely indistinguishable.

MR. CHERNICK: Well, perhaps your eyes are younger and more...

MR. SLOAN: The base load -- well, the water heating and the industrial process for both regions are shown on the graph in the flat line and generally are very close to on top of each other.

MR. POCH: That's the line that's pretty steady at 8 percent?

MR. SLOAN: That's correct.

MR. CHERNICK: Okay. That's helpful. And are there differences in the treatment of the loads within the month? That is, is the weather sensitive, is that higher on cold days within January, or do you - is the modelling done just in terms of a flat load across each month for whatever overall load shape you've got?

MR. SLOAN: The SENDOUT modelling is a monthly modelling process. The variability within the month would be accounted for in the inputs to the SENDOUT modelling.

MR. CHERNICK: So there'd be like a daily load shape?

MR. SLOAN: I don't know if there's a daily load shape, if I would characterize it that way or not.

MR. CHERNICK: Would it be possible for the company to take on an undertaking to just explain how intra-month variation of load is accounted for in the -- in the SENDOUT model?

I mean, we've asked other questions about getting the SENDOUT inputs, which, you know, we might be able to talk about this more intelligently if we had seen those, but we haven't.

MS. LYNCH: For clarity, are you looking for a percent of savings that are assumed in each month?

MR. CHERNICK: No. Within the month. For example, in January, do you -- does the SENDOUT model assume high SENDOUT requirements in some days and lower SENDOUT in other days, or is January flat from the 1st to the 31st, the same amount each day?

MS. LYNCH: On a best efforts basis, we can look to that in an undertaking.

MR. MILLAR: JT2.10.

UNDERTAKING NO. JT2.10: TO EXPLAIN HOW INTRA-MONTH VARIATION IS ACCOUNTED FOR IN THE SENDOUT MODEL

MR. CHERNICK: And in connection with that, the second part of my question is: And do the commodity prices similarly vary by day in the month?

MR. POCH: Can we include that?

MS. LYNCH: We'll include that.

MR. SLOAN: Let me speak to that. Since Union uses ICF's long-term forecasts, I can speak to what's in the long-term forecasts. And those are provided on a monthly basis, which include the daily -- expected daily volatility in prices averaged at the monthly level.

So the model is calibrated to provide monthly prices that reflect the expected daily volatility within the month.

MR. CHERNICK: And so does that include the fact that, on the cold days in the northeast, Union's load will tend to be higher than mild days in January, and the prices will also tend to be higher? Or you just give them an average price for the month? Just average it.

MR. SLOAN: I'm not quite sure how to answer that.

The forecasting methodology reflects the -- or the model is calibrated to reflect the volatility in daily prices. So the average monthly prices in our forecast include the impact of the colder days throughout the forecast area.

MR. CHERNICK: Okay. But the January price that you give to Union is just the average of 31 days with various high and low prices. It's not weighted by the load on those days?

MR. SLOAN: It is weighted by the load on those days. The price is calculated for the total flows during the course of the month.

MR. CHERNICK: I'm just making sure that I understand that. So in other words, you take the -- you have a cold day on January 3rd and a high price and a lot of gas being used by Union, and you multiply the -- that amount of gas, large amount of gas times a high price, and then on the 15th you have milder weather in the northeast and prices are down. You have a lower price, and Union's customers are using less. And you have -- multiply those two numbers together. You then add up all of the numbers for the month and divide by the total Union throughput. Is that --

MR. SLOAN: Well, the forecast does not do it on a daily basis, so, no, we don't do that.

MR. CHERNICK: Okay. I'm sorry. I thought that's what you said you did. All right. So you just take the volatility within the month into account and then average across the days. You don't take into account the fact that high prices and high loads tend to go together?

MR. SLOAN: Well, we look at -- at the full load during the course of the month and calibrate that to the average prices over the course of the month.

MR. CHERNICK: Okay. I think we've gotten as far as we're going to get on that. All right.

David, what is our next --

MR. POCH: Sixty-five is the -- we have two more interrogatories about which we have questions. First is interrogatory 65, and the second one is 66.

MR. CHERNICK: And there is a lot of overlap.

MR. POCH: Yes. We did provide a letter. We exchanged a letter with Union last week from Mr. Millyard, which had a breakout of some of these questions. We might use that as a guide on 65 to begin with.

I trust they were able to provide that to you, sir, Mr. Sloan.

MR. SLOAN: Is that a question?

MR. POCH: No. Paul, can you take the lead on this again? I think it might be simpler.

MR. CHERNICK: Yes. The thing that -- we're looking for two things here.

First of all, we're trying to figure out just what Union asked ICF to do, what ICF told Union it was doing, whether ICF proposed to look at some issues and Union said, oh, don't bother.

So that's why we're asking for the drafts, draft reports, memoranda, and presentations on where the project was going.

And if nothing exists, then we're not looking for it. But if there were communications that can easily be provided, we would like to see those, and the same thing in terms of what Union gave ICF and told ICF to do.

In a separate question on 66 -- or at least we thought it was separate at the time, we were looking for the SENDOUT model analyses which, at the very least, would have the inputs and then the results.

And I have been asking questions trying to get a sense of what SENDOUT is doing. But again, it would be easier if we just had spreadsheets showing these are the assumed loads, the assumed prices, and the amount that is purchased in this month, at this point, and the cost of shipping it and so on. Then we can just see how the model was dealing with that.

The three things were asking for are the communications from ICF to Union, Union to ICF and the SENDOUT results.

MR. POCH: You did provide some of the SENDOUT printouts of some of the pages. But I think we're running into the problem of getting -- you know, it's all of the backup, the background to that that would inform us how you have actually worked with these numbers.

So basically, I think the first question is: Can we get the actual live sheet? Is that right, Paul?

MR. CHERNICK: Yes. And depending upon the nature of SENDOUT -- you know, if it's a model that, you know, runs in some other language and just spits out tables, then they would be -- they wouldn’t be live in the sense that they would necessarily have formulas in them, but that they would show us the details that SENDOUT is producing and also the inputs, so that we can understand what went into SENDOUT as well as well as what came out.

MR. SMITH: Alex Smith here. Just on the discrete issue of input, my understanding is that we've provided all of the inputs. That's in the answer that we've provided.

And in terms of the whole universe of data, my understanding -- and the witness will clarify -- is that it's massive, and we just don't know if it is proportional and helpful. If there's anything that you can clarify further about what you want, we can try and -- on a best efforts basis -- to find something that is proportional and helpful.

MR. CHERNICK: First of all, you say you provided the inputs. But the one page that supposedly had price data in it was all error messages. And I don't believe that we have -- you know, this is the amount of Empress purchases, Dawn purchases, storage input by month, storage withdrawals by month, TCPL pipeline usage, Union pipeline usage, the charges for each of those.

So we're kind of -- we don't really have very much of the inputs or the outputs.

MR. SMITH: Union's understanding is that we've provided everything that we provided to Mr. Sloan on inputs.

MR. CHERNICK: Question number 66 doesn't ask about what you provided to Mr. Sloan. But if you provided everything -- not just SENDOUT, but all of the instructions and so on you provided to Mr. Sloan -- then I think that takes care of 65(a). But that doesn't deal with 66.

MS. LYNCH: So to 65(a), the proposal that ICF has provided summarizes the ask that we had for this report. There is no additional information.

MR. POCH: And can we just get -- while we're on this back and forth, can we get the answer to (b) then, which is do we have everything that ICF provided to Union in the development of this report?

[Witness panel confers]

MR. SLOAN: There was a normal amount of back and forth between ICF and Union, in terms of discussions and draft reports.

But the final report, as the product of the study, is the only thing that I would call a finished product, or relevant for this proceeding.

MR. POCH: All right. Let's return to the other question, which is really 66, which was: Can we get a fuller response on the inputs and outputs for the SENDOUT model?

[Witness panel confers]

MS. LYNCH: I can undertake to confirm what was provided and see if there is, on a best efforts, any additional information.

This is a huge model, so we're trying to provide the relevant information to this proceeding.

MR. POCH: All right. And perhaps I could just encourage you to feel free to contact Mr. Chernick and discuss, if that is of help in narrowing the focus.

MS. LYNCH: Thank you.

MR. MILLAR: JT2.11.

UNDERTAKING NO. JT2.11: UNION TO provide SENDOUT model outputs on a best efforts basis

MR. POCH: I think that is all on avoided costs, and we can turn to other topic areas. Unless either of my experts on the phone have any further questions for Mr. Sloan, I think we could flip back to the other panel, unless there is other parties that have questions.

MR. SMITH: Before we do that, and in fairness to GEC, it occurs to me that Mr. Sloan wished to make a clarification to his report, and we should probably do that now, just to see if your team has any questions arising from that.

MR. POCH: Sure. That would be great.

MR. SMITH: Over to you, Mr. Sloan.

MR. SLOAN: Thank you. During my preparation for this conference, when I was reviewing my materials, I found one error in my report that should be corrected and also one clarification, a minor clarification in an interrogatory response, neither of which has any material impact, but I don't want to leave the report as potentially confusing.

The error in the -- in the report is in the last paragraph on -- on page 28 and in Exhibits 14 and 15 in the report where a preliminary set of numbers made it into the final report, and those should be updated, and I would suggest that I provide that at a later date, unless you choose to review the specific changes at this time.

MR. POCH: Can you just -- just on that page, is it just those two values in the bottom paragraph there, or are we talking something --

MR. SLOAN: I believe there are three values, but yes.

MR. POCH: Did you want to just put them on the record?

MR. SLOAN: That would be fine.

MR. POCH: Why don't you do that? I think that would help people.

MR. SLOAN: The value of $3.18 should be changed to $2.48. The value of $4.03 should be changed to $3.07, and I believe there are two occurrences of that value. And the value of $4.05 should be changed to $3.09.

MR. POCH: Okay. And could you just briefly tell us -- you said the values that you -- these values, prior to correction, were, I guess, your initial iteration; and then you subsequently obviously changed the -- some of the inputs and that you've got a new -- a new output.

Can you just tell us in lay terms, if you can, what changed?

MR. SLOAN: I got overenthusiastic, and I made the same change twice. So I escalated the numbers after I had escalated the numbers.

MR. POCH: Oh, okay. Thank you.

MR. SLOAN: And then in Exhibit B, 29.Union.GEC.63, in table 1, the label "Maple" should be changed to "Dawn"; and the second sentence of the response, which reads, "As suggested by ICF, Union used Maple values for Dawn pricing," should be stricken.

MR. POCH: Okay. Just then going back, perhaps this is for you, Ms. Lynch. I don't know.

The change in the values that you gave there we just heard about, does that change the overall avoided costs, or does it change any of the -- anything else in your -- in your evidence of any significance that we need to be aware of?

MS. LYNCH: No, it doesn't.

MR. POCH: Okay. And that's because you'd already had the corrected numbers when you ran your TRC analysis, your rate impacts, what have you?

MS. LYNCH: That's correct.

MR. POCH: Okay. Thank you. Unless there is any questions arising from that, I think we're done with you, sir. Thank you.

MR. MILLAR: So, Mr. Smith, where does that leave us? We will be recalling the original panel now?

MR. SMITH: Yes. We're going to, again, call the original panel.

MR. MILLAR: Mr. Poch, how much time do you have for the remainder of your questions, approximately?

MR. POCH: A lot of small questions which will probably be fast to answer. It's hard for us -- for me to estimate, but I'm thinking at least an hour.

MR. MILLAR: Okay. I'm in the parties' hands. We could stop for lunch now, or we can -- or we can carry on for another 20 minutes.

MS. GIRVAN: Mr. Millar, I could probably go ahead and be done in 20 minutes.

MR. MILLAR: Maybe that would be good, Mr. Poch. Give you a chance to collect your thoughts for the rest?

MR. POCH: Yes. It's really just -- I know Mr. Neme has to leave kind of mid-late afternoon.

MR. MILLAR: Oh, I se.

MR. POCH: But I don't think that'll be a problem if we're starting again at, you know, 1:15 or something like that.

MR. MILLAR: Well, we won't...

MR. POCH: Or 1:30. It'll be later.

MR. MILLAR: Maybe you should continue, Mr. Poch if -- I had forgotten there was a time restriction on Mr. Neme. I wouldn't want --

MS. GIRVAN: My time restriction is three, so I assume I'll be out of here by then.

MR. POCH: Mr. Neme, are you still on the phone?

MR. NEME: David, I'll just note that I'm not quite as constrained as I thought. I can go at least until four, so if Julie goes first, we're fine.

MR. POCH: Well, then we're fine. Let's let Julie go first.

MR. MILLAR: Why don't we do Julie, and then we'll -- we'll break for lunch? If that's okay with you, Mr. Smith? Normally we don't split a person's examination, but...

MR. SMITH: That's fine.

# UNION GAS LIMITED - PANEL 1, resumed

**Greg Tetreault**

**Ehsan Dibaji**

**Tracy Lynch**

**Tracey Brooks**

**Bryan Goulden**

# Questions by Ms. Girvan:

MS. GIRVAN: Do you want me to start? Are you settled in? Good to go?

MS. LYNCH: We're ready to proceed.

MS. GIRVAN: All right. If you could turn to CME 11, please.

MR. SMITH: Do you have the topic for that, please?

MS. GIRVAN: Yes. Sorry, topic 2. And there's an attachment 1, and if you could turn to page 7 of that, please.

So I just have a few questions regarding the -- at the top of the page, there's a home reno rebate program. On the left-hand side, it says:

"New considerations. With TRC Adder Home, HRR becomes TRC positive."

Can you explain what that means for me?

MR. DIBAJI: Yes. This is referring to the 15 percent adder, the non-energy benefit adder.

MS. GIRVAN: Okay. I'm not quite familiar with that. Can you explain it?

MR. DIBAJI: Yes. In the framework, the Ontario Energy Board dictated that we would include a 15 percent non-energy benefit adder to the total results process.

MS. GIRVAN: Oh, yes, okay. SO is it -- is it the case that, without that adder, that this program is not TRC positive?

[Witness panel confers]

MR. DIBAJI: I think that's something we'd have to confirm.

MS. GIRVAN: Okay. That would be helpful.

MR. MILLAR: JT2.12.

UNDERTAKING NO. JT2.12: To confirm whether, wITHOUT the 15 percent non-energy BENEFIT adder, thE home reno rebate program is not TRC positive

MS. GIRVAN: Okay. And then if you can turn to the -- on the right-hand side, it says -- and I'm not sure -- this is -- this was, I think, a preliminary presentation before you actually confirmed the program. So I just want to confirm here. Do you still -- is it still the case that customers will receive $200 towards an initial audit, regardless of the retrofits? Is that still part of the program design?

MS. BROOKS: That's not currently part of the program design.

MS. GIRVAN: It's not? Okay. Thanks.

And then down below the third point, just to confirm again, have you eliminated the per participant threshold? So is it now an aggregate versus the per participant? I'm just trying to confirm the sort of ultimate program design on this one.

[Witness panel confers]

MS. BROOKS: So the aggregate savings per home has always been on aggregate, the 25 percent.

MS. GIRVAN: Okay. But per participant -- this just says, the elimination of the per participant threshold. Has that been eliminated?

[Witness panel confers]

MS. BROOKS: In our current program, we have a m3 requirement per participant that we are proposing to eliminate moving forward in 2016.

MS. GIRVAN: Okay. And what is that?

MS. BROOKS: It's 11,000 lifetime m3 per participant.

MS. GIRVAN: So what will be the -- there won't be a threshold any more, as long as the aggregate is 25 percent across the board? Is that what you're saying? I'm not clear on this.

MS. BROOKS: Our proposal moving forward is that our aggregate would be reduced to 15 percent, and we would no longer have a per-participant m3 threshold.

MS. GIRVAN: Why is that the case?

MS. BROOKS: For the m cubed threshold?

MS. GIRVAN: For both, actually.

MS. BROOKS: For the m3 threshold, the decision-making there is around allowing smaller houses to participate in the program. So although they might be smaller in size from a percentage standpoint, they may still have significant savings available for them.

For the aggregate threshold, that has to do with the change to the residential base case, where we're proposing a 90 percent base case, which would reduce the overall m3 that we're modelling in the home.

MS. GIRVAN: Okay, all right. Thank you.

If you can turn just to the next page, I'm just curious why the participation, in terms of homes, will be flat over the period 2018 to 2020. You're sort of ramping up in terms of participants, and then it’s steady state sort of 2018 to 2020.

[Witness panel confers]

MS. BROOKS: So our proposal is that our targets are based on formulaics. So as we are successful or unsuccessful in those, assuming those numbers, our targets will be adjusted accordingly.

MS. GIRVAN: Your targets will be adjusted each year?

MS. BROOKS: Post 2016, yes.

MS. GIRVAN: Okay. If you could move down to page 17, please?

Just with respect to the optimum home program, I know you are ramping -- you're actually eliminating the program. Why are you continuing with it in 2016?

[Witness panel confers]

MS. BROOKS: It's through our discussions with our builders. Our understanding is that the builders continue to require our support through 2016, to continue the momentum to the next building code.

MS. GIRVAN: Okay. All right, thank you.

If you could turn to tab 3, CCC number 1, please? So this table 1 sets out your net annual natural gas savings from 2010 and the net TRC.

Can you just remind me, with respect to the net annual natural gas savings, what's happened between 2015 and 2016? That would be helpful. What's happening between 2015 and 2016 that the savings go down so significantly?

MR. DIBAJI: Yes. This is attributed to elimination of the T2 rate 100 program, as it currently stands.

MS. GIRVAN: Okay, that's what I thought.

Now, can you again remind me what happened, with respect to the TRC, between 2013 and 2014? I think the 2013 is resulting from the industrial programs, but --

MR. DIBAJI: Yes, I think it is tied directly to the results of the large volume program.

MS. GIRVAN: Okay. All right, thank you.

If you could turn to CCC number 3, which is tab 3, CCC number 3, please? This looks at the impact on -- average bill impact on residential consumers, and I just want you to confirm.

So if, for example, you exceeded your target -- so you met your 125 percent or if it's 150 percent, this number would be different, because you've assumed in this the maximum incentive is -- or the incentive amount is at the hundred percent? Is that correct?

MR. TETREAULT: Yes, that's correct.

MS. GIRVAN: So what would be the monthly impact if you were to, like, reach the 125 percent? Does it increase, and how much would it increase?

[Witness panel confers]

MS. GIRVAN: Do you want to get back to me on that?

MR. DIBAJI: Are you asking specifically if we achieved the upper band?

MS. GIRVAN: Yes.

MR. DIBAJI: So I think we responded to an IR similar to that, and that is T3 LPMA 22, attachment 2.

In that attachment, we show what the impact would be at a rate class level if we achieved the upper band.

MS. GIRVAN: Okay, I can take a look at that myself. Does it have it per month or -- in the same format as the one we were just looking at? It doesn't?

MR. DIBAJI: In attachment 1, I think we provided it per month.

MS. GIRVAN: Okay. In percentage, not per dollar.

MR. TETREAULT: Julie, let us take a look at lunch, and we will see what we can come back with in the afternoon.

MS. GIRVAN: Okay. I just wanted to compare the 199, what it would be if you reached the maximum incentive. Thank you.

If you could turn to CCC number 13, tab 3, this is with respect to the Green Button initiative. And it says that for 2015, the estimated cost is $100,000 and then beyond that it is unknown at this time.

And I guess I have two questions, really: What's the $100,000 for? And then beyond 2015, do you expect this to ramp up, and have you included amounts in budgets beyond 2015 for the Green Button initiative?

[Witness panel confers]

MS. BROOKS: Sorry, just to confirm the first question is what the $100,000 is expected to be used for?

MS. GIRVAN: Yes.

MS. BROOKS: So the $100,000 is expected to support phase 1 of the project, which is really around formatting data in a consistent way for customers across utilities.

MS. GIRVAN: How did you come up with the $100,000 estimate?

MS. BROOKS: It's based on discussions that we've had with our vendor, who would do that work for us.

MS. GIRVAN: Okay. And then beyond 2015, is this expected to ramp up?

MS. BROOKS: At this point, the costs beyond phase 1 are unknown. So phase 2 of the project is supposed to be more around the applications that customers would use to actually download the data, and it's not clear to the utilities at this time who would actually be incurring those costs.

MS. GIRVAN: Okay. So you haven't included any costs beyond 2015 with respect to the Green Button initiative?

MS. BROOKS: Correct.

MS. GIRVAN: Okay. So if, for example, you expected some costs to be incurred, how would you go about doing that?

MS. BROOKS: We would absorb those costs as possible within our existing budget. And then we would have to make other considerations, if the costs were too large.

MS. GIRVAN: All right, thank you. So could you please turn to tab 3, CCC number 27, please?

And this is about productivity and any adjustments within your DSM budget. And I just am curious as to why you haven't included any productivity adjustments in your DSM budgets, because you would think over time -- and this would be my expectation -- that you might become more efficient at delivering your programs.

[Witness panel confers]

MS. LYNCH: We've proposed a formulaic approach to our targets. So to the extent that we are more cost-effective, our targets would be adjusted appropriately.

MS. GIRVAN: Okay. But would your costs be reduced over time?

MS. LYNCH: To the extent that they are as we're delivering the program, then that would be reflected as well.

MS. GIRVAN: Okay. And would cost reductions be rebated back through the DSM VA?

MS. LYNCH: The budget that we have would be adjusted based on our results, and our targets would reflect that. So my expectation is that we would need the budget to attain the revised targets that would come out of the formula.

MS. GIRVAN: Okay. So I guess just inside -- inside your department, you're not sort of looking at productivity in terms of saying, "How can we best deliver these programs? How can we reduce our costs in terms of delivering these programs? How can we become more efficient?" Do you not sort of take a look at that?

MS. LYNCH: We certainly do look to be the most cost-effective that we can be in how we deliver our programs.

MS. GIRVAN: Do you expect that to improve over time?

MS. LYNCH: It would vary by program. It would depend on the reach that we're looking for, the geography, the -- the type of costs that we find we incur.

MS. GIRVAN: So you don't sort of gauge, you know, costs per cubic metres saved in terms of looking at efficiencies? You don't do that?

[Witness panel confers]

MS. LYNCH: The cubic metre target that we have does account for that in the formulaic approach that we use.

MS. GIRVAN: Okay. Okay. All right. Thank you.

So if you could please turn to tab 3, SEC 31, please. So when I look at this, it's the sort of -- oh, that's the chart. There we go, that chart.

So this looks at residential program budgets and forecasts, and you see the sort of costs per cubic metre at the bottom, and I'm just wondering, with this behavioural program, why you're pursuing it. If you could explain that to me, because it seems costly to me. And I would like to get a better sense of why this is something you're pursuing.

MS. BROOKS: So as mentioned in our Exhibit A, there were many factors we considered when looking at programs.

We looked at different things such as the key priorities and guiding principles of the Board, and we felt that the residential behavioural program addressed many of those.

We also feel that, beyond just the deliverables of this program in itself, that it has broad access for residential customers and also promotes education and the cross-promotion of other offerings for this customer base.

MS. GIRVAN: So I guess, going forward, are you going to have a look at this, maybe, you know, in the next year or so to see if you're actually getting value for your customers out of this program and maybe revisit it? Is that something you'd be doing?

[Witness panel confers]

MS. BROOKS: On a continuous basis, we always evaluate our programs, and if we feel that there's no value for customers, then we would no longer promote those programs.

MS. GIRVAN: Okay. All right. Thank you. Could you turn, please, to tab 5, Board Staff No. 22?

So it's my understanding with the home reno rebate program that the incentives could actually amount to $5,000 per customer. Is that correct?

MS. BROOKS: That's a new maximum cap we're proposing, yes.

MS. GIRVAN: Okay. And I've asked this before, but I guess specifically in this point, I just wondered if you'd surveyed your customers regarding this specific program, if you had had discussions with your customers on this.

And what I'm really looking at is sort of the views of those unable to participate versus those that might be able to participate. Have you done any customer surveys?

[Witness panel confers]

MS. BROOKS: Generally, through our research, customers have shown that they have a preference for incentives, but we have not done anything specific to this program.

MS. GIRVAN: Okay. And did you consider starting with a lower incentive just to see what the take-up would be and then, if you're having trouble getting the take-up, then maybe providing customers with a larger incentive, ramping that up versus saying, "Okay. You know, we'll be willing to provide $5,000"?

MS. BROOKS: So the intention of increasing the cap from our current $2,500 to 5,000 wasn't necessarily to increase take-up, but it was to ensure that we were addressing lost opportunities within the home so that customers would consider more options in the home when we were in the home as opposed to increasing the overall take-up.

MS. GIRVAN: Okay. Have you done any sensitivity analysis about the incentives, whether, you know, greater incentives would bring in more savings or no, or have you done any of that analysis?

[Witness panel confers]

MS. BROOKS: Not specific to this program, but generally, yes.

MS. GIRVAN: Okay. Thank you. And then could you please turn to tab 5, BOMA No. 14, please?

So the question was whether Union was aware of any studies that determined how homes built to the Ontario Building Code 2012 actually perform relative to the energy modelling results, and the answer was no. And I just wondered why wouldn't you do this, look to see if the homes are actually performing consistent with the modelling results.

MR. GOULDEN: I can maybe help with this, Ms. Girvan.

MS. GIRVAN: Sure.

MR. GOULDEN: I'm aware that there has been some work done at sort of an industry level through some of the Ontario Building Code work underway.

And, effectively, in order to -- to model actual results, you have to identify what arc archetype home you want to model. So is it a big house? Is it a little house? Is it a townhouse? Does it face north? Does it face east? All of that stuff. It's very complex.

So the industry is aware of this, and through the Ontario Building Code organization, they're looking at this, but it's very complicated, and we haven't -- we haven't directly been doing any of that work.

MS. GIRVAN: Is it something you're going to do going forward?

MR. GOULDEN: Perhaps on an industry basis, but not at Union Gas, no. Again, because it's very -- it's very complex.

MS. GIRVAN: Okay. All right. Thanks.

Those are my questions. Thanks.

MR. MILLAR: Thank you, Ms. Girvan. It's quarter to one. Why don't we break until 25 to, give us 50 minutes? We still have quite a bit to get through today, but I'm confident we will get there.

Mr. Smith, anything before we break?

MR. SMITH: No.

MR. MILLAR: Okay. See you all in 50 minutes.

### --- Luncheon recess taken at 12:45 p.m.

### --- On resuming at 1:35 p.m.

MR. MILLAR: Good afternoon, everyone. We will continue now with Mr. Poch.

# Continued Questions by Mr. Poch:

MR. POCH: So first of all, I am going to apologize. We're going to jump back and forth between topics, because I am proceeding in the order we originally numbered them. My apologies.

Let's start with GEC 1, which is in the topic 13 "other".

Chris, I am just going to ask you to chime in whenever it seems appropriate.

This was just -- we had just asked for the electronic form of your calculations underlying your TRC analysis, and you sent us a PDF table. It would convenience us greatly if you could get that to us electronically; is that possible?

MR. DIBAJI: Are you looking specifically for the TRC numbers electronically?

MR. POCH: It's the -- we assume you had some spreadsheet that pulled together your historic and future numbers and so on, and produced your calculations.

[Witness panel confers]

MR. NEME: It was with respect to what you included in your attachment to the response, I think.

MR. POCH: Yes.

[Witness panel confers]

MS. LYNCH: Just for clarity, an Excel version of attachment 1?

MR. NEME: Yes.

MR. POCH: That would help.

MS. LYNCH: We can provide that. There is not a formulaic approach behind it.

MR. POCH: So it's simply the same as the table?

MS. LYNCH: Correct.

MR. POCH: All right.

MR. NEME: Okay. Then it is probably not a big deal, then.

MS. LYNCH: Okay, thanks.

MR. POCH: Let's not worry about it.

Part (e) of that question -- let me just explain what we're trying to do. We want to make sure we understand how much gas is burned in Ontario in each of the years.

So we want to exclude volumes that would be either burned by Enbridge -- because we’ll pick that up in Enbridge's numbers -- sent out of the province.

But we do want to include volumes that may be not metered for other purposes at Union; for example, volumes that you pass-through to gas generators, but that are burned in Ontario.

I'm not sure that that is what these numbers show, so I am wondering if it would be possible for you to get us numbers on that basis.

I can break that down for you, if you'd like, if it will make it a little clearer.

MR. MILLYARD: Maybe we should break that down. First of all, we had some bumps on this question at Enbridge, and I think we got that straightened out yesterday. But we want to make sure we have an apples-to-apples set of numbers here.

So are there any -- your power plant customers, are their volumes are included, metered and included here?

MR. TETREAULT: My understanding is that all in-franchise consumption is included in part (e) for those years.

MR. MILLYARD: Great, okay. So then Union also has wholesale volumes. Are there any wholesale volumes reflected in the numbers you have given us?

MR. TETREAULT: I don't believe so, no. It's strictly in-franchise consumption.

MR. MILLYARD: Okay. So some of your wholesale volumes may be headed either to Enbridge or out of the province, to customers out of the province?

MR. TETREAULT: Can I just clarify what we mean by Wholesale? Do we mean for what we would refer to as ex-franchise customers -- ex-franchise transmission shippers, for example?

MR. MILLYARD: Well, to shippers or to distributors within Ontario. The distributors within Ontario's volumes we would like to see, because that is part of the picture of how much gas is used in Ontario.

MR. POCH: But not Enbridge.

MR. MILLYARD: But not Enbridge, right. So Kitchener, or Kingston, or NRG; we would like to see those volumes included. Would it be possible to add those?

MR. POCH: And if for some reason you can't disaggregate, but you can give us that bottom line aggregated, that would suffice, too.

MR. TETREAULT: So you would like -- sorry, I'm just Clarifying. You would like the volumes specifically for Kitchener, NRG, and Kingston?

MR. MILLYARD: Or any other gas that is going to be used in Ontario.

MR. POCH: Exclusive of Enbridge.

MR. MILLYARD: Right.

MR. TETREAULT: We're just -- to be honest, I don't know if we can provide that. My expectation is that in- franchise volumes in this table would include Kitchener and would include NRG, because they're served under Union Gas distribution rate classes.

MR. MILLYARD: Oh, okay, fine. Very well, I'm not looking for double counting.

MR. POCH: Maybe it is just going to be for you to confirm that this table is what we -- as we've described it, on a best efforts basis.

MR. SMITH: And maybe you could just restate, just because we have had a bit of back and forth.

MR. POCH: Could Union confirm that the table referred to captures all volumes that are utilized in Ontario, exclusive of Enbridge, and does not capture volumes which would leave the province?

MR. TETREAULT: Mr. Poch, we can go to evidence, I think, and find or confirm what it is you're looking for?

MR. POCH: Great, all right.

MR. TETREAULT: It would be Exhibit A, tab 1, appendix A, schedule 1. For example, what you have here in the right-hand series of columns is actual 2014 volumes broken down in a number of different categories.

But I think the confirmation you're looking for is probably towards the left-hand side of this attachment. So on the left-hand side, you can see the rate classes, and you know, the various distribution rate classes that we have.

And included in there would be wholesale volumes, so rate M9 and M10. So, for example, NRG would be one of the customers in M9.

And then down under the contract rate classes, line 20, where you see rate T3 transportation, that would be -- that would be transportation for the City of Kitchener.

MR. POCH: Okay. I think you have just confirmed what -- thank you. Kingston? Mr. Brett is asking where Kingston lies in this.

MR. TETREAULT: Kingston, from Union's perspective, is an M12 transportation shipper. They are not served under any in-franchise or any distribution rate class. So they would be excluded from this information.

MR. POCH: So they would be perhaps the example that doesn't -- that falls between the cracks here, if you will?

MR. TETREAULT: That's fair. They are, from our standpoint, purely an ex-franchise customer.

MR. POCH: Do you happen to have their annual volumes?

MR. TETREAULT: I think we would, yes.

MR. POCH: Could you provide those to assist us?

MR. TETREAULT: Or --

MR. POCH: Basically add them into the table provided in Exhibit B.T13.Union.GEC.1 part (e).

MR. TETREAULT: We can do that. I don't know with Kingston whether we have their M12 transportation volumes back to '97, but we can see what we do have.

And just to be clear for the record, it is to add Kingston's M12 transport volumes to this table?

MR. POCH: I am in your hands. I think we explained the intent of what we're after. If you could just use a best efforts undertaking --

MR. TETREAULT: Sure, we will do that.

MR. MILLAR: JT2.13.

UNDERTAKING NO. JT2.13: UNION TO MAKE BEST EFFORTS TO confirm that the table referred to captures all volumes that are utilized in Ontario, exclusive of Enbridge, and does not capture volumes which would leave the province

MR. POCH: Thank you very much.

Similarly, in topic 13, GEC 9, can you just provide the definition of single family there? I think we asked for it, and it was just omitted in the answer.

MS. BROOKS: So single family is defined as residential accounts that are coded as a single detached residence, semi-detached residence, row or townhouse unit, or duplex residence.

MR. POCH: Topic 5 now, GEC 11.

The attachment, page 14, says:

"Approximately 25 percent intend to add insulation in the next two years."

Our question is: Is that a percentage of the entire customer base, or some other base?

[Witness panel confers]

MS. BROOKS: Can you clarify where you're seeing 25 percent?

MR. POCH: Oh, I'm sorry. I -- I just was pulling that. I think it's 28 and 29 and 28 and 27.

MR. DIBAJI: What's the denominator for all of those?

MR. POCH: Yes. It says -- in the pink section, it says the base is those planning to make home more energy efficient in the next two years. So I take it, then, that's -- then it's -- in the case of the basement, while the 27 percent is of those that have indicated they're going to do something in the next two years?

MR. NEME: It's just a -- it's a clarification on the previous page it -- where we -- what we think this is saying is, in the previous page, 13, it says that somewhere in the 25 to 30 percent of your customers plan to do something on energy efficiency in the next two years. And then this one, we think what it's saying is of that 20 to 25 percent who plan to do something in the next two years, something like a quarter of them are thinking about insulation. Is that -- are we interpreting that correctly?

MS. BROOKS: Yes, that's correct.

MR. POCH: Good. The next one that I have is question 14, GEC 14. I'm sorry. It's in topic 12, GEC 14. This is for your -- with respect to the transition plan for including DSM in future infrastructure planning efforts, and you've indicated you feel it's premature.

We asked you in part (b) -- well, first of all, we asked you to summarize that, and you referred us first to Staff 32, and we didn't see an answer there. Have we missed something?

MR. NEME: Basically our read of Staff 32 is that the answer to Staff 32 is that it's basically describing that you're going to be doing the study and will have the results of the study available for the midterm review, but it doesn't answer the question why you believe it is premature for a preliminary plan prior to the conclusion of that study.

MS. LYNCH: Our perspective is that we need to complete that study in order to determine the plan that we would put in place.

MR. POCH: Go ahead, please.

MR. NEME: So maybe I can follow up, because this relates to a question we had kind of further down on the same -- same GEC interrogatory.

So if that plan is not going to be completed until the midterm review, three years from now, roughly, how will you address leave to construct projects that might come up between now and then with respect to the Board's requirement that you do integrative resource planning and assess the role DSM can play in potentially deferring those needs?

MS. LYNCH: As we've said, our intention is to initiate the plan this year, and we'll determine how long that will take as the scope is -- is defined.

If you're speaking on integrated resource planning as we've outlined, to the extent that we're taking our demand forecast into account in how we're determining our -- taking DSM into account in the way we're determining our demand forecast, then we have incorporated it in that way.

But as we've said and noted, it's -- there's a need to study it further before we're going to be able to answer any additional questions.

MR. NEME: So I get the point that to the -- that your forecasting of your needs will already -- I think what you're saying, Tracy, is that the forecasting of your needs will already -- will account for your system-wide efficiency program impact. Is that -- do I understand that correctly?

MS. LYNCH: That's correct.

MR. NEME: So but even -- so but taking the next step, so if your forecast of needs accounts for that but it still suggests that there's a need coming up for some capital project, capital investment project, and that need comes up between -- or is identified between now and when your study is completed, what will you do? How will you take -- how will you consider whether additional geographically-targeted DSM could play a role in cost effectively deferring that need if your study is not yet complete?

MS. LYNCH: At that point, we would speak to -- to what we -- we have done. I think it's important, though, as you look at the approach, one of the key things you'll see is I'm sure you review the study we provided from Dunski Energy, one of the key elements that we need to think about is what is the timeline that needs to be in place before you could effectively take a focused or specific area approach in -- in assuming that DSM would be able to -- to impact that requirement.

MR. NEME: Absolutely. As you know, I've done a lot of work on this topic, and I completely agree that timeline is important. But I guess, you know, if, for example, you need a four-year lead time to potentially defer something and your study is not -- its completion date is not -- you know, is anticipated at the time that need is -- is identified to be two years further out, such that, if you waited until the completion of the study, you wouldn't actually have enough time to do anything about it. Are you suggesting that you just go ahead with the capital project in that case, and it would only address future ones once you've got your study done? Or would you do something in the interim for that particular case, absent, you know, perfect information from your new study?

MS. LYNCH: Our view is that we'll need to complete the study before we're able to -- to determine what the next steps will be.

Our intention, as I said, is to initiate it this year, and we'll complete it as soon as we can.

MR. NEME: Okay. And any projects that come up in the interim, you'll just not be able to do the IRP kind of work; you'll just have to wait for the projects that come up after the study is completed. I think that is what I heard you saying.

MS. LYNCH: We'll look at it as we have been, but on a specific, we'll need to take further consideration of that.

MR. NEME: Okay. And one last question related to this one, and this was the part (b) part of our question which we didn't see answered in the Staff 32, but you referred us to as well.

What information that you do not currently have would you need in order to develop a preliminary transition plan? Not your final plan, but what are the key pieces of information you don't have that you would need to have in order to develop a preliminary plan?

MS. LYNCH: There are a few elements that -- that we would need. I mean, certainly specifically we would -- we would need to understand the load curves for the technologies that -- that we support, specific to peak or instantaneous requirements as opposed to annual requirements as well as what are the -- what are the other requirements around projects? What is the time? Is it -- is it of a size that would warrant that -- that type of review?

Like, we -- we really need to develop the criteria by which we would be able to -- to assess our ability to -- to utilize DSM and infrastructure planning.

MR. NEME: Okay. One last thing related to -- to this question: Have you -- have you had any leave to construct projects come up since the GTA case was completed?

MS. LYNCH: Yes.

MR. NEME: And in those, did you consider the role that DSM could play in deferral?

[Witness panel confers]

MS. LYNCH: We haven't explicitly considered it. We've outlined what we have done.

MR. NEME: Sorry, what does that mean?

MS. LYNCH: So we have outlined what our current approach to DSM is, and how that is captured in our demand forecast. As I said, not specific.

MR. NEME: But you haven't considered what role -- whether additional geographically-targeted DSM could do in those cases?

MS. LYNCH: That's correct.

MR. NEME: Okay.

MR. POCH: Chris, correct me if I'm wrong, but I think we’ve dealt with 16 (a), the next one?

MR. NEME: Yes.

MR. POCH: We're to going to the topic of DSM targets, and it is GEC 24.

You were -- we asked you for documentation behind your targets, and you were kind enough to give us some spreadsheet calculations of savings build-up, by sector and measure.

What I think we're missing, if it's available, would be to get budget breakdowns in the same way; that is adding per-unit rebates, total rebates per-measure, and non-rebate costs per program, unless that has already been provided elsewhere.

[Witness panel confers]

MR. DIBAJI: We can provide that by way of an undertaking.

MR. MILLAR: JT2.14.

UNDERTAKING NO. JT2.14: UNION TO PROVIDE DOCUMENTATION SUPPORTING TARGETS IN AREAS OF per-unit rebates, total rebates per-measure, and non-rebate costs per program, unless that has already been provided elsewhere

MR. POCH: Thank you. Moving on to GEC 25, the same topic. In answer to part (b), you referred us to spreadsheets in response to GEC 24 (b); that was what we just mentioned.

And those spreadsheets only showed the forecast participants. They don't show anything about estimates of market size.

For example, they show that you forecast a hundred Energy Star fryers to be ready to be rebated in 2016, but you don't say anything about how many new fryers are being purchased in this service territory each year. And that's what we're asking; so it is the market context.

Is that available?

[Witness panel confers]

MS. BROOKS: Can I just refer you to topic 5, Staff 17(b)?

MR. POCH: That's where you provide what's referred to as incidence rate?

MS. BROOKS: Correct, the best estimate of the market share for the technologies that we have listed.

MR. POCH: Okay.

MR. NEME: So two questions, follow-ups on that.

One, can you define what incidence rate is in this table? Is it the percentage of customers that currently have this technology in their buildings, or is it the percentage of customers who, when in the market for something new, will purchase this technology?

Or is it something different than either of those?

MS. BROOKS: It's those in the market that we've assumed have this technology.

MR. NEME: So it is a stock assessment, in essence, existing stock?

MS. BROOKS: Correct.

MR. NEME: So I think that is useful information. But I don't think it is the same thing as the size of the market, how many of the -- because for many of the measures you're promoting, you're promoting them at time of sale. You know, when you're in the market to buy a fryer, buy an Energy Star fryer instead of a standard fryer.

So the question, at least for those replaced -- you know, time of replacement measures, there's a question of, well, if you're going to rebate a hundred of them, that is a hundred out of what? A hundred out of a thousand, a hundred out of two hundred, a hundred out of ten thousand?

The introduction to this thing, which we reference in the question, was where we quoted you as saying that part of your analysis when you developed your targets included "assessing remaining market size using internal and third party data".

And so that's -- we're assuming you have more from that than what you have from table 2 that is provided in Staff 17.

Is that an incorrect assumption, and this is all you had?

[Witness panel confers]

MS. BROOKS: We don't have any further information than what we’ve provided.

MR. NEME: Okay. Just one quick clarification on that, Tracy. The Marbek potential study you did a few years ago, presumably, in order to assess potential, they would have had to make some assumptions about market size as well. Presumably they had interaction with you around their assumptions.

Is that the case? And if so, is there a way to -- do you have information that is not in the study report itself, that documents their estimates of market size for these different technologies?

MR. POCH: Or could you obtain it from them, if not?

[Witness panel confers]

MS. BROOKS: In topic 2, GEC 6, we've provided all of the documentation that we have on our achievable potential study.

MR. POCH: Since that's not there, I guess what we're asking is it must -- we assume it must have laid behind what Marbek did for you. And we're wondering if, then, you could, since I assume they would be accommodating to you, provide the work that led to the report they gave you.

Would it be possible for to inquire if it's available from them as part of the work they did for you earlier and provide it if so?

MR. SMITH: So just to clarify, you're asking for the backup from materials from this prior proceeding. Is that right?

MR. POCH: Well, that appears to be the last time that, from what we gather, that Union had information about the market size or that -- or information that must've been derived from market size, if it -- presumably if it was done rationally.

If that's all that's available, that's all we can get, of course. It may or may not still be extant.

MS. LYNCH: We've provided everything that we've received.

MR. POCH: Okay. Could we ask, then, simply that you inquire of Marbek and ask if they did that for you and if they could provide that for you to provide to us?

MS. LYNCH: We can -- we can ask them.

MR. POCH: All right. Thank you. That's all we can ask.

MR. MILLAR: JT2.15.

UNDERTAKING NO. JT2.15: UNION TO USE BEST EFFORTS TO OBTAIN ANY MARKET SIZE DATA THAT MARBEK DEVELOPED OR RELIED ON IN PROVIDING THEIR EARLIER STUDY FOR UNION.

MR. POCH: That Union will use best efforts to obtain the market size data -- any market size data that Marbek developed or relied on in providing their earlier study for Union.

I think we're up to No. 30 now on this same topic. We were asking you how you -- about your sensitivity analysis, and you've referred us to Staff 15. Staff 15 does talk about programs that you considered and did not include in your plan, but it doesn't address alternative portfolio mixes.

MR. NEME: We assume, in other words, that -- I mean, I think it's a partial answer. When we asked you -- you have a proposed plan with a proposed mix of programs, and when we asked you what alternative of mixes of programs did you consider, you referred us to Staff 15, which talks about programs that you considered but didn't include in the plan.

But there's another component to the -- to the -- there's another way you could have constructed a different portfolio, which is to take the programs you currently have but put different weights on them you know, less residential, more commercial, less this residential program, more that residential program, et cetera.

Did you -- did you look at different mixes of programs in your portfolio than the one you ultimately ended up proposing, and if so, what were those different mixes, and how did you end up choosing the one you chose instead of the other ones?

[Witness panel confers]

MS. BROOKS: The process in which we put our plan, I would say there was nothing significantly different in our alternatives than what we finally proposed.

MR. NEME: Okay. So you didn't do an alternative scenario and then compare them and said, "Well, this one saves more here but produces less of a different kind of policy objective." You mostly looked at the portfolio you looked at and qualitatively considered some tweaks to it, but that was about it?

MS. BROOKS: That's correct.

MR. NEME: Is that a fair characterization?

MS. BROOKS: Yes.

MR. NEME: Okay.

MR. POCH: Okay. All right. Let's move on then to number 31, which had to do with your formulaic approach to adjusting targets, and there was some follow-up questions we had.

MR. SMITH: Sorry, what topic?

MR. POCH: This is -- I'm sorry. This is still the same topic, topic 2, GEC 31.

Am I right in assuming that the application of the prospective only approach on assumptions would not apply to custom projects? Or did I gather --

MR. DIBAJI: They would be any changes to input assumptions that apply to any programs in our portfolio.

So if a net-to-gross changed across the board and that affected the custom, that would also apply. But it does not include any CPSV that happens in that current year. So that process would stay the same any custom savings project verification.

MR. POCH: any CPSV?

MR. DIBJAJI: Yes, customs project savings verification.

MR. NEME: So maybe just -- maybe just the way you stated it, I just want to make sure that this was intentional, in which case I think we would understand it.

You said any changes to input assumptions. By that I assume what you mean is the prefiled set of input assumptions that are mostly for prescriptive measures but sometimes include things like measure lives and net-to-gross ratios that would --

MR. DIBAJI: That is correct, yes.

MR. NEME: And any other aspects of custom projects that are engineering calculations or other approaches, you take to those, those are not part of what you prefile and, therefore, would not be subject to this formulaic adjustment?

MR. DIBAJI: Exactly.

MR. NEME: Okay.

MR. POCH: And --

MR. NEME: Follow up question: Can we assume that you're talking about such adjustments applying only for the purposes of determining whether you've met your -- for calculating a scorecard score, and it wouldn't -- the best information would still be used for -- retrospectively, for LRAM?

MR. DIBAJI: Precisely.

MR. POCH: That makes sense. Okay. And, similarly, topic 2, GEC number 35.

Chris, I'm going to let you handle this one, if you would.

MR. NEME: Sure. So I think this is a question where we're asking you about your new -- well, in part, about your new Strategic Energy Management program. We're now talking about part (b), and we asked how many of your customers are eligible to participate and to explain how you got to that number. And your answer says that there's about 100 industrial-manufacturing distribution contract customers eligible to participate and that you used 100 million cubic metre consumption of natural gases to cut off to determining what their -- what that eligibility was.

And that raises two follow-up questions, the first one being: how did you choose the 1 million annual cubic metres? What was that based on?

MR. GOULDEN: It's Bryan Goulden here. We wanted to capture the biggest customers first, and we arbitrarily used our judgment to say a million cubic metres per year is a reasonable cut-off on that basis.

MR. NEME: Okay. But this is a six-year plan, so if -- are you -- you said you want to do the largest ones first, and that -- that makes sense.

But isn't it conceivable that four -- three, four, five years out that you will have either gotten most of those in or gotten most of those who were willing to participate in and be ready to -- and learn something from them and be ready to migrate to slightly smaller customers but still substantial?

MR. GOULDEN: Possibly, but this is a very expensive program, Mr. Neme, so what we wanted to do was we wanted to identify the biggest customers that we would get involved first. It is conceivable that down the road we will obviously discover how the program works and consequently we might change it at that point.

MR. NEME: Okay. And did you -- did you compare your 1 million cubic metre cut-off to the kind of thresholds that utilities in other jurisdictions that run similar programs use?

MR. GOULDEN: Qualitatively, we did. And what I mean by that is we didn't say, "Who else has got a million cubic metres?" But we sort of did a, you know, rule of thumb, does it feel about the right size?

It was more about the pool of customers, the hundred customers, than it was necessarily about the million cubic metre size. We wanted to deal with a reasonable size pool of customers, and that's where sort of the threshold volume kicked out.

MR. NEME: Okay. And you talked about, in this answer also, that the focus is on contract rate customers. Do you have any other non-contract rate customers that have that level of consumption?

MR. GOULDEN: For the SEM program?

MR. NEME: No, I'm asking just in general.

MR. GOULDEN: Very few. We may have --

MR. NEME: Any reason why they couldn't participate, if they were big enough?

MR. GOULDEN: It may be possible that there's an industrial customer that uses -- industrial manufacturing customer that uses a million cubic meters per year. I am not aware that there is one, but there could be one. Again, we wanted to start somewhere.

The challenge with that, of course, is what do you do with the costs of the program, et cetera. So it was an arbitrary determination based upon where the biggest customers are.

MR. NEME: Okay. And then in part (c) to this question, we asked you how your targets were developed. For example, how did you decide that 25 Runs Smart participants and two Strategic Energy Management participants were the right target for 2016?

And in setting those targets -- and the answer you gave us, well, you looked at a list of qualitative issues like cost-effectiveness and long-term commit -- the need for the SEM program to make long-term commitments and scalability, and so on.

I guess we're wondering whether you benchmarked the participation levels that you are proposing against what similar programs in other jurisdictions accomplished in their first year or two and, if so, how that does compare.

MR. GOULDEN: I would say, sort of qualitatively again, this was -- what did we think we could reasonably accomplish to get this program going? So that is how we sort of used our judgment.

We didn't -- again, we didn't find like programs with like criteria that we did sort of a more comprehensive comparison on.

MR. NEME: Okay.

MR. POCH: Finished with that one Chris?

MR. NEME: Yes.

MR. POCH: Let's move on to number 40 then, GEC 40, under topic 5 still.

This was asking you about a table that included programmable thermostats; just a couple of follow-up questions.

You’ve indicated in your answer it is standard programmable thermostats. Given the onset now of these WiFi-attached thermostats which promise greater savings, is there some reason you haven't gone to that technology?

[Witness panel confers]

MS. BROOKS: I would like to refer you to topic 5.Union.Staff.21, (d) and (e).

MR. POCH: Kind of my paraphrase is that Union's customers are a little behind the curve on picking up technology, comfort with technology.

So you're basically concluding that in the six-year plan, this is not going to offer much opportunity for significant penetration in your franchise area?

MS. BROOKS: Well, if you reference the answer in (e), we will be working with Hydro One on a pilot to determine more information about this technology before we have intentions to roll it out to our customers as a specific program.

MR. POCH: Okay. Chris do you have anything further on that?

MR. NEME: Yes, two things. One, with respect to (d), what I think I am reading in your response to Staff 21 (d) is that the rebate that you are offering for programmable thermostats could be used either for a standard programmable, or for the more adaptive or web-enabled models, is that right?

MS. BROOKS: That's correct.

MR. NEME: But do you expect much penetration of the WiFi or adaptive thermostats in that context, given their cost is substantially higher -- and their savings is too -- than the standard programmable units?

MS. BROOKS: I can't confirm what the uptake would be, given the existing rebate.

MR. NEME: Okay. Can we assume that your savings goals assume that all of the participants are the standard programmables?

[Witness panel confers]

MS. BROOKS: That's correct.

MR. POCH: What can we assume about what is being replaced? Do you have a way of controlling that they're only replacing non-programmable? Or have you de-rated your results in the screening to deal with that concern?

[Witness panel confers]

MR. DIBAJI: It's based on the latest assumptions being reviewed right now.

MR. POCH: I'm sorry, I'm not following you.

MR. DIBAJI: It is based on the assumptions that are being used in the TRM process to better understand the savings.

MR. POCH: So whatever free ridershp, or whatever was in there -- yes, okay.

Moving on to number 45 on this same topic --

MR. NEME: We asked you in this case for a bunch of information, which you have kindly provided. And we're wondering if, when you assembled this information, if you assembled it in Word tables, or whether these were in Excel tables and you just cut-and-pasted the Excel tables into this document?

And if it is the latter, could we get you to supply the Excel files so that kind of any analysis we want to do with it doesn't require wasting time on data entry.

MS. BROOKS: Yes, we can provide it to you in one Excel file.

MR. MILLAR: That's JT2.16.

UNDERTAKING NO. JT2.16: UNION TO PROVIDE DATA IN A SINGLE EXCEL FILE FORMAT

MR. LILLAR: Mr. Poch, how are you doing for time? You're close to two and a half hours now.

MR. POCH: Yes, we're on the last three or four.

MR. MILLAR: Okay, thank you.

MR. NEME: A quick follow up question on number (iv), Roman numeral (iv) under (a), that for several measures you provided a rebate range. For example, on air curtains, it says $600 to $3,500.

Could we ask for a follow-up for those measures where there is a rebate range, if it is because there is three tiers of size and there’s different rebates for each tier, or if the rebate is a function of something else, that you could give us that breakdown?

MS. BROOKS: Yes, we can provide you with that information.

MR. POCH: Can we roll that into the same IR? Thank you. Undertaking, rather.

MR. NEME: We already dealt with the 17(b) follow-up, so I think on to the next question, David.

MR. POCH: Right. Which is question 46, GEC 46, same series. This is about consideration of upstream interventions, the upstream incentive models.

And is there any reason you're not testing such an approach at this time?

MS. BROOKS: As stated in the response, there are things that Union wants to determine before looking at testing this in the market.

MR. POCH: Are we going to have to wait three to six years, or do you have any timeline here?

MS. BROOKS: I can't provide a specific timeline, but it is something we would be looking at in the next year or so likely.

MR. NEME: So that responds to part (b) of the question. The part (a) of the question asks whether you agree that this approach offers the potential for greater market penetration rates at lower cost per unit. Do you -- would you agree with that statement?

MS. BROOKS: I don't believe Union has the information at this point to agree or disagree with the statement.

MR. NEME: Okay.

MR. POCH: If we could go to question 47, then. You referred to feedback from intervenors. Could you tell us who those intervenors were, what the venue was? Do you have a record of the specific nature of the feedback?

MR. GOULDEN: The feedback the feedback that we're referring to is the general interest in, from many intervenors, that we go deeper with regards to our approach to DSM savings. And on that basis, we are responding as we are.

MR. POCH: Sorry, just one sec here. Just, can you just tell us what you mean by O&M repair in the -- in that answer, part (a)?

MR. NEME: You appear to distinguish between the terms O&M repair and O&M replacement, and I guess we wanted some clarification on what the distinction was.

MR. GOULDEN: There's -- in our jargon, there's two kinds of O&M. There's repair, which is fix something and keep it in place, and replacement, which is fix something by replacing it.

MR. POCH: The plain English.

MR. GOULDEN: That's the general difference.

MR. POCH: Do you have a percentage split of what you're expecting between those two categories?

MR. NEME: or what's your historical -- for part (b), you gave us -- you gave the -- the portion of total custom project savings that came from O&M, which we read to be the combination of those two things.

So is it possible to replicate table 1, but splitting out what portion is O&M repair and which portion is O&M replacement?

MR. POCH: Because you're only going ahead with some. Right?

MR. GOULDEN: Yes, I can do that.

MR. POCH: All right. Let's get an undertaking for that.

MR. MILLAR: JT2.17.

UNDERTAKING NO. JT2.17: UNION To replicate table 1 but split out what portion is O&M repair and what portion is O&M replacement

MR. POCH: Then I think we're moving on to topic 8 for the last few questions, GEC 53.

MR. NEME: Again, this question is we looked at the helpful spreadsheets you gave us. We didn't see the C&I direct install pilot program in there. Is it -- is it part of your savings calculation towards your goals?

MS. BROOKS: We currently don't have any savings attributed to the direct install pilot.

MR. NEME: Do you have a budget for it?

MS. BROOKS: We have a proxy budget of approximately half a million in 2016 and '17, which would come out of our collaboration and innovation fund -- sorry our pilot's project.

MR. NEME: Sorry, go ahead.

MS. BROOKS: So the 500,000, that would come out of the pilot budget.

MR. NEME: Okay. And are the savings that would come out of that -- would they not count, or would they count towards your resource acquisition goals?

MS. BROOKS: They would not count towards our resource acquisition scorecard.

MR. NEME: Okay.

MR. POCH: Okay. Finally, if you could turn to GEC 59, topic 8. Chris, again, I will let you deal with this one.

MR. NEME: Sure. So this is a -- where we asked you why you thought it was appropriate to support the furnace replacement offering, and you talked about the fact that there was market demand and that you wanted to promote comprehensiveness, and did you also refer us to -- you also referred us to the Staff 9 when you said that the funds would not be better spent on reaching more low-income customers with offerings that have TRC ratios that were higher than the furnace replacement TRC ratios.

And when we looked at Staff 9, it appears to say that the low-income program is not budget constrained but rather market constrained and/or constrained by delivery agent capacity.

I'm wondering if you can elaborate a little bit more on that. What's the basis for saying you couldn't get to more low-income customers if you had more budget beyond what you've included in the plan to get to them?

MS. BROOKS: So specifically what we mean by budget and market constrained?

MR. NEME: Yes.

MS. BROOKS: So --

MR. NEME: How you've come to the conclusion that they are, in fact, market constrained or delivery agent capacity constrained?

MS. BROOKS: So we have found, in our experience, in the single-family program, that there are a limited amount of sub-trades who are actually available and willing to work in this submarket.

And so our experience is that adding an additional delivery agent to our mix would not actually add any ability to get a further reach in the market and that the capacity we're at right now is -- is what we're limited by.

MR. NEME: So if you were given another $3 million, just to make up a number, to spend on low income, you would not be able to spend it. Is that what you're saying?

MS. BROOKS: We would not be able to spend it outside of anything that we've identified in Board Staff 9(b).

MR. POCH: Can I just ask, when you said -- I think you said you were constrained by the availability of trades. Did you mean installers or auditors or...

MS. BROOKS: Yes. The sub-trades that would support the program, so installation and installers, yes.

MR. NEME: Okay. So one other -- as we started looking at your answer to this question, one other -- we started -- we went back to your filing and one other question that jumped out were some of the numbers in the tables in your filing, we couldn't get them to add up. We tried to figure out, you know, what are the implications of this furnace program.

In Exhibit A, tab 3, Appendix A, table 27 shows low-income budget. Table 28 shows low-income participation, you know, by measured type, and table 29 shows the simple payback.

And when we look at the per measure rebate numbers that are shown in table 29, for example -- and multiplied them by the number of participants in table 28, we didn't necessarily get to the incentive budgets that you're showing in table 27. Are we -- is there -- should that work, or...

MR. DIBAJI: The budgets in table 27 are incentives and promotion costs.

MR. NEME: Oh, okay. So if we did that math, if we took the incentives in table 29 and multiplied it by the participation numbers in 28, and whatever number we get, the delta between that number and the incentive/promotion number in table 27 would be non-rebate promotion costs?

MR. DIBAJI: Subject to check, yes.

MR. NEME: Okay, thanks.

MR. POCH: Okay. I think that's it? Chris, unless there is anything else, I think that is all of our questions.

MR. NEME: No.

MR. POCH: Thank you, panel.

MR. MILLAR: Thank you, Mr. Poch. Mr. Brett, are you prepared to go?

MR. BRETT: I am.

MR. MILLAR: Okay. Why don't you get us started. We will probably take a break, I don't know, sometime around three, something like that.

MR. BRETT: Okay, that's fine.

# Questions by Mr. Brett:

MR. BRETT: Good afternoon, panel. My name is Tom Brett, and I represent the Building Owners and Managers Association. With me is Marion Fraser.

And I had a lot of questions, a lot of which have been asked and answered, I think reasonably well. So I will be able to shorten this up somewhat.

Could you turn up BOMA 28? I’d better give you a number for that. You're going to ask me, Mr. Smith.

MR. SMITH: That I am, thank you.

MR. BRETT: That's T5, BOMA 28.

Now this is a simple question, or a short one anyway. This discusses your RunSmart program as I read it, and our question as stated there. Why do you have this condition that anyone who wants to participate in the RunSmart program has to not have had previously any participation history for the RunSmart program?

In other words, why can't this program be a continuing -- a continuing program?

MR. GOULDEN: I can help you there, Mr. Brett, I hope.

MR. BRETT: Yes.

MR. GOULDEN: For the RunSmart program, in order to determine the savings, we use an analysis based on metered data.

MR. BRETT: Right.

MR. GOULDEN: Or Q sum data.

MR. BRETT: Right.

MR. GOULDEN: In order to have a static base line, in other words something to compare to relative to the impacts of participating in the RunSmart program, they need to have a period of history where they haven't done anything that we are aware of from an energy efficiency perspective, in order for us to reasonably identify, from metered data -- on a metered database what the savings are related to the RunSmart program.

MR. BRETT: So you're measuring -- as you say you're measuring the results of the RunSmart program. You're measuring the usage after he's participated for a year, right?

MR. GOULDEN: Yes, that's correct.

MR. BRETT: Why do you need a static base line? Can't the base line evolve over time?

In other words, you have a baseline that exists, let's say for sake of argument, before he ever enters the RunSmart program. He then enters the RunSmart programs, makes some improvements.

You get a new -- then he's, as I understand it -- and can you not then calculate a new base, a number? In other words, your calculation of his consumption after the improvements is made could be used subsequently as a new baseline, could it not?

Could the baseline not evolve over time, which would allow you to effectively keep the party in the program for longer?

MR. GOULDEN: The intention, Mr. Brett, with regards to the metered data is to be able to confirm, or reasonably confirm the savings that are realized as a result of participating in the RunSmart program.

So we need a clean data set or static baseline to start that program, to start that process.

Down the road in year 2, year 3, year 19, yes, you're right. You could then look at the baseline that may have changed over time, but what you don't -- what we wanted to avoid is we wanted to avoid a sliding baseline, if you will --

MR. BRETT: Right.

MR. GOULDEN: -- where we couldn't actually ascertain what happened as a result of the RunSmart program, rather than something else the customer --

MR. BRETT: I think I get that. And I think what you're saying is you have to have a starting point, but that you could over time, over the years you could be -- the baseline could change.

In other words, you could have a moving baseline, provided you had the intervals sufficient to understand -- in other words, you could have a person in the RunSmart program for a period of years who made, over time, certain specific changes.

I mean, as I understand RunSmart -- and correct me if I'm wrong -- it's a diagnostic cum measurement, cum -- it could have many dimensions to it. In other words, once the client signed up, the party running it or giving the advice could make a series of suggestions over a series of years, some of which would include presumably equipment replacement. Others would have to do with tune-ups, recommissionings, better operating practice, and so on and so forth.

So I guess what you're saying to me is that as long as you can get a picture, a fixed starting point in each of these phases, you could -- you could have a static baseline.

In other words, you wouldn't -- the client wouldn't be precluded from going over, over a period of years making a series of changes, so long as you had the ability to measure them properly, and you had enough of a baseline to measure. Is that fair?

MR. GOULDEN: I think that's fair, in terms of the options the customer might have to participate in DSM on a long-term basis.

MR. BRETT: Right.

MR. GOULDEN: But with regards to this program, we're basically saying we need twelve months of clean data, a static baseline, which then, twelve months later --

MR. BRETT: Right.

MR. GOULDEN: -- after the changes have been made, we can compare to.

MR. BRETT: Right.

MR. GOULDEN: So to your comment about what does this mean over the longer term --

MR. BRETT: Yes.

MR. GOULDEN: -- of course that baseline might change over the longer term. But in terms of measuring the efficacy of the RunSmart program, that is why we need the static baseline to start.

MR. BRETT: Yes, I get that. I am understanding that.

But is the RunSmart program confined to one year? Or could it just be rolled over annually and keep in place? Can it just continue on?

MR. GOULDEN: For each participant, it is confined to one year of participation.

MR. BRETT: I see, okay. Okay, well let's leave that for the moment, because there is lots of ground to cover here.

The second one I would like you to look at is T3, BOMA 12, and these are some -- in that response, we're talking there about Ontario regulation 397, which you will be familiar with.

I will give you a moment to turn that up. It is T13 -- sorry, it is T13, BOMA 12. I might have said T3. The curse of this thing are these tabs.

Okay, so T13, BOMA 12, and the question there is -- was again a simple one. How will Union make -- let me step back a half step.

As you know, under the Ontario Regulation 397, the essence of it is that the owners of -- the bill payers of various public agencies, all of the sort of entities you think of as public bodies -- hospitals, schools, colleges, et cetera, et cetera. As long as they're public agencies, they have to file information annually with the government which indicates their energy costs, including, I believe, their costs per square foot, their square footage, and plans for the future for energy efficiency plans.

So it is a fairly important, in our view -- and I assume in yours -- a fairly important body of information. And so the question is -- we were asking -- what we were seeking there is: Okay. How are you going to use this? You've got a lot of new information coming in about a very large -- about really the entire institutional sector, which is always a big sector, if you add up, as you well know, all of the players in it.

How are you going to use this information? And in your answer, you said:

"Union's effort with customers involves assistance in providing historical consumption data and recommendations to improve energy efficiency for consideration in the development of customers' energy plans."

Now, we may be misreading this, but we thought, in a sense, that you had reversed the order there. You were really saying -- you were kind of walking past -- past us.

We're saying here's a whole lot of information that you've now got that you didn't have before. How are you going to use -- how are you going to use this information to develop your energy efficiency plans?

And your answer seemed to be, "Well, we're in the business of advising customers on how to improve their energy efficiency." Yes, you are, but that really wasn't the question.

The question is, you know, what use -- the question goes a little further than that. It's what use you will make of the information.

You've been told -- I don't want to go on too long, but you've been told you know what an awful lot of agencies are thinking of doing to improve energy efficiency, because they have to state what their plans are.

So then the question really is: How do you lock on to that? How do you link on to that and get leverage from that?

[Witness panel confers]

MS. BROOKS: So our intentions is that we would be using Ontario Regulation 397 with our account manager, so for them to work with customers to identify projects and to educate them on opportunities in their facilities.

MR. BRETT: So you might use it to identify customers, for example, that are -- that appear to be on the verge of doing projects? You might -- it would help you identify prospects for your programs. Is that one of the things you would use it for?

MS. BROOKS: We would be using it to help customers identify new opportunities in their facilities.

MR. BRETT: Okay. To identify some of the services that you offer?

MS. BROOKS: Correct.

MR. BRETT: Okay. Because they've already identified the project they want to do in the -- or at least the -- perhaps not all of details of the project, but they've told the government that they're going to do some projects in this area if they're, let's say, a university.

So you would take that information and go back and say, "Okay. I you're going to -- if you're thinking of doing this, then here's some ways we could help you." Is that basically kind of...

MS. LYNCH: Through our account managers, they'd be working with our customers, so we have done specific pieces around this, so educating them on what the expectations are, what -- what help we can provide on how they identify those opportunities so they're meeting the requirements under the plan. So we've had many requests related to that for -- for assistance, and we've had particular materials we've put together for the purpose of helping educate them on what they can do and how our account managers can assist.

MR. BRETT: Okay. That's -- that's helpful.

Now, the next question is -- just give me a moment here. This is a question that I can't give you a specific reference for because it's a bit of a more general question. But I don't think it is -- I think it's in your -- squarely in your area of competence.

In a general way, are you familiar with energy service companies and what they do? When I speak of energy service companies, I'm meaning people such as Ameresco, Honeywell, Johnson. Are you familiar with their activities in a general way?

MS. BROOKS: Yes, we are.

MR. BRETT: And do you -- in your service area, in your franchise area, are the ESCOs active, would you say? Are they active in different sectors, for example, the institutional sector, the commercial sector? Where would you say they're most active in your franchise? Or if you have that maybe in...

MS. BROOKS: So ESCOs have mainly been active in the institutional sector, so hospitals and schools.

MR. BRETT: So schools, hospitals.

MS. BROOKS: Correct.

MR. BRETT: Now, do you -- are you basically -- are you familiar in a general way with their business model and the contracts they use and, you know, their -- where they've been successful, where they've been not so successful over the years? Have you sort of kept track of that?

MS. BROOKS: So Union has a high-level knowledge of ESCos' business models, contracts, and financing.

So Union is experienced with the analysis of energy saving technologies, implementation, and energy saving benefits of the improvements contained within the ESCO contracts.

MR. BRETT: Okay. And do you -- do you collaborate with the ESCOs? What form does your work with the ESCOs take?

Do you work -- how do you work with them, or what's -- how do you kind of deal with them in general? I'm not asking for specific information on a specific ESCo.

[Witness panel confers]

MS. BROOKS: So Union would view them as trade allies of ours.

MR. BRETT: As?

MS. BROOKS: Trade allies.

MR. BRETT: Yes. Yes. Okay. All right.

Now, would you look -- would you turn up T3, BOMA 5 for a moment? Now, this really was -- we asked you about -- you know, this is sort of a sensitivity analysis question. We had asked about, you know, what would the savings and budget be if you were constrained to the extent of $3 per month rather than $2 per month per typical residential customer.

And the answer -- part of your answer was, I think, of interest to us. I just want to make sure I have interpreted it correctly.

You say here that Union provided as a sensitivity analysis -- and I guess you did this in your evidence -- Savings associated with a $10 million increase in the budget. The average residential rate impacts associated with a $10 million increase in the budget are 2.18 a month and 2.51 a month in Union south and north respectively.

Now, do I read that correctly if I say that the incremental amount, then, is 18 cents and 51 cents a month? I mean, bearing in mind that your base budget is, what, something in the order of $60 to $70 million?

I just want to -- I just want to make sure I'm reading that correctly. And I think that's what it means, but I want to...

[Witness panel confers]

MR. BRETT: If you want to take an undertaking, you can, you know, if you would rather...

[Witness panel confers]

MR. SMITH: Mr. Millar, we were just conferring, and it might make sense to have the break now, and that will give the panel a little bit more time to identify the information that's been requested.

MR. MILLAR: Is 15 minutes sufficient for a break?

MR. BRETT: Yes.

MR. MILLAR: Okay. Let's return at 10 after three.

### --- Recess taken at 2:55 p.m.

### --- On resuming at 3:10 p.m.

MR. MILLAR: Let's get started again, Mr. Brett.

MR. BRETT: Yes. I think the company was going to have an answer on the last question I asked.

MR. TETREAULT: So, Mr. Brett, you were referencing BOMA 5, as well as appendix G in tab 3, with regard to sensitivity analysis associated with an incremental $10 million spend.

MR. BRETT: Right.

MR. TETREAULT: I think, if I understood your question, it was are those amounts, the 2.18 and 2.51 cents, relative to two dollars.

MR. BRETT: Right.

MR. TETREAULT: And the answer is no.

The best comparison would be back to Exhibit A, tab 3, appendix E, schedule 3.

For M1, the monthly rate impact was $1.92. So that's the correct comparison to the $2.18 referenced in appendix G, and in the BOMA IR response.

MR. BRETT: Can you just give me that reference again. The table here is -- okay, Exhibit A.

MR. TETREAULT: Exit A, tab 3, appendix E, schedule 3.

MR. BRETT: Yeah, okay.

MR. TETREAULT: These are the 2020 bill impacts.

MR. BRETT: So these are 2020. What are the 2.18 and 2.51? Those are 2020 rate impacts?

MR. TETREAULT: Yes, those are rate impacts assuming an incremental $10 million spend.

So the correct comparison is, for M1, the 2.18 in the sensitivity analysis relative to the 1.92 that is on line 6, column L of schedule 3.

And for rate 01, the comparison is between the $2.51 referenced in appendix G and BOMA 5, relative to the $2.20.

MR. BRETT: Okay.

MR. TETREAULT: That can be found at appendix E, schedule 3, line 1, column L.

MR. BRETT: Okay. Two dollars, is that a 2020 to number as well?

MR. TETREAULT: That was a 2020 number, and it is the average impact for M1 and rate 01, whereas the two figures I just gave you from that same -- from schedule 3 represent the specific impacts for those two rate classes.

MR. BRETT: I see. So the two dollars is the what? The weighted average of -- or it's the impact on the two together?

MR. TETREAULT: That's correct.

MR. BRETT: And the -- and is the assumption that the then million dollars is spent in the same way that the current budget is spent, effectively pro rata? Or is the assumption that the ten million is spent entirely on the -- on M1 and on the two residential classes?

MR. DIBAJI: There's a budget breakdown in appendix G of tab 3 that shows exactly what programs that ten million is going towards.

MR. BRETT: Right. But is it any different -- I will look at that. But is it any different than the way the current proposed budget, forgetting about the ten million, would be spent? Is there a shift?

MR. DIBAJI: Yes.

MR. BRETT: All right. So is the shift to put it all on M1 and M2, or all on the residential?

MR. DIBAJI: I would have to confirm, but let me pull it up.

MR. BRETT: Okay. If you wish, you could give me an undertaking just to --

MR. DIBAJI: I think we have it.

MR. BRETT: Okay.

MR. DIBAJI: Yes. It is outlined in Exhibit A, tab 3, appendix G, page 7.

MR. BRETT: Page 7?

MR. DIBAJI: Yes.

MR. BRETT: Okay.

MR. DIBAJI: In table 3, you will see the exact breakdown.

MR. BRETT: Okay. Will that tell me how it compares to the existing budget breakdown?

MR. DIBAJI: It will let you know which programs and which offerings have incremental budget added to them.

MR. BRETT: Right. But my question is, you then have to compare -- in order for this to be, in my view, a proper number -- well, I shouldn't put it that way.

It would be interesting to know how that compares to the -- does the incidence of how it is spent differ from the incidence of the base budget, that’s the question -- in other words, the relative amounts that are spent in the various rate classes, or is it essentially the same?

[Witness panel confers]

MR. DIBAJI: Yes, to get that comparison I would draw your attention to Exhibit A, tab 3, page 6, table 2, which is the table that outlines Union's budget for 2016 and 2020.

In that table, you will see the 2020 budget amount shows the budget per program; so residential, commercial industrial.

MR. BRETT: Right.

MR. DIBAJI: Within that, you will see relative to what we're proposing in appendix G, if it is a relative program increase.

MR. BRETT: Okay. So all right, I can check that out later.

But you're saying that each of the programs is not increased proportionately.

MR. DIBAJI: Right.

MR. BRETT: There is a skewing towards what? Residential?

MR. DIBAJI: Yes, it would be skewed towards more residential and commercial-industrial.

MR. BRETT: Yeah, okay. All right, thank you.

Moving on to the -- just very briefly, you probably saw the discussion that I had yesterday with Enbridge around the topic of customers with multi buildings, either school boards, or it could be a number of different things, banks, university campuses and the like.

And we spoke about eligibility and the impact -- and whether you looked to the organization, or to the specific building.

Do you have any program where this differentiation is relevant? In other words where, if you were to look at an individual school for example you might say, no, this doesn't apply. But if you were to look at the agglomeration of schools in a board you would say yes, this program does apply.

I think Enbridge's answer was we don't have a situation like that, in terms of eligibility. I'm not asking for other ways in which the information is used, but just whether it would rule out any particular building from any program.

MR. GOULDEN: With regards to eligibility, Mr. Brett, specifically with regards to the custom program, there's nothing which hinges on customer size, although certainly bigger customers and bigger projects generally have more attention than smaller projects.

MR. BRETT: I understand.

MR. GOULDEN: However, we also have an extensive national account program.

To your other question yesterday about schools and eligibility --

MR. BRETT: Of buildings, yes.

MR. GOULDEN: Yes, we would -- in our parlance, we would deal with the meter. So it would be the total cubic metres per meter. So it would be per school as opposed to per school board with regards to how we would deal with specific projects.

MR. BRETT: With the eligibility question?

MR. GOULDEN: You're not limited. But again, with regards to eligibility, we care about per meter. Not per entity, like a school board or a national --

MR. BRETT: Okay. So you're different than what Enbridge was telling us, I think.

MR. GOULDEN: I'm not sure.

MR. BRETT: Well, okay, fair enough. But I think in that example -- and I mean, I'm asking this as sort of a --

Is there a program where this is a factor for you, in other words -- or not, where the eligibility issue even arises? In other words, you have a national account program. So let's say one of those national accounts is a bank that has 300 offices in your franchise area.

Does anything turn on whether that bank qualifies for any particular program of yours and given -- does anything turn on the actual size of the different branches, or do all the branches automatically get included in any program that you would -- that you would put in place for that bank, or school board?

MR. GOULDEN: They're generally all included, Mr. Brett, but maybe a more relevant example, at least from Union's perspective, is with regards to our performance-based program. So both the SEM program and the RunSmart program --

MR. BRETT: Right.

MR. GOULDEN: -- the eligibility criteria are per location.

MR. BRETT: Okay.

MR. GOULDEN: The 50,000 eligibility threshold for RunSmart commercial customers is per location, not per --

MR. BRETT: You say it's the building. So if you had a -- that's clear and helpful.

If you had an owner, a pension fund that owned, you know, 50 buildings and some of them were under 50,000 GJs or whatever the -- is it square feet, square footage or --

MR. GOULDEN: M3s I think I was referring to.

MR. BRETT: Yes, okay. Well, you know, if some of them were under that and some were over, you're dealing with the pension fund, but you would be just dealing with those buildings that met the threshold. Is that what you're...

MR. GOULDEN: For those particular programs, but for all of our other programs, no, we would deal with them on a national account basis.

MR. BRETT: Yeah, okay. Well, just on the question of the strategic management, you've discussed this at some length, and I think, as I understand it, you made it clear that it simply applies to industrial.

So even though you may have some large institutions, or in my example an entity that -- well, let's say a university campus might be the closest thing that comes to mind. They would not qualify for the SEM is it -- yes, the SEM. I'm right in that, eh?

MR. GOULDEN: That's correct.

MR. BRETT: And do you have anything like the SEM that would apply to that university that would have similar characteristics to the SEM? I don't think so, eh?

MR. GOULDEN: No. They could participate in the RunSmart program, but they would be much larger than 50,000 cubic metres, Mr. Brett.

MR. BRETT: Yes, it would. It would be huge.

MR. GOULDEN: Yes.

MR. BRETT: And it would have -- well, then the -- now the SEM, though, is a program with a term the length of the -- of your program, a six-year term. Right? And it could carry on -- I suppose it could carry on even beyond that, could it? It certainly is designed to last for five to six years.

MR. GOULDEN: That's correct.

MR. BRETT: And -- and it -- as I understand it, in that program, it's maybe the only one you have like this other than RunSmart where you measure for a year.

But in the SEM program, you actually measure the savings, as I understand it, or the consumption each and every year. Is that correct?

MR. GOULDEN: That's correct.

MR. BRETT: They're metered. And so you're keeping track of the development of the custom program, the strategic program in terms of different things that happen over that period.

MR. GOULDEN: Yes. We would actually have a third party do a Q sum analysis to identify the incremental savings --

MR. BRETT: Each year.

MR. GOULDEN: -- on a year-over-year basis. That's correct.

MR. BRETT: Okay. You'd have a third party do that?

MR. GOULDEN: That's correct.

MR. BRETT: Okay. And is it -- did you have the same third party, or do you use different engineering firms or -- not that it matters, I suppose, much.

MR. GOULDEN: We haven't figured that out yet.

MR. BRETT: Okay. And that's -- as I understand it, we asked you a question. I believe it was BOMA 23. This was one of the more interesting ones, and we probably should turn it up for a moment, because we got into some -- yes, we had really -- the question was:

"Why do performance-based programs which are evidence-based and rely on detailed customer data, only represent 2 percent of the total program budget?"

And if I were asking that question again today, I would say -- I wouldn't necessarily use "performance-based programs" as the phrase. I would just say: Why do the programs where you actually measure the savings, metered savings, only account for 2 percent of your budget?

My understanding just from reading through what you filed is that -- that's, by the way, BOMA 23, tab 1.

My understanding, reading through what you filed, is that the SEM program, as you say, measures savings every year. The Run-it-Right program is a one-year program, and it measures savings in that one year. Right? After the program is over? Is that correct, or have I got that wrong?

MR. GOULDEN: That's generally correct, Mr. Brett. And what might actually be helpful is to turn up topic 2, Board Staff 2 response, where we've identified at parts (b) and (d) our approach with regards to metered savings.

MR. BRETT: (B) and (d)?

MR. GOULDEN: Yes. (B) and (d), that's correct.

MR. BRETT: Yes. No, I -- okay. That's fair enough. Now, the residential program, residential behavioural program, that brings me to a question that I wanted to ask about BOMA 23, if you look at the last paragraph there. And we've talked about Run-It-Right. We've talked about SEM. We have agreed that, in those two cases, you do measure the savings. You have actual measured metered savings.

I'm trying to use all my adjectives here to make sure I cover different ways that people express this.

In the last paragraph, you say:

"In addition to the performance-based scorecard offerings, Residential Behavioural, Low-income Benchmarking..."

And we will forget about some commercial/industrial custom projects. We've talked about that. Now, this is the phrase I want to ask you about:

"...Use metered data for estimating savings that rely on detailed customer data."

Now, can you tell me how that works, what that means, and maybe give me an example? I suspect the example is with a residential behavioural program, but how does that work? What does that mean there, really?

It doesn't mean you're actually -- it doesn't -- it says you're using metered data for estimating savings. I don't get that.

[Witness panel confers]

MR. MILLAR: Whoever is on the phone, we can hear you.

[Witness panel confers]

MS. BROOKS: So in reference to the residential behavioural program, we would be looking at the actual consumption data by customers who are in a control group against the rest of the population who is not in the control group. So we would actually be using metered consumption data to verify the savings.

MR. BRETT: Okay. So you're -- and that's -- you would have -- that's applicable to how many residential customers? What's your plan for that?

MS. BROOKS: We're proposing for 300,000 residential customers.

MR. BRETT: 300,000? And what would be the measures that you're talking about there? Would you just remind me of those?

MS. BROOKS: So this would be behavioural, so this is where we would be sending letters to residential customers to tell them about behavioural modifications they can make in their household in order to reduce their overall consumption.

MR. BRETT: So you have a control group which is the group that are not getting the letters, and you would know what their consumption -- or you would be measuring their consumption, what, for a period of a year or how long? A year? And then -- and you would be measuring it. And then the other group would -- the group that's getting the letters, you'd measure that group for the same period of time. Is that right? Like, for a year after they get the letters so you're doing apples and apples?

MS. BROOKS: That's correct.

MR. BRETT: And you're comparing the two results?

MS. BROOKS: Yes.

MR. BRETT: 300,000, you are going to do, are you?

MS. BROOKS: Yes.

MR. BRETT: Okay. And you -- how long will it take you to ramp that up? Will that be started in 2016, or will you have all 300,000 in 2016?

MS. BROOKS: We'll be starting to implement the program in 2016 in terms of the start-up of the program.

MR. BRETT: Right.

MS. BROOKS: And then in 2017 is when we'll start seeing results.

MR. BRETT: So you -- but you'd expect to send your -- your initiative would be launched with the 300,000 in 2016. Is that the idea?

MS. BROOKS: Yes, at the end of 2016.

MR. BRETT: Okay.

MR. BRETT: So the period you're measuring is 2017 basically?

MS. BROOKS: Yes.

MR. BRETT: Just a general question on the same IR. Do you view providing incentives for specific pieces of equipment inconsistent with using measured savings as the basis for utilities’ performance, utilities' scorecard results, for example?

I realize you don't use measured savings at the moment in a large way in the scorecard. But do you see anything inconsistent, in principle, with being able to both provide specific incentives for specific equipment retrofits or replacements, sort of your -- speaking generally, your prescriptive savings approach with having the overall record being kept, and performance being judged on the basis of actual savings, measured savings?

[Witness panel confers]

MR. GOULDEN: We don't view that as inconsistent, Mr. Brett, provided the use of the metered savings is appropriate.

MR. BRETT: Thank you. Have you done any analysis yourselves with respect to your retrofits that you incent by way of prescriptive -- what I will call prescriptive measures, the prescriptive measures that you use, where I know you have estimates of savings, forecasts of savings that are done by engineering firms and other experts and you use those forecasts, as I understand it, in your scorecard among other things.

Do you -- have you done any studies yourself of the actual savings that result, that have resulted from the implementation of various measures for which you've given incentives, outside of -- I'd have to say outside of obviously the SEM and the Run-it-Right?

But in the cases -- what I am looking to are the cases where you have specific incentives, and they are in different places in your evidence, but there's lists of equipment that, when they're replaced, will attract an incentive, right?

And so you've got a number, a savings number that you say that is going to do, based on the analysis that's been done for you or by you by professionals.

My question is: Have you done actual studies of your own, or have third parties perhaps -- add on this idea: Have third parties done studies for you to compare the actual result, in terms of consumption saved by doing that measure, to be able to compare it with what your engineering experts said you should get?

[Witness panel confers]

MS. LYNCH: In reviewing all of the prescriptive savings assumptions that we use, we go through a process, one of which is currently underway, which is a TRM, the technical reference manual review, which is reviewing all of the assumptions that are the basis for the savings claim.

And there's research and studies that are done within those that would be deemed the best available information within the industry for substantiating those assumptions.

MR. BRETT: But you don't -- the best -- okay. But you don't actually -- you don't do your own direct analysis of the consumption in a range of your customers to test that against what the best knowledge is?

MS. LYNCH: Correct.

MR. BRETT: Okay. I shouldn't say the best knowledge. I don't know that -- the best forecasting knowledge, I guess I would say.

I think that in the interests of time, I think I just have one more question really I want to ask you, because I think most of the rest of this has been covered pretty well.

Just as a sort of iconic question, really, you were asked in BOMA 5 -- sorry, I guess this would be tab 6, BOMA 5. Let's see here -- no, sorry, that's not right. It's the other way around.

It is tab 5, BOMA 6, and it is just a simple question here. You know, you have this requirement from the Board to do a study with respect to, as I understand it, pay for performance.

The question was: Have you considered doing this jointly? One of the things you have to do -- or you would do, you say -- is you would do some kind of a jurisdictional study. You would look at what other jurisdictions are doing, and in your answer you talk about some the states, some of the documents you would look at.

We just asked would you do that on a coordinated basis, or would you do a common jurisdictional review with Enbridge. And you said, well, where appropriate.

What I was just going to ask you is: Wouldn't it be appropriate in this situation? We're not talking here about what you actually decide to do in the last analysis, but just how you do your multi-jurisdictional study. Wouldn't it be appropriate just to do one study?

MS. LYNCH: I do think it will be appropriate. Our question was really just around the timing, ensuring we were aligned in the timing expectations of when we intended to complete the study.

MR. BRETT: So subject to that, you would look at it as a single study?

MS. LYNCH: Correct.

MR. BRETT: The only other thing I wanted to ask is with respect to the building codes -- and let's see if I can give you a -- no, I think I will leave that.

I have one other question on BOMA 22, and this is a short one. We had asked you, I think, about -- yes. We asked you -- you talked about a holistic emphasis in your programming, and you mentioned some of the things we've talked about and you've talked about with others.

Then you mentioned the direct install pilot, and I wanted to just ask you briefly about that. Is that meant to be a joint -- I think you may have mentioned this earlier today, and I apologize if you have. Is that meant to be a joint gas-electric pilot?

That's the BOMA -- it is T5, BOMA 22, and direct install pilot is how you describe it.

I guess the question I am getting at is what is holistic? I mean, when I see holistic, I usually think of -- a kind of synonym might be comprehensive, you know, something along the lines of what you do in Run-it-Right or SEM.

Now, how does the direct install pilot fit into this? Perhaps you could just summarize what aspects of it you consider kind of innovative.

MS. BROOKS: So just to confirm, are you looking for how do we consider the direct install pilot a holistic approach?

MR. BRETT: Right.

MS. BROOKS: So essentially, we're looking to work with small business customers to take a comprehensive review of their facility.

MR. BRETT: Right.

MS. BROOKS: So we would reference you back to key priority F of the Board. So really a holistic program is looking at identifying and targeting all energy saving opportunities throughout a customer's home or business.

So that's how we have identified holistic.

MR. BRETT: Is it jointly done with the electric utilities? Or is it just gas at this stage?

MS. BROOKS: We are looking to see whether or not it could be a joint program offering, but nothing has been confirmed at this time.

MR. BRETT: It sounds like it might be an interesting one to try.

Thanks very much. Those are my questions, Michael, thank you.

MR. MILLAR: Thank you, Mr. Brett.

Mr. DeRose, are you there?

MR. DeROSE: I am. Happy to go.

MR. MILLAR: Yes. Why don't you go, and then we'll have Mr. Shepherd.

# Questions by Mr. DeRose:

MR. DeROSE: Sure. Good afternoon, panel. I apologize for not being there in person.

Panel, I have three areas left. The first will relate to the T1/T2 split issue. The second will relate to -- I have a couple of questions about rate impacts.

And then the third is with respect to your targets of 75 percent to 100 percent and 125 percent as opposed to the 150.

So let me start with the T1/T2, and I'm following up. Mr. Quinn asked you some questions about this this morning. And if I could have you turn up -- it's Exhibit B, T5, CME 7.

MR. SMITH: That is under tab --

MR. DeROSE: Tab 5. Do you have that?

MR. GOULDEN: We do.

MR. DeROSE: Okay. So, first of all, in the answer to sub (a), you advised that 28 T1 customers have participated in Union's custom program since January 1st, 2013.

When you say "custom program," is that -- would you view those custom programs as falling within the -- what is later described as commercial/industrial programs, or would you describe that as falling within the direct access large volume program?

MR. GOULDEN: It's Bryan Goulden here, Vince, and I would characterize it as falling within the commercial/industrial program.

MR. DeROSE: Okay. And so -- and really I guess what I'm getting at is trying to understand what is going to change for a T1 customer.

Is it -- am I right, then, that had the T1 customers been put into the commercial/industrial programs in 2013, so January 1st, 2013, the same time that the split happened, that they would have still received -- those 28 customers would have received or could have received the same custom programs that they received?

MR. GOULDEN: Absolutely.

MR. DeROSE: Okay. And did any T1 customers since 2013 -- would they have received any of the program offerings which you would describe as direct access large volume program as opposed to commercial/industrial programs?

MR. GOULDEN: No, they can't, because they're restricted from doing that because they're not a T2 or a rate 100 customer.

MR. DeROSE: Okay. So the -- really what you're describing as a change has actually already occurred de facto since 2013.

MR. GOULDEN: Yes. In fact, in 2013, the T2 rate 100 program became a new program, and the T1s remained part of the old program, if you will, which is the CI program.

MR. DeROSE: Okay. So other than for the scorecard purposes, would any of the CME members who are T1 experience anything different in 2015 than they would have in 2013 and 2014?

MR. GOULDEN: No, they wouldn't.

MR. DeROSE: Okay. Thank you. If I can then have you turn to -- this is now under tab 3. It's CME 13. And it's actually going to be attachment 1 to that interrogatory that I am going to ask a few questions about.

MR. TETREAULT: It's Greg Tetreault, Vince. We have it.

MR. DeROSE: Okay. Well, thank you.

MR. TETREAULT: I assume it's for me.

MR. DeROSE: Yes, probably. The first question is this: The rate M7 large in the south, it shows that the percent of bill impact -- and I'm going all the way to the right here, so this is in -- it's showing an 8.6 percent increase. Do you see that?

MR. TETREAULT: Yes, I do.

MR. DeROSE: Is -- can you provide an explanation for the major drivers for rate M7 increasing so dramatically compared to all of the other rate classes? I mean, it's more than double the second largest increase.

MR. TETREAULT: Yes. I can help you there. We do describe this in evidence in some detail, which is also why we have a proposal to pool the costs for rate M4, M5, and M7.

But, in essence, you have a 2016 to '20 DSM plan that reflects the current number of customers in rate M7, so the budget dollars reflect those customers, whereas for ratemaking purposes, which is what this attachment is, is based on the -- for ratemaking purposes, there are really only a handful of customers in M7.

So you'll recall that, effective Jan. 1, 2014, we changed the eligibility criteria for M4, M5, M7.

MR. DeROSE: Right.

MR. TETREAULT: And that resulted in approximately 22 customers transitioning to M7.

So as I mentioned, the DSM programs reflect that greater number of customers, whereas the rate impacts here and our ratemaking during IR are reflective of the handful of customers that were in M7 at the time we rebased.

MR. DeROSE: Okay. And then we're going to come back to CME 13, so, I guess, don't put that one away, but you mentioned the pooling of M4, M5, M7.

And I will give you the reference, but I don't think we need to turn it up unless you tell me that you want to, because it's under a different tab, tab 10, CME 14, just for the record.

We asked some questions about the pooling of M7, M4, M5.

Can you just -- and I appreciate in the IR you say that there is not some sort of a cross-subsidy between the rate classes, but I'm seeing that, if your pooling is accepted, the M7 would be reduced to 4.2 percent of its total bill from the 8.6, and M4 and M5 would go up slightly.

And I'm just having difficulty understanding how that is not a -- how M7 isn't being somehow subsidized by M4 or M5.

MR. TETREAULT: In my view, they're not, Mr. DeRose. And the reason for that is what we're trying to do by pooling the costs is to recognize that the majority of those M7 customers from a ratemaking standpoint, in terms of the building units we used to design rates during IR, are still in either M4 or M5. That's really the intent of this proposal. And what that will avoid, among potentially other things, is an over-recovery of costs in M7, where ratemaking reflects only a handful of customers, but the DSM program reflects those customers plus an additional 22.

So, no, I wouldn't -- I wouldn't describe it as a cross-subsidy at all. As -- as I -- as I mentioned, it's really a way of recognizing where the customers are for ratemaking and aligning or pooling the DSM costs to be consistent with that.

MR. DeROSE: Okay. I've got you.

And are there DSM programs which would be offered to M7 that are not offered to M4 or M5 or vice versa?

MR. GOULDEN: It's Bryan Goulden, Vince, and, no, they're all the same for M4, M5, and M7.

MR. DeROSE: And so from a pooling perspective, there is no situation where a customer in, let's say, M4 would be paying for a program that is only offered to M5 or M7? They have access to everything?

MR. GOULDEN: That's correct.

MR. DeROSE: Okay. Can I take you back to CME 13, tab 3?

I have a question with respect to the monthly bill impacts, and I am looking at the heading which says "Total 2020 DSM amounts in bill", and you have the annual bill impacts and then the monthly bill impacts.

Do you have that?

MR. TETREAULT: You're referring to attachment 1, Mr. DeRose?

MR. DeROSE: Yes.

MR. TETREAULT: Yes, we have it.

MR. DeROSE: Now, the first question is with respect to Union north rate 1.

You show a monthly bill impact of $2.20. Is that not in excess of the two dollar benchmark that the Board set out for a reasonable monthly bill impact for residential customers?

MR. TETREAULT: Yes, the Board guidelines reference approximately a two dollar monthly impact. And as you've noted, rate 1 is slightly over that.

I would direct you to -- I think this is line 6 in this attachment. M1 is slightly under the two dollar benchmark, if you will, at $1.92.

So from our perspective, to adhere to the guideline, we've looked at both the residential rate classes or largely residential rate classes on a combined basis, to ensure that we're consistent with the Board's direction.

MR. DeROSE: Okay. And the Board gave you guidance with respect to residential customers, but did not -- at least, I don't believe they provided specific -- the same level of detailed guidance with respect to the larger rate classes.

Did you apply any type of internal test for reasonableness? Or did you take the fact that the Board set for residential that they're currently about a dollar, that it should be no more than two dollars, so to me it is a doubling.

Did you apply a similar test to other rate classes?

[Witness panel confers]

MS. LYNCH: Mr. DeRose, I would just point you to the DSM framework, section 4.2 on page 18.

In the third paragraph, there is a reference there where the gas -- the Board notes that the gas utility should ensure that the overall cost increases to all other rate classes are generally proportional with the guidance outlined with regard to the residential customers.

MR. DeROSE: So have you done that? And, if so, what was the test that you applied? How did you undertake that assessment?

[Witness panel confers]

MS. LYNCH: We didn't provide a specific test per se, although we did look to ensure that the ranges were fairly consistent.

MR. DeROSE: Did you at any point look at what the monthly bill impacts are currently, and compare them to what they will be in 2020?

[Witness panel confers]

MR. TETREAULT: Vince, it’s Greg Tetreault here.

I don't know that we did the monthly impact that you reference, but I would point you to a schedule in Exhibit A, tab 3, appendix E.

So on schedule 3, what we've outlined here is the percent of bill that DSM costs represent for each rate class.

And so, you know, we used this as a test, if you will, or as a bit of a benchmark to see what the rate impacts look like for typical customers in all rate classes.

And as you can see in column N of schedule 3 in appendix E, outside of the large volume program, the percentage bill impacts, I'll say, are quite similar amongst all of the rate classes within a fairly -- within a fairly tight range.

So from my perspective, that was a bit of a checkpoint, if you will, as to whether the bill impacts for all rate classes were reasonable.

MR. DeROSE: And I appreciate that, thank you for that.

The way that I read the Board's direction on page 17 and 18 of the guidelines was that the typical residential customers just under a dollar -- we'll say a dollar -- it should be no greater than two dollars, so that it shouldn't be more than double.

Perhaps this is the way I could ask the question: Would it be a lot of work to go back and just -- and I don’t need to calculate every single rate class and provide a schedule, but just to identify whether any rate classes -- whether the current bill impact will be more than doubled by your proposed application and, if so, which rate classes?

[Witness panel confers]

MR. DeROSE: And I will even give you an out. If you tell me that you have to run an entire set of data and it's going to be an enormous amount of work, I will back off.

But if it's something that you can do relatively easily, just to provide comfort to those of us that are representing customers who are not residential rate classes that bear -- that the DSM rate impact on their bills will be approximately the same as the Board guidance, so no more than double, that is really what I am looking for.

MR. TETREAULT: I think we have something, Mr. DeRose, that may be useful. It may not perfectly answer your question, but I think it will give you a sense of what you're looking for. And it is the same schedule, so I am still on Exhibit A, tab 3, appendix E, schedule 3.

We were looking at the right-hand side of that schedule. If we look at the left-hand side, you can see in column A and column C, you've got in those columns the 2015 DSM budget in rates in column A, and the 2020 proposed DSM budget in rates in column C.

And by way of example, if we look at rate 20, you would see that the DSM budget has gone roughly from a million dollars to approximately $2.1 million -- so again, on a money basis, approximately double.

Likewise, you have rate M5, $2.7 million in current approved rates, and based on our proposed 2020 budget DSM costs of $4.3 million.

Now, I have just touched on a few rate classes, but I would say that is representative of all rate classes.

MR. DeROSE: And would any of the inter-class migration that has occurred over the last few years affect the -- I appreciate what you're describing is the amount in budget for rate class. So if the budget isn't doubling, the rate impact shouldn't double, unless there has been significant rate or inter-class migration.

Are you aware of any interclass migration that would result in the bill impact being, let's say, three or four times more even though the budgets are not increasing that much?

MR. TETREAULT: No. There's nothing I can think of in particular. We've talked about the migration already associated with some of the eligibility changes for M4, M5 and M7. But beyond that, I can't think of anything. As you know, our rates during our five-year IRM term are all based on the -- essentially a 2013 Board approved volume forecast throughout the term of it.

So I can't think of anything else that would be driving those type of bill impacts for individual customers who may have switched classes.

MR. DeROSE: Okay. Now, thank you very much for that. I do not require an interrogatory. That's fine.

Can I turn to the last topic --

MR. SHEPHERD: Sorry, Vince. Before you go on to the next one -- it's Jay. On that same schedule, you have a column H, and am I right in assuming that that's the closest you've got to the rate increase impact for individual classes? So 190 percent increase for rate 1, for example?

MR. TETREAULT: Yes. That 190 percent represents the -- essentially the difference between 3.8 million in 2015 rates and 11.1 for rate 1 in 2020.

MR. SHEPHERD: Yes. It's actually calculated as the difference between the volumetric rate in 2015 and the volumetric rate in 2020, isn't it?

MR. TETREAULT: Yes. It's using a unitized rate, Mr. Shepherd, to perform that calc, but based on the same billing units.

MR. SHEPHERD: And so that impact for the smaller customers in a class, it would overstate their impact because they have some of their rate. Their bill is fixed charge. But for the larger customers in the class, it would be much closer to what the actual bill impact is. Right?

MR. TETREAULT: I'm not sure I can agree with you with regard to the fixed charge. None of these costs are recovered in a fixed monthly charge.

They're all recovered in volumetric rates.

MR. SHEPHERD: Well, that's exactly my point. So if you're a small customer in rate 1, for example, your volumetric rate is going to go up 190 percent, but that's only half your bill, whereas if you're a large customer in that class, it is almost all your bill.

MR. TETREAULT: From that perspective, that's fair.

MR. SHEPHERD: Okay. Thanks.

MR. DeROSE: If I can turn you, then, to -- unless, Jay, are you done?

MR. SHEPHERD: Yes.

MR. DeROSE: Okay. If I can then turn you to the last topic, and if I can turn you to tab 2, this is Board Staff Interrogatory No. 4.

MS. LYNCH: Yes, we have it.

MR. DeROSE: And if I can start at page 3 of 4, table 1. Do you have that?

MS. LYNCH: Yes.

MR. DeROSE: And, first of all, do I understand right that this is the lower band target and upper band that you are proposing or that you're seeking approval from the Board for, for resource acquisition and low-income?

[Witness panel confers]

MR. DeROSE: I have to admit I didn't think that would be a trick question.

MS. LYNCH: We were just conferring. It's just the cubic metre metrics.

MR. DeROSE: Right.

MS. LYNCH: Yes.

MR. DeROSE: Okay. And I take it that, if you're proposing the target there of 11 -- 1,110 million cubic metres as a target -- so this is the 100 percent level -- you're comfortable with that at your 100 percent target?

MS. LYNCH: Yes. That is what we proposed as our 100 percent target.

MR. DeROSE: Okay. And if I -- then if I take you back to page 2 of 4, in the first paragraph, the last sentence, you describe figure 1, which is just below the sentence, and you say:

"If Union had used 75 percent, 100 percent, and 150 percent scorecard design, it would have resulted in lower 75 percent and 100 percent target levels in order to ensure the upper band level was attainable with the available budget."

So do I understand it right that you are not using the 100 percent; you are not assessing what the 100 percent target that you can achieve is and then derive the -- either 125 or 150 of it, but rather, you are using the upper-most level, the upper band, as your pivot point for lack of a better term?

MS. LYNCH: In establishing the targets, we considered the budget that's available.

So in this case, we have a target budget and then we have the availability of a 15 percent overspend.

MR. DeROSE: Is there anywhere in the Board's guidance that has said that you should -- that you should calculate your targets by first determining what is achievable on the highest upper band and then work it backwards from there?

MS. LYNCH: Union's perspective is the expectation is that we would establish our targets based on the budget guidance that we've been provided.

MR. DeROSE: Or let me rephrase it, then. Why would you not determine what is the 100 percent target that you can achieve and use that as your pivot point to then derive the 150 or 125 and the 75 instead of using the upper-most band?

MS. LYNCH: Just for clarity, we did do that. But then in looking at how we would establish the upper band, it's within the budget or the parameters available for achieving that upper band.

So in this case, we've done our target based on the target budget provided and then considered the 15 percent overspend and the stretch that would be needed to achieve the upper band with that.

MR. DeROSE: And so just using the resource acquisition, the cumulative metres squared as an example, did you determine that the 1,110 million cubic metres target, based on the 125 band, is what you could achieve with your budget?

MS. LYNCH: Yes. We determined that this is the target that we could achieve with the budget.

MR. DeROSE: Okay. Then, can you explain why, in table 2 below, you say, if you used 150 percent upper band, you would have to reduce your target, but you've just told us that, with the budget you have, you can achieve 1,110 cubic metres? Why would that not be the 100 percent target regardless of whether it's 150 or 125?

MS. LYNCH: Because you need to take into consideration the budget that would be available to achieve the upper band.

MR. DeROSE: So you're deriving your 75 -- your 100 percent target based on what you believe you can achieve on the upper band with the budget, not on what you believe you can achieve at 100 percent with your actual budget without the DSM VA?

MS. LYNCH: So we're setting the -- just for clarity, we're setting the target based on the target budget and then the upper band based on the assumption that we have the DSM VA, so the 15 percent, available to achieve the upper band.

MR. DeROSE: Well, but if -- if you're basing the 100 percent target on your budget without the DSM VA, why is the target different in table 1 and table 2?

I don't think that is what you're doing.

[Witness panel confers]

MS. LYNCH: So again it comes back to -- if you look our target, and we have set that at the 1.1, and you look at what would be a reasonable stretch on that, considering the budget that would be available, it would not be reasonable to put a 50 percent addition with a 15 percent budget availability.

So what we're showing in this illustrative example is that in order to balance that, keeping in mind the budget available, we would need to adjust the target accordingly.

MR. DeROSE: Is this not another way of saying that you think that the Board's view of 150 percent was just too aggressive?

MS. LYNCH: What we've done is -- essentially. But what we've done is take into account the guidance that the Board has provided us with respect to the budget, and also with the expectation that we're earning more of the incentive for achievement above targets than we are for below target.

MR. DeROSE: Okay. And if the Board is of the view that you should first set the target at 100 percent of what you believe is an aggressive target at 100 percent with your budget, I take it that would be the 1,110 million cubic metres, correct?

MS. LYNCH: Correct.

MR. DeROSE: In which case -- if the Board doesn't agree with you that it should be 125 and should be 150, would it not be 1,110 million cubic metres, plus 50 percent? So it would be, I believe, right around 1,500 million rather than the 1,387, if we use the 100 percent target that you have.

MS. LYNCH: If you simply did 50 percent upper band, 150 percent, then based on this target, that would be correct.

However, what we're demonstrating here is that with the budget available, we would have had to re-set the balance between how much budget would be needed for a target versus how much of our budget we're using to achieve the upper band.

MR. DeROSE: Sorry, can you explain why you would -- can you explain that? I didn't understand what you meant by you'd have to reallocate the amount.

Shouldn't you be using your budget to achieve as much as possible, full stop?

MS. LYNCH: And that is what we're doing. However, it's got to look at what budget is available to achieve that.

So as we've laid out, what we have set our targets at is what we've proposed based on the target budget, assuming that we're having 125 as our upper band and 15 percent available to do that, and to achieve that amount.

If it's a 50 percent differential between target and upper band, being able to achieve that with 15 percent of our budget would not be a reasonable expectation.

MR. DeROSE: Well, okay, I can leave it. I think. That will just be an issue for argument.

Okay, thank you very much. Those are all of my questions.

MR. MILLAR: Thank you, Mr. DeRose. Mr. Shepherd?

# Questions by Mr. Shepherd:

MR. SHEPHERD: I am just going to follow up on that because I had a bunch of questions on that, too, most of which Vince has asked.

Do I understand correctly that the target budget and the target of a million 110 match; they're fine?

MS. LYNCH: Right.

MR. SHEPHERD: And so either the 25 percent increase to the upper band or the 15 percent DSM VA limit is wrong, because those two don't match. Is that right?

Sorry, the 50 percent increase doesn't match the 15 percent; that is your problem.

MS. LYNCH: Correct.

MR. SHEPHERD: There is nothing wrong with the target you're setting; the target you're setting is fine. It's that if you set that target under the Board's rules, you don't see how you're going to get to the upper band.

MS. LYNCH: Correct.

MR. SHEPHERD: Unless you get more money?

MS. LYNCH: Correct.

MR. SHEPHERD: Okay, thanks.

I want to start with a simple question. I will try to get more complicated later.

[Laughter]

MR. SHEPHERD: At tab 13, GEC number 1, you have a table here on the third page of this attachment 1, and it has a column "total gas savings".

And if I understand that right -- tell me whether this is correct. Total gas savings is 50 percent of the number on the left, plus the total of all of the ones above it.

MR. DIBAJI: Correct.

MR. SHEPHERD: So, for example, if you look at 2011, that 86633 is 50 percent of 139,027, plus the total of everything from 1997 to 2010, right?

MR. DIBAJI: One second.

[Witness panel confers]

MR. DIBAJI: I think you may be looking at the previous version. We have a corrected version to that table.

MR. SHEPHERD: All right.

MR. DIBAJI: So in 2011, it would be 881,718.

MR. SHEPHERD: Oh, all right. Why did they change?

MR. DIBAJI: After the fact, we found a cell reference error when they were creating the table in Excel.

MR. SHEPHERD: Oh, yes, okay, I see. In 1999, all right.

And my next question was going to be how 7.1 million equals 7.5 -- 7.1 billion equals 7.5 billion, and you're actually close; you're 7.4, right?

MR. DIBAJI: Yes, and the issue between the 7.4 and the 7.5 is that we had to adjust the 2011 savings to reflect a decision that was made in the 2012 deferral.

MR. SHEPHERD: I understand.

And the -- but my other question is, this assumes that all of the savings for every year is completely persistent to 2013, right?

MR. DIBAJI: That is correct. That is the assumption we made.

MR. SHEPHERD: That's not correct though, right?

MR. DIBAJI: We would have to conduct further analysis to identify the measure life for every single unit that was installed going back to 1997.

MR. SHEPHERD: To get the number. But you know that you had many measures in that period that had less than a 16 year life.

MR. DIBAJI: Correct.

MR. SHEPHERD: Okay. So you know that the number is actually lower than this?

MR. DIBAJI: This is just an estimate based on the best available information we have.

MR. SHEPHERD: All right. I told you it was an easy one.

Now I am at T6, BOMA 16 -- and by the way, I've been listening all day, but I've been doing other work at the same time. So if I missed a question and you've already answered it, just tell me and I will be embarrassed, but I will move on.

So this question deals with interactive effects, and my understanding of your answer is that you're assuming interactive effects are zero, right?

MS. LYNCH: Correct. The prescriptive assumptions don't take into account interactive effects.

MR. SHEPHERD: So that assumes they're zero?

MS. LYNCH: Right.

MR. SHEPHERD: That's not true, is it? They're not zero, in fact. They're going to be some negative amount, right?

If you're saving because of better windows, and you're saving because of a better furnace, you don't get the total of the two savings because they're countering each other out, right? They're offsetting each other, to a certain extent?

MS. LYNCH: That's correct.

MR. SHEPHERD: Okay. So you say here the best practice industry principle is that they -- that, on average, they get to zero. Right? That's not true, is it? What I'm going to ask you is: Where did you get the principle from? Give us a source.

[Witness panel confers]

MS. LYNCH: We'd have to follow up on that for you.

MR. SHEPHERD: Can I get an undertaking, please?

MR. MILLAR: JT2.18.

UNDERTAKING NO. JT2.18: To advise where the principle came from

MR. SHEPHERD: My next question is on T6, BOMA 21. And I think this also relates to another one -- I'm just trying to see which one -- which is SEC 17 under T6.

And what you're proposing is some sort of formal process where intervenor representatives interact with the rest of the consultative. Tell us more about that.

MS. LYNCH: So in the proposal we've laid out, we've suggested that the intervenor members are elected by the consultative and, therefore, would represent the consultative.

So there would be a process, whether it's similar to how we have consultative meetings, where those that are the elected members would be getting the input of those that are on the consultative to provide that input through both the audit and the evaluation advisory forum.

MR. SHEPHERD: What business is it of Union's what the intervenors do? If the intervenors work it out and they choose some particular representatives, why is it your business how they interact with each other?

MS. LYNCH: Simply a recommendation that we're making in our proposal at this point.

MR. SHEPHERD: Is there a problem now?

MS. LYNCH: What we're looking to confirm is that those that are elected represent the consultative. That's what we've proposed.

MR. SHEPHERD: But they're elected.

MS. LYNCH: (Witness nods head.)

MR. SHEPHERD: Doesn't the consultative then choose who they want to elect?

MS. LYNCH: Yes, they do.

MR. SHEPHERD: And so why -- why would you think that they would choose somebody that wouldn't represent them?

MS. LYNCH: Again, it's a proposal that we're putting forward at this time.

MR. SHEPHERD: All right. And then if you look at SEC 17, we asked the question -- we asked you to confirm that, if a person is elected to the EAF, their primary responsibility would be to act in the public interest.

I didn't see your answer to that. Is it?

MS. LYNCH: So our expectation is that those that are elected are representing best interests and that everyone is there to represent the -- either the intervenor group, independents, or the utilities.

MR. SHEPHERD: Yes, that's actually not correct, is it? Isn't it correct that everybody on the committee must act in the public interest? That's their job? That's what we do now.

MS. LYNCH: So in the technical evaluation committee, for example, you're -- everyone is acting in the best interests to establishing the best evaluation protocols.

MR. SHEPHERD: Exactly.

MS. LYNCH: Right.

MR. SHEPHERD: So that's acting in the public interest. Right?

MS. LYNCH: Right.

MR. SHEPHERD: It's not representing the adversarial position of one party or another, is it? This is not supposed to be an adversarial process; it's supposed to be a collaborative process. Right?

MS. LYNCH: Correct.

MR. SHEPHERD: Everybody is supposed to have the same goal.

MS. LYNCH: Yes.

MR. SHEPHERD: Okay. So I guess my concern was that you appear to think that there's sort of -- some sort of a representation going on in which, you know, a person is elected, and they -- they're fighting for the people that elected them. That's not correct. That would be actually wrong to do that.

And I just -- I'm trying to understand where you got that from, because that's not how the TEC works. Right? You know that?

MS. LYNCH: Yes. It's a consensus-based...

MR. SHEPHERD: All right. The next question I want to ask about is your proposal with respect to the EAF. You proposed a quorum in which one intervenor of the two has to be there, but both utilities have to be there. Why is that?

MS. LYNCH: Could you please provide the specific reference?

MR. SHEPHERD: I'm sorry, SEC 14, also in T6.

[Witness panel confers]

MS. LYNCH: Sorry, I was hoping to find a reference, but we've proposed that quorum include both utilities as we are ultimately accountable for the delivery of the programs. We are also both either project managing or working on the projects that are being completed, so it's important that both utility be there for meetings.

MR. SHEPHERD: I thought you proposed, actually, that Board -- that the Board Staff project manage the projects. Didn't you propose that?

MS. LYNCH: We've proposed that they would determine who would project manage the projects. So, currently, we alternate.

MR. SHEPHERD: I understand. And you've said you don't want to do that anymore. You want Board Staff to do it. Right?

MS. LYNCH: We've suggested that they would determine who project-manages, not that we wouldn't project-manage.

MR. SHEPHERD: Oh, all right. And so you both have to be there because you might be project-managing some projects. Right? And what else? Why else? Because the intervenor representatives are there because they and the people who elected them are paying all the bills.

So I'm asking: What's the reason why only one of them has to be there, but both of you have to be there?

MS. LYNCH: I think it's important that we're both there because we're accountable for delivering on the programs and the plans that we've put forward.

MR. SHEPHERD: Fine. The next one is T6, SEC 15. And I don't know whether you heard my discussion yesterday with Enbridge about this question of the confidentiality and/or transparency of these meetings.

And Enbridge's view is that all these meetings should be as open and transparent as possible. There should be -- basically, the default should be no confidentiality, with some exceptions, obviously.

You appear to be taking the other approach of saying everything should be behind closed doors unless an exception is made. Can you explain why that's appropriate?

MS. LYNCH: At this stage, it's a proposal that we've put forward for consideration by the Board in -- in their determination of how this is ultimately -- how they ultimately determine that we need to do evaluation.

MR. SHEPHERD: I understand. What's the basis of the proposal? Why do you think that's the right thing -- the right way to do it?

MS. LYNCH: Certainly to the extent that there is confidential information, that would be one component.

The forum is also consensus-based. So given that if we have consensus to move something forward, or we've essentially approved it, then we would want that to be the view that all parties would take when we'd put it forward to the Board.

So if we don't agree, or we can't reach consensus, then in the way we've proposed it, all parties would have the ability to submit their views on the issue for the Board's consideration.

MR. SHEPHERD: Your model is a sort of a settlement model, as if this is an ongoing negotiation. And the Enbridge model is that this is an open process that everybody can see what everybody has to say all the time.

And I'm trying to get at what the difference is, why you have a different view. I haven't heard it yet.

Why is it treated like a negotiation, like a settlement?

MS. LYNCH: I would say there is lots of gives and takes in how there is determination of which projects --ultimately what pieces move forward, that happen within the committee to achieve the consensus.

So we just recognize that it is important that if we are doing that, then it is important that everybody support the consensus positions.

MR. SHEPHERD: See, I guess I had understood that at least the EAF -- now, I understand that the audit committee may have a little bit of that. But I thought that at least the EAF was intended to go for the right answer, period. No negotiation, no taking positions, trying to find the right answer; isn't that right?

MS. LYNCH: That's definitely the goal.

MR. SHEPHERD: Next is T7, Staff 25. I thought you talked about this a bit, but there is one part of it I still don't understand, and that is the last paragraph on the first page.

I don't understand what you're saying. You're saying that free rider should be zero because of this, which is this paragraph and I don't understand what it means.

Can you help me?

MR. GOULDEN: I can try, Mr. Shepherd.

MR. SHEPHERD: Sure.

MR. GOULDEN: The only people that will be participating in both of those programs are those that are enrolled in the program, and are signed-up for the program.

So to the extent that there are actually results from their participation, there are no free riders.

MR. SHEPHERD: I don't understand why that is. Couldn't that be true of any program, that people who sign- up for the program are people who want to be in the program, and you don't know whether they're free riders or not. Sometimes you know, but mostly you don't.

Why couldn't somebody sign up for a Strategic Energy Management, because they have a plan to do this and you're going to give them money?

MR. GOULDEN: Our assumption is we are finding customers who would otherwise not participate in the program, because the program is a unique offering.

MR. SHEPHERD: But the big customers that you're targeting for SEM are exactly the people who might have a plan to manage their energy strategically, aren't they?

MR. GOULDEN: If they already have a plan to manage their energy strategically, then they wouldn't be eligible for the program.

MR. SHEPHERD: Well, they're not going to tell you, though, are they? If you're waiving a $100,000 cheque, they're going to say no, no, we don't have a plan. Never mind the thing on the corner of the desk, that's not a plan. Isn't that right?

MR. GOULDEN: That's theoretically an argument you can make, but it is not one we accept.

MR. SHEPHERD: The reason I am asking this is because it sounds like you're not planning to test, as you do with custom, for example, you have -- there's a net-to-gross study going on, right? And you're not planning to test whether there are free riders in this program, are you?

MR. GOULDEN: I think the test would be at the time we would enrol the customers in the program.

MR. SHEPHERD: All right, I see. Next is tab 8, SEC 25. We asked you to confirm that each custom project would have a net positive TRC, or you wouldn't do it. And your answer was no, you don't.

I'm not sure I understand why you would do a project if it didn't have a positive TRC.

MR. GOULDEN: Let me perhaps give an illustrative example. We're not required to screen individual projects, and we haven't screened them. And an example of how you might have a good project that might have a negative TRC would be something like a building automation system.

So as a result of discussions with the customer, the customer determines they want to install a building automation system. There are a lot of benefits associated with that building automation system. One of the most significant benefits is around the energy savings, but there is other benefits as well. You're saving time, so you're potentially saving staff time. You have potentially greater productivity in the plant as a result of building an automation system.

When we do the project, we would actually identify the costs associated with the building automation system project. We don't necessarily have the ability to peel-out those pieces of the building automation system project that are energy-related. So consequently, in that case, our costing might be conservative, because we would be unable to actually identify those pieces of the building automation system project that are directly related to energy, but it is still a legitimate energy saving project.

So that is an example of where it might be a negative TRC, but still, in our view, a good project.

MR. SHEPHERD: So if that were the case, then, you would presumably screen that project on an overall cost-effectiveness basis, not just TRC, but TRC plus other benefits to make sure that it was at least cost-effective on an overall basis, right?

MR. GOULDEN: No, we don't screen individual projects. We screen the portfolio.

MR. SHEPHERD: These are big projects, right? Typically they're big projects?

MR. GOULDEN: Yes.

MR. SHEPHERD: So your example is not a really good example, because in fact you wouldn't know whether the project was cost-effective or not.

Forget TRC; you just wouldn't know whether it is cost-effective.

[Witness panel confers]

MR. GOULDEN: We'd certainly use our judgment to determine whether it was a good project or not. So we wouldn't go ahead with the project if we didn't think it was a good project. That is why we have a relationship with our customers.

MR. SHEPHERD: Why wouldn't you do -- I mean, it takes an hour to do a spreadsheet to figure out whether it is cost-effective. Presumably, the client has the customer has the data. Why wouldn't you do that for every one of these projects? They're big enough; you’ve only have fifty or a hundred of them.

MR. GOULDEN: As I identified, you don't necessarily have the ability to peel-out the energy related costs associated with the project independently.

Consequently, in terms of assessing the project, you don't necessarily have energy-only data that you can use to do screening.

MR. SHEPHERD: But you said you would use your judgment to see whether there is other benefits, so that if it's negative TRC -- of course, you wouldn't even know whether it is negative TRC, right, because you never do that analysis?

MR. GOULDEN: We don't on an individual project basis. I was hoping to be helpful by providing an illustrative example.

MR. SHEPHERD: So then how do you use your judgment to see whether it's cost-effective on an overall basis, if in fact you don’t even do the calculation of TRC? I'm missing something here.

[Witness panel confers]

MR. GOULDEN: We determine if the project is beneficial to the customer, including having significant energy benefits.

MR. SHEPHERD: But I don't understand how you determine if it's beneficial, if you don't know -- if you can't balance the costs and the benefits.

I mean, if there is any benefit, it doesn't matter how much it costs? I just -- I am missing something here.

MR. GOULDEN: In the example I've given and in the situation where we have negative TRC projects, it is because we can't necessarily monetize all of the benefits aside from the energy benefits, which is what I was trying to identify.

MR. SHEPHERD: Right. Let me move on.

Tab 10, Staff 30. And what we're trying to understand here is you're going to spend -- what is it -- $6 million on a new tracking system which is likely going to be a capital asset. Right?

MR. GOULDEN: Give me a second, please. It may be a capital asset; it may not be, as we identified in our response to Tab 10, Board Staff 30.

MR. SHEPHERD: Well, but if it's going to be $6 million, then it's got to be capital. Right? Because you wouldn't pay for a hosting solution $6 million over two years. Right?

MR. GOULDEN: I can't say.

MR. SHEPHERD: Sorry? Where did you get the $6 million number?

MR. GOULDEN: The $6 million number was the number we identified as what we believe is the cost of the system.

MR. SHEPHERD: The cost, what? Sorry?

MR. GOULDEN: The cost of the system.

MR. SHEPHERD: To buy it?

MR. GOULDEN: Well, to buy it or to build it or to have it available, yes.

MR. SHEPHERD: Okay. So I don't understand. If you buy it off the shelf, it's a capital asset. If you build it, it's a capital asset. In either case, you're thinking it's going to cost you $6 million. I'm going to get to where you got that number in a second.

If you contract to a -- with a third party to pay them monthly to use their system, it's not $6 million, is it?

MR. GOULDEN: No, you're correct.

MR. SHEPHERD: Okay. But you're including it as if it's OM&A in your budget. Right?

MR. GOULDEN: We're including what we believe is the most conservative way -- financial case of dealing with the project, recognizing, when we determine whether it is a hosted solution or not or what portion is capital versus O&M, then we will sort that out.

MR. SHEPHERD: So if it's capital, then am I right in understanding that, although you would collect all the money from the ratepayers right away, quick, you would actually be depreciating it over time for financial purposes. Right?

MR. GOULDEN: Yes, I believe so.

MR. SHEPHERD: Okay. And so then you have extra money, right, because you're not actually -- your actual annual costs associated with that are much less than the $6 million. Right?

MR. GOULDEN: In that scenario, we might have extra money. But what we're proposing to do is be kept whole with regards to the best financial structure for the project.

MR. SHEPHERD: I understand. I'm not quarrelling with that. I'm just understanding the mechanics here.

So you get the $6 million from the ratepayers, and it's actually only costing you 100,000 -- $500,000 a year. So now you've got $5.5 million. What happens to that $5.5 million?

[Witness panel confers]

MR. GOULDEN: This is our best estimate of the cost of the program, Mr. Shepherd. To the extent that it costs more or costs less, is structured differently, then we would flow-through whatever the increment is or the decrement is to the DSM VA. So we're not proposing to benefit or lose by investing in this project.

MR. SHEPHERD: No, I understand. So you're -- so this difference, this hypothetical difference, $5.5 million, all right, that you've got now, this $5.5 million extra, that goes into the DSM VA as a credit to ratepayers. Right?

MR. GOULDEN: Yes.

MR. SHEPHERD: Okay. But the DSM VA is a pot that has things -- various things going in and out. Right? You can actually spend that money as long as you don't -- on something else. You're fine with spending it on something else. Right? You're allowed to do that. You're not ring-fencing this?

MR. GOULDEN: We haven't proposed to ring-fence it at this point, but certainly our intention is not to do that.

MR. SHEPHERD: Well, but the mechanism is straightforward. You have no choice. Right? You have no way of putting it in the DSM VA unless you ring-fence it, do you? It's the same with any other expense you have in your budget. If you spend less on that expense, you have that money available for other things. You can't choose to put it in the DSM VA, can you?

[Witness panel confers]

MS. LYNCH: To the extent that this amount is ring-fenced and we're clear about how we've built that in from a budget or planning perspective, then we can ring-fence that amount to be able to true-up what we would -- based on actual spending.

MR. SHEPHERD: So then you wouldn't be able to spend it on something else. In order to access the DSM VA to spend on something else, you'd have to meet your targets like any other year.

MS. LYNCH: Correct.

MR. SHEPHERD: That's fine. Okay. Thank you.

Next is tab 11, Staff 31. And you've talked a little bit today about coordination and integration with electricity distributors, and you said you've had discussions with 12 distributors. Do we have details on that?

MS. LYNCH: Those have been preliminary discussions that we've been having with a number of different LDCs, as we've indicated, as well as discussions that we're having through the working groups that we're participating in.

We are still at the early stages, though, of identifying which programs and opportunities we think will make the most sense.

MR. SHEPHERD: Does this include the working group, or is this -- the working group separate from this?

MS. LYNCH: We've spoken to LDCs outside of the working group.

MR. SHEPHERD: My question is: The 12, the number 12, does that include the working group?

MS. LYNCH: There would be some overlap, but there's 12 outside of the working group.

MR. SHEPHERD: Outside, okay. And do you have a person in your -- on your staff that is responsible for coordinating with electric utilities?

MS. LYNCH: Yes.

MR. SHEPHERD: And that person has to periodically report to you, presumably. Right?

MS. LYNCH: Yes.

MR. SHEPHERD: And when was the latest report you got from that person, most recent?

MS. LYNCH: We have biweekly discussions.

MR. SHEPHERD: Well, but presumably they also report to you in writing periodically?

MS. LYNCH: Primarily it's through discussions that we're having.

MR. SHEPHERD: So you don't have -- they don't make a presentation to a meeting with a PowerPoint or anything like that?

MS. LYNCH: No.

MR. SHEPHERD: That's never happened?

MS. LYNCH: We had presentations that we provided in this proceeding around discussions we had around building, the establishment of our plan.

MR. SHEPHERD: No. I'm talking about your coordination with electrics. Do you have any reports, memoranda, PowerPoints, anything like that, that would tell us what the status of your discussions are?

MS. LYNCH: I don't know that -- there isn't a summary that would provide all of that information.

MR. SHEPHERD: There's nothing --

MS. LYNCH: I have identified areas that we're speaking with these LDCs on specific -- like, specific program areas that we're focusing on at these discussions. So I do have...

MR. SHEPHERD: Okay. Could you provide whatever you have like that?

MS. LYNCH: Yes, we could provide that.

MR. MILLAR: JT2.19.

UNDERTAKING NO. JT2.19: To provide the specific program areas being focused on at the discussions

MR. SHEPHERD: Thank you.

MR. SMITH: Just to be clear, the undertaking was to provide whatever you have "like that," maybe we could get a clear sense --

MR. SHEPHERD: Yeah. That was a technical term. "Like that" is a technical term, meaning as you described, things that are about what you're talking to them about and what their responses are and how much take-up you have and how you're going to overcome the barriers, those sort of things. Okay?

MS. LYNCH: Hmm-hmm.

MR. SHEPHERD: Thanks.

You -- my next question is on T5, Staff 16. And I'm also going to refer to T5, Staff 16.

MR. GOULDEN: Sorry, you said T5, Staff 16, and what was the other one?

MR. SHEPHERD: Fifty. These are actually -- they have funny markings up at the top corner, and I don't know what they mean.

Oh, I think they're from 2014-0273. But they're also filed here in 0029, right?

MR. GOULDEN: Those are some of the attachments to 16.

MR. SHEPHERD: Oh, okay. I see, all right. Well, then that makes it easier.

So I am looking at attachment on page 4 and page 6, and what this appears to say is that for your large volume custom projects in 2013, about 90% of the savings had a less than one-year payback. Is that about right? Or will you accept that, subject to check?

MR. GOULDEN: Yes.

MR. SHEPHERD: That's on page 6, then on page 4 you have the C&I custom projects, and it looks like about 43 percent, 8.4 million m3 annual savings are one year or less, is that right? Will you accept that, subject to check?

MR. GOULDEN: Yes.

MR. SHEPHERD: Now, you don't -- I think I heard you talk about this earlier today. You don't screen projects for free ridership; like, you don't look and say, well, this is a payback of eight minutes, so obviously you’re a free rider and you don't need our money, do you?

MR. GOULDEN: We would eliminate projects, but where there is an obvious free rider.

MR. SHEPHERD: Okay. So I don't understand this. So you've got one here, for example, that has a payback -- you have a couple that have a payback of 0.1 years, a month.

How would those not be free riders? Do you have customers that wouldn't do one month payback projects?

MR. GOULDEN: They may not do those projects, that's correct.

MR. SHEPHERD: How do you factor-in payback period into screening out free riders?

MR. GOULDEN: We don't directly factor-in payback period in screening out free riders. It is one of many considerations.

MR. SHEPHERD: All right. My next question is tab 5, GEC 45, and I'm on page 4 of 8.

These incentive levels that you have listed for the various measures -- these incentive levels, many of them have ranges. So I wonder if you could undertake to provide us with a table that would tell us what the average actual incentive paid was for each of these, wherever there is a range, what the average actual was?

So, for example, you have air curtains in 2014 was 250 to 1500. But you actually know how many you incented and how much you paid.

MR. SMITH: I think this undertaking has already been given.

MR. SHEPHERD: Has it been?

MR. SMITH: Yes, JT2.16, I believe.

MR. SHEPHERD: Okay. Did that also include the assumed for 2016 to 2020, which also have ranges?

[Witness panel confers]

MS. BROOKS: I believe the undertaking reference was only in relation to the 2016-2020, the second table. I don't think it includes the first request from Mr. Shepherd.

MR. SHEPHERD: Okay. So can you add that to it?

MS. BROOKS: Yes.

MR. SHEPHERD: So actual average paid for 2012 to 2014, and budgeted average to be paid in 2016 to 2020.

MS. BROOKS: Yes.

MR. SHEPHERD: Okay? Awesome. Undertaking JT2.16.

UNDERTAKING NO. JT2.16 (SUPPLEMENTAL): to ADVISE the actual average paid for 2012 to 2014, and budgeted average to be paid in 2016 to 2020

MR. SHEPHERD: Next is T5, SEC 2, and we asked you in the interrogatory to please advise what steps, if any, Union took as a result of the stakeholder consultations on this plan to increase the offerings available for schools.

Now we know that Enbridge added some things after consulting. We didn't see an answer here as to what steps you took, and what additional offerings you added.

MR. GOULDEN: Topic five, SEC number 2, bottom of page 2, Mr. Shepherd?

MR. SHEPHERD: Yes.

MR. GOULDEN: In response to feedback received, Union adjusted the eligibility criteria for RunSmart participants to a minimum consumption of 50,000 cubic meters per year, and increased the general service incentive to 20 cents per --

MR. SHEPHERD: Okay, so I understand you're saying the 50,000 actually allows more schools to participate, although most of them still can't, right?

MR. GOULDEN: It allows more schools to participate, that's correct.

MR. SHEPHERD: It allows 400 to; you have 400 that qualify out of about 2,000?

MR. GOULDEN: That’s right.

MR. SHEPHERD: And moving from twenty cents to ten cents, how does that help schools participate?

MR. GOULDEN: It went from ten cents to twenty cents.

MR. SHEPHERD: Yes. So how does that help them to participate?

MR. GOULDEN: Well, for those people that are eligible, they can get a bigger incentive.

MR. SHEPHERD: So it doesn't change who can participate; it only changes how much you get if you do participate, right?

MR. GOULDEN: Anyone who is doing a custom project, if they're a general service customer, can receive twenty cents instead of ten cents.

MR. SHEPHERD: That's right. So you haven't increased the offerings available for schools. You simply said that if you participate in this program, we will give you more money, right?

MR. GOULDEN: Anyone can par test pat including any school, that's correct.

MR. SHEPHERD: All right. Well, any school that is over 50,000.

MR. GOULDEN: No. There is no threshold, Mr. Shepherd, with regards to the twenty cents.

MR. SHEPHERD: Do you do a lot of projects that have less than 50,000 --

MR. GOULDEN: Excuse me, the threshold is with regards to RunSmart eligibility.

MR. SHEPHERD: I understand.

MR. GOULDEN: There is no threshold with regards to eligibility for twenty cents per m3 for a general service custom project.

MR. SHEPHERD: I understand that. Do you do a lot of projects for customers that are below 50,000?

MR. GOULDEN: We don't do a lot of projects, but we do do some projects.

MR. SHEPHERD: Okay. In T5, SEC 4, we asked you about the problem you have that more than half of your CI customers are simply unaware of your offerings. It's a problem, right?

MS. BROOKS: Well, awareness is a challenge that Union continues to try and address through our annual marketing plans.

MR. SHEPHERD: Okay. So we asked you to provide all internal or external studies, reports, blah, blah, blah, and you gave us four things that are attached to another interrogatory, actually.

Is that all you have? Are those all of the analyses that would be helpful to us in terms of how you address this problem?

[Witness panel confers]

MR. SHEPHERD: Let me explain where I am coming from with this, and maybe this will help you.

I would have thought this is a problem you've identified. You know it is a problem, and that you would have assigned somebody the responsibility to go look at why is this happening, how can we fix it, what are our choices. What are other people doing. It is not a problem that you have.

And that they would then produce some sort of report, which you would analyze and figure out what to do. Do you have something like that?

MS. BROOKS: So we have -- as I mentioned before, we have program design areas, and part of their accountability would be to address awareness of their customers, to increase awareness and participation of the program.

MR. SHEPHERD: Okay, all right. But the only things you have are -- you're Mr. Ali; is that right?

MR. DIBAJI: Mr. Dibaji.

MR. SHEPHERD: Sorry, okay, I was mistaken. You have a person who does your research projects, right? And we have several of their reports, which I am going to get to in a second.

MS. BROOKS: Yes. We have a research department, yes.

MR. SHEPHERD: Okay. Let me go to SEC 35, also in tab 5. And I just want to clarify one thing in this. We were asking about participation by school boards in your programs, and in custom, you have a few each year, but you have also, in prescriptive, you have, in table 2, a number of school boards. And they're quite big numbers.

Now, my question is: Are those school boards, or are those schools? Because there aren't that many school boards in the province; there's only 72, and in your area, there's only about 35.

MS. LYNCH: They would be schools within the school boards.

MR. SHEPHERD: Okay. So that's really schools; okay. So, for example, this 36 might -- there might be 10 in one school board.

[Witness panel confers]

MS. LYNCH: We could confirm that.

MR. SHEPHERD: Okay. Thank you. Do you want to do that?

MR. MILLAR: JT2.20.

UNDERTAKING NO. JT2.20: To confirm number of schools in school boardS

MR. MILLAR: Mr. Shepherd, how much longer to do you expect to be?

MR. SHEPHERD: Twenty minutes, maybe.

MR. MILLAR: Okay. I think we're going to have to take a short break. The court reporter and everyone probably could do with just a five- or a ten-minute break.

MR. SHEPHERD: Just while I'm having so much fun?

MR. MILLAR: It will give you a chance to refocus and maybe get it down to 19 minutes. Let's come back at 5:10.

MR. SHEPHERD: Okay.

### --- Recess taken at 5:03 p.m.

### --- Upon resuming at 5:10 p.m.

MR. MILLAR: We are back on the air. Let's continue. Just give us a moment, Jay. I guess we're locked out of the system.

Here we go. Okay, go ahead.

MR. SHEPHERD: I have five or six quick ones, and then and one area that I have several questions on.

The first is T3, BOMA 7, and if I understand your evidence, is that even participating customers will pay more in rates to pay for DSM programs than they will receive in benefits.

Is that right -- in residential at least?

MR. TETREAULT: Yes, that's correct, Mr. Shepherd.

MR. SHEPHERD: I don't understand how that could happen. I said that to someone who has been doing DSM for twenty years, and they said that's not possible; someone has to benefit.

So I don't understand why you would even do these programs if everybody is getting a bill increase, if nobody is benefitting. Why would you do it?

I'm assuming there is an error in here somewhere.

MS. LYNCH: A couple of items. It's one year -- based on one year of savings, not the lifetime of savings. As well, it doesn't take into account incentives that would be paid to customers for participating, as well as any electricity and water savings that they would also receive as part of the program.

MR. SHEPHERD: Okay. But it's one year for savings. But it's also one year for rate increase, right? So they're going to continue to pay the higher rates forever, right? You're not going to stop the program.

MS. LYNCH: The programs may evolve, so there may be other programs they would participate in.

MR. SHEPHERD: You're not proposing they have an increase this year, and you give it back to them later? They're going to have higher rates for DSM programs.

MS. LYNCH: They would -- which would reflect the budget that is approved in that year.

MR. SHEPHERD: All right. It's just, I -- so if the Union south customer, an average residential customer, has a 1.92 increase in rates, you're saying that the average participant has a $1.23 benefit from participating.

Is that right -- because the net is 69?

MR. TETREAULT: That's correct, Mr. Shepherd.

MR. SHEPHERD: I've always understood DSM programs to be that the participants are better off in the end than they would have been, and the non-participants suffer because they didn't participate; they should have participated.

You seem to be saying everybody's worse off. I don't understand that.

MS. LYNCH: No, I think this is a reflection of what you are seeing in the bill impacts.

Now, there's -- we've netted off free riders from a savings perspective, not from a cost perspective, but -- so there's that.

But also a participant would have received the incentives for participating.

MR. SHEPHERD: Okay.

MS. LYNCH: So that is another benefit that is not reflected here.

MR. SHEPHERD: All right. Although for most of these, it would simply be in SK, right? The biggest number of M1 customers is going to be in ESK?

[Witness panel confers]

MS. LYNCH: So the residential M1 customer here would have the ability to participate in the home reno rebate program, the behavioural program, as well as ESK program, if they haven't participated.

MR. SHEPHERD: I understand that, except that this is an average impact on those that participate. And so those that participate -- we know what your numbers are for ESKs and behavioural, and home reno.

And ESK is way bigger than the other two, right?

MR. DIBAJI: No, actually in behavioural, there is 300,000 customers participating each year.

MR. SHEPHERD: So do we have this calculation, the 69 cents?

MR. TETREAULT: I'm not sure what you mean, Mr. Shepherd.

MR. SHEPHERD: You said the average rate M1 residential customer will have a net bill increase of 61 cents per month -- and that is for participants, rights?

MR. TETREAULT: That's correct.

MR. SHEPHERD: Do we have that calculation? Do we see where you got that number?

MR. TETREAULT: I think it is all in this -- it’s all on this schedule. We're simply comparing the -- I'm sorry, Mr. Shepherd. I thought we were -- I thought we had referenced in BOMA 7 and evidence.

We need to look at Exhibit A, tab 3, appendix E, schedule 4.

MR. SHEPHERD: Yes, you referenced it. The full calculation is there, the benefits from the individual programs, how much they benefitted from behavioural, how much they benefitted from ESCos, how much they benefitted from home reno, right? It is all there, broken down?

MR. DIBAJI: The savings per participant would be a combination of the information we provided in appendix A. So you would have the total savings per offering, the number of participants per offering.

So it would be a function of that math.

MR. SHEPHERD: Okay, thank you. Is the reason why this is negative because you have such a high cost per CCM for your behavioural?

MS. LYNCH: Certainly that has a significant impact, given that it's going to 300,000 customers. So you're assuming 300,000 are participating and comparing the savings to that.

MR. SHEPHERD: And they are, in effect, paying in rates for those savings, three times what it costs them to buy the gas delivered, right?

I think it’s 88 cents or something. Isn't it 88 cents per cubic metre?

MR. TETREAULT: I'm not sure what you're referring to, Mr. Shepherd, 88 cents?

MR. SHEPHERD: I thought your cost per CCM was 88 cents for behavioural. It's not cost-effective, right?

MR. TETREAULT: I don't know.

[Witness panel confers]

MR. SHEPHERD: I'm going to move on, because I don't have that much time.

Let me move to T2, Staff 5, and I just want to confirm something. The way the scorecard currently works, and the way you are proposing to make it work, is that if you over-perform in one metric within a scorecard, that can save you from bad performance on the other metric or metrics, right?

So I will give you an example. On page 4 of this, you have -- you have the market transformation scorecard, you have prototype homes built. The weight is 40 percent, but because you're at 266, you're already getting your target incentive just by that 40 percent weight, right?

MR. DIBAJI: Which page are you referencing to?

MR. SHEPHERD: Page 4. T2, Staff 5, page 4.

[Witness panel confers]

MS. LYNCH: So in the scorecard structure here, you can over-achieve on a metric, or you can under-achieve on a metric, which would have a negative impact.

MR. SHEPHERD: No, understood. And you are proposing to continue this structure?

MS. LYNCH: Yes.

MR. SHEPHERD: Thank you. Next is T2, LPMA 14; do you have that?

MR. DIBAJI: Yes.

MS. LYNCH: Yes.

MR. SHEPHERD: The question is about the cost-efficiency incentive, and you were asked: Well, what happens to the carry-forward amount?

So let me first understand what -- the way you understand the framework and what you proposed is that, if you reach 100 percent of your incentive, then you have met the test for the cost-efficiency incentive. Right?

MS. LYNCH: We achieve 100 percent of our target.

MR. SHEPHERD: Microphone.

MS. LYNCH: If we achieve 100 percent of our target.

MR. SHEPHERD: Well, okay, but is it target on each individual thing, or is it your overall target? Is it each individual item on a scorecard? If you meet that -- if you meet one thing, then you look at what was the budget for that; did you come in under-budget? Because I would've thought that most of the things on your scorecard don't have an earmarked budget.

[Witness panel confers]

MS. LYNCH: We would have a budget specific to each metric.

MR. SHEPHERD: Really? Is that in the evidence here somewhere?

MR. DIBAJI: Yes. In appendix A, you'll see the promotion incentive budget per offering and then the total budget per program within the various tables in appendix A.

MR. SHEPHERD: So it's broken down for each metric? So, for example if you have --

MR. DIBAJI: You would have to combine various aspects of those budget items to get to the budget per metric. For example, home reno rebate is a metric on our resource acquisition scorecard, so you could infer what the budget is for home reno rebates specifically.

MR. SHEPHERD: Well, but home reno rebate isn't one metric; isn't it more than one metric? Maybe I'm...

MR. DIBAJI: It's one metric on our resource acquisition scorecard. And there are the gas savings that are -- that can also be used against the m3 metric within the same scorecard.

MR. SHEPHERD: If you have, for example -- I actually don't have in front of me your proposed scorecards, but you have a deep savings residential metric, right, on your proposed scorecard?

MS. LYNCH: Correct. The home reno rebate.

MR. SHEPHERD: Okay. So that's not a separate scorecard. That's an item, right, on one -- on a scorecard that has other things on it.

MS. LYNCH: There's two metrics on that scorecard.

MR. SHEPHERD: Okay. And so you have a separate budget for the deep savings and for the CCM?

MS. LYNCH: We have a separate budget for the scorecard.

MR. SHEPHERD: I'm talking about budget now, because the cost-effectiveness test assumes that you come in under budget, so you have to know what your budget was for a metric if you're saying you're going to get to keep the excess for that metric, wouldn't you?

MR. DIBAJI: We would have a budget for home reno rebate, yes.

MR. SHEPHERD: But that would include both the CCM and the --

MR. DIBAJI: Correct.

MR. SHEPHERD: So that's not for the metric, then. It's for the scorecard.

MR. DIBAJI: That budget would be applied to whichever metrics that program refers to, yes.

MR. SHEPHERD: So then if you're -- if you came in under budget on home reno rebate, you would have to meet both metrics on that scorecard in order to keep the money, right, because the CCM isn't broken out separately?

MR. DIBAJI: Correct.

MR. SHEPHERD: So you'd have to meet both metrics?

[Witness panel confers]

MR. DIBAJI: Yeah. I think the issue comes down to how we'd actually get to the 100 percent achievement on that scorecard regardless of the metrics within that.

MR. SHEPHERD: So then what Tracy said was not correct. It wasn't per metric; it's per scorecard?

MS. LYNCH: Right. We have a breakdown of our budget that we could apply to each metric.

MR. SHEPHERD: In the evidence?

MS. LYNCH: But looking at -- looking at the mechanism here, per scorecard would be an easier application, yes, of how we would account for the cost-efficiency incentive.

MR. SHEPHERD: So you have a scorecard for residential resource acquisition?

MS. LYNCH: We have a scorecard for resource acquisition.

MR. SHEPHERD: Exactly. So you'd have to meet all the metrics on that scorecard, or you'd have to get to 100 percent or on that scorecard, and then anything in the budget for that whole scorecard that you hadn't spent, you got to carry over. Is that right?

MS. LYNCH: That's under our understanding based on --

MR. SHEPHERD: Well, I'm asking what you proposed in your application.

[Witness panel confers]

MS. LYNCH: Based on our understanding of what was outlined by the Board, we had proposed that we would be able to utilize the cost-efficiency incentive if we achieved 100 percent of our target.

MR. SHEPHERD: On a scorecard?

MS. LYNCH: The easiest application would likely be on a scorecard basis.

MR. SHEPHERD: Well, see, I thought it was overall. I thought it was if you had 100 percent of your overall target, that is, all the scorecards, your net was your target or better incentive, then whatever budget you had left over, you got to keep in total. Now, you -- that's not what you understand?

[Witness panel confers]

MR. SHEPHERD: Now we lost somebody else.

[Witness panel confers]

MR. DIBAJI: Yeah, Mr. Shepherd, I don't think we have a specific proposal around that. I think both options are options that we could potentially go forward with.

MR. SHEPHERD: Fine. I wonder if you could, then, undertake to provide to us with what is your proposal for the specific mechanics of the cost-effectiveness carryover.

MS. LYNCH: Yes, we can provide that.

MR. SHEPHERD: thank you

MR. MILLAR: JT2.21.

UNDERTAKING NO. JT2.21: UNION To provide the proposal for the specific mechanics of the cost-effectiveness carryover

MR. SHEPHERD: And now my last set of questions -- and I'm sorry. That took a little longer than I thought, but I'll try to make this quick -- is on T2, GEC 27, attachment 2, which I'm sure you realize I'd ask questions about since it's near and dear to my heart, and although you're not Mr. Ali, I will ask whoever wants to answer it.

The -- I'm starting on page 3 of 29. I have several questions on this, but...

The research you did, it says here you had multiple interviews across several premises. I assume, with respect to school boards, you only talked to the school board, not to the individual schools. Right?

MR. DIBAJI: Can you provide the attachment reference you're referring to?

MR. SHEPHERD: Sorry, attachment 2.

MR. DIBAJI: Attachment 2?

MR. SHEPHERD: T2, GEC 27, attachment 2. I'm on page 3.

[Witness panel confers]

MR. SHEPHERD: It is on the screen. Is there something I can sort of explain to help?

MS. BROOKS: We're just trying to find the attachment. Okay, we've got it, thank you.

MR. SHEPHERD: So the first question is multiple interviews across several premises. I assume that with respect to a school board, you only talked to the central school board. You didn't try to talk to the individual schools, right?

MS. BROOKS: That would be our understanding.

MR. SHEPHERD: Okay. Do you know how many of the people surveyed had ten plus premises, five to nine premises, and four or fewer premises? Can you break that down for me?

MS. BROOKS: We would need to confirm that.

MR. SHEPHERD: All right. What I am going to do is go through the questions quickly, and see how many you can answer right away.

And then I will simply give them to you in writing -- the ones that you couldn't right away, I will give them to you in writing tomorrow morning and you can respond by way of undertaking, if that is all right. Because I have a dozen questions here, and some will be detailed like that. Is that all right?

MR. SMITH: Certainly, if you want to expedite the process by going through the questions that you have now.

MR. SHEPHERD: Yes.

MR. SMITH: And what we can answer now, we will answer now. I am not going to give an omnibus undertaking to answer everything that you put in a letter, but we will respond appropriately about what we will respond to and, of course, if it is appropriate to respond --

MR. SHEPHERD: I will tell you all of my questions so you will know.

MR. SMITH: Yes, okay, all right.

MR. SHEPHERD: All right. Page 4; this universe of education 3658, can you confirm that more than half of that is elementary and secondary schools? Am I in the right ballpark?

MS. LYNCH: I think at this point, given the detailed nature, it would be best to take it -- to take it as an undertaking.

MR. SHEPHERD: You done even know that? You don't even know how many schools you have? They’re your biggest single purpose customer group; do you not know?

MS. BROOKS: We would want to confirm, with those who conducted the research, any of the questions that you are asking.

MR. SHEPHERD: This is about what the universe is. So the universe is educational institutions, right? Elementary and secondary schools; do you know how many you have? There is a government list.

Okay, never mind. I will put that in my written questions.

I am also going to want to know how many of the interviews were with school boards, and how many of them were with others.

In fact, the easiest way to do this is on page 5. There is a list of the categories, so I am going to ask you to break down how many of each category did you include in the survey for education.

I am assuming can't answer that off the top of your head. But if you feel you can, that's great.

You would agree, won't you, that school boards, elementary and secondary schools, have quite different gas usage characteristics than, for example, language schools, or computer training schools? Do you agree with that -- or child daycare services?

[Witness panel confers]

MS. LYNCH: I don't have the specifics in front of me.

MR. SHEPHERD: On page 11, you say that a higher percentage of municipal and hospital customers have DSM plans in the next two years, and that is relative to educational institutions.

I didn't understand that, because every school I know has a DSM plan; they're required to by the government. So I don't understand how that's the case, and maybe there is something unique going on there that I don't understand.

MS. LYNCH: That would be based on the responses provided to the survey.

MR. SHEPHERD: All right. On page 13, you talk about funding being the number one barrier to institutional energy conservation.

Is that overall access to money, or prioritization of spending between various priorities? Do you know? They're different problems, right? One is you're broke; the other is you have money, but you have to prioritize what you spend it on.

MS. LYNCH: We'd have to confirm the specific question asked.

MR. SHEPHERD: Okay. In the education sector, you say that 21 percent of education customers have a single person that decides energy management decisions. That's not consistent with my knowledge, so I don't understand that. Can you help me understand?

MR. SMITH: And could you just give us the page reference?

MR. SHEPHERD: Sorry, page 17.

[Witness panel confers]

MR. SHEPHERD: School boards never have one person decide anything, ever. They're sort of like utilities that way, or regulators.

[Witness panel confers]

MR. SHEPHERD: You don't know the answer?

MS. LYNCH: This is based on the results to the survey that was completed.

MR. SHEPHERD: All right. On page 27 -- see how quickly I am going through -- there is the total indoor space for each category of customer. Are these by entity, or by building?

For example, you have 12 percent of your education customers surveyed have 100,000 or over. But by building, it is going to be very different than by entity. School boards have millions of square feet.

MS. LYNCH: Again, I would want to confirm that in the context of the work that was done.

MR. SHEPHERD: All right. And then I'm looking now at attachment 6 to that same interrogatory response, and if you see on page 2, you have past DSM participation by segment and past DSM participation in Union Gas DSM programs.

I didn't understand how the total past activities can be less than participation in Union programs. So education, for example; 28 percent have done something in DSM and 30 percent have done something with Union Gas.

I don't understand how that is possible.

[Witness panel confers]

MR. SHEPHERD: Do you want to undertake.

MS. LYNCH: We would want to take a look at the calculations in here.

MR. SHEPHERD: Right. So I've given you all the questions that I'm going to ask. I will put them in a letter appropriately worded so that they're understandable, and I'd appreciate it if I could get an undertaking for that.

MR. SMITH: Thank you.

MR. MILLAR: We'll mark that as JT2.22.

UNDERTAKING NO. JT2.22: To provide answers to the questions in Mr. Shepherd's letter

MR. SHEPHERD: And those are all of my questions. Thank you.

MR. MILLAR: Thank you, Mr. Shepherd.

# Questions by Mr. Millar:

MR. MILLAR: You'll be happy hear that we have very little left, so we'll just be a few minutes. These are questions from Staff.

Could I ask you to turn -- it's an ominous beginning, but tab 1, Staff 1.

[Laughter]

MR. MILLAR: I promise we won't go through them like that. Just a quick question about on-bill financing possibilities. You'll see in question (d) we asked you if you had considered doing a pilot program with respect to on-bill financing, and if you turn to the answer on page 2, you say no -- or not that you didn't consider it, but that you're not proposing it.

In the last sentence, you say:

"A pilot program would require the same amount of effort and expense as an on-bill financing program."

Do you know what that number is? Do you know how much -- do you have a guesstimate as to what that was going to cost?

MS. LYNCH: I don't have a full estimate for the system integration components.

In the Accenture report that we provided as part of this undertaking, they did indicate to us that we would expect a cost in the range of $400,000 a year.

MR. MILLAR: Okay. And according to this answer, that -- the answer is the same whether it's a full on-bill financing program or a pilot. It would be the same number?

MS. LYNCH: Correct.

MR. MILLAR: Okay. All right. Next, could we turn to tab 3, Staff 11? This should be another quick one.

Again, that's tab 3, Board Staff question 11.

MS. LYNCH: Yes, I have that.

MR. MILLAR: Okay. It's not on the -- I don't have it on my screen, but I do have a copy here.

So we had some preamble and questions about $1.4 million of your budget; and, in particular, of your 2015 budget, it includes 1.4 million that you propose to use to begin to address the guiding principles and key priorities outlined in the DSM framework. You're familiar with that?

MS. LYNCH: Yes.

MR. MILLAR: And I can't remember -- I can't put my finger on it right now, but my understanding is that, as of June or so, only a very small proportion of that had been spent.

And my question is: To the extent that you aren't able to spend the entire $1.4 million in 2015, what happens to that money? Is that rolled over, or is it returned to ratepayers through the DSM VA? Or do you know the answer to that?

MS. LYNCH: The funding that we had included in our incremental budget was related to the achievable potential study, the DSM infrastructure planning, as well as the new IT system.

So those are amounts that we will need at some point to complete that work. To the extent that some of it will be paid in 2015 or be required in 2016, we would need to look at that depending on some of the timing or how ultimately the achievable potential study is funded.

MR. MILLAR: So just to be clear, if you don't finish all that work in 2015 and you haven't spent the entire $1.4 million budget, is it your proposal to roll that into 2016, then, to spend it in 2016, or 2017 for that matter, but to retain that portion of the budget and spend it later?

[Witness panel confers]

MS. LYNCH: To the extent that the costs come in less this year, we would need funding for them for next year.

MR. MILLAR: Okay. So you would propose to keep that money and spend it in future years?

MS. LYNCH: Yes. For the purposes that we've outlined.

MR. MILLAR: Understood. Okay. Thank you.

Could I ask you to turn to tab 5, Staff 16? And I think this touches a little bit on some questions Mr. Shepherd had for you. It's about your custom offerings.

And you will see, at part (c) of Staff's questions, we asked if you considered payback period or return on investment in designing the eligibility criteria.

And your response at the bottom is no. Can you -- what we were trying to get at is how you screen free riders out of these -- out of these programs. And if you don't do either of these two things, could you -- could you tell me what you do do to screen out free riders from these programs?

[Witness panel confers]

MR. MILLAR: If this is something you would prefer to answer by way of undertaking, that's okay. We asked a similar question to Enbridge, and they are going to get back to us with an undertaking response. I only stated that because I know you've got a train to catch. I don't want to keep you unduly.

[Witness panel confers]

MS. LYNCH: We would provide that by undertaking. Thank you.

MR. MILLAR: Okay. So that will be JT2.23.

UNDERTAKING NO. JT2.23: UNION To advise HOW they screen out free riders from the programs

MR. MILLAR: And moving on to the final question, tab 5, Staff 19, this was a question with respect to your large volume program. And you will see it was only one question. It was: Has Union considered requiring large volume customers to track energy performance and show improvement in the energy efficiency of their operations in order to be eligible for the program?

And your -- your laconic response was no.

So my follow-up to that is: Why not? But perhaps more specifically, how is it that you propose to ensure that you're achieving results from this program? Is there another way that you'll measure whether or not this has given you the results that you were hoping to achieve?

[Witness panel confers]

MR. GOULDEN: Maybe let me start with the end and work backwards.

MR. MILLAR: Sure.

MR. GOULDEN: We don't have any results that we expect to achieve except to have high customer participation, so we haven't identified in our -- for example, our resource acquisition scorecard that there is any specific volumes that we can credit as a result of participating in the program.

And the reason for that is because we're not actively participating with customers around specific energy consumption projects.

So with regards to the -- our proposal for the large volume customers, because of the type of participation they have and the fact that tracking their energy savings is quite onerous with regards to the administrative requirements associated with that, especially if, for example, there was an expectation that they would go through the verification process, It's a very large administrative burden for those customers, and it's not our expectation that we would want those customers -- that we could expect those customers to do that.

MR. MILLAR: Okay. I've got you on that part. But did I hear you just say you're not expecting there to be any volume savings resulting from this program, or is it just that you're not including any savings in your -- in your targets?

MR. GOULDEN: It's the latter. We're not including any in our targets, and we're not in a position to measure those without going through the process I identified.

MR. MILLAR: And is the reason you're not predicting any volume savings because it's too difficult to measure? Is that the issue, or is it that it's more of a high-level program, and you hope, over time, that it will encourage people to have savings?

MR. GOULDEN: It's a high-level program, so the nature of the program is to encourage customers to conserve energy as opposed to actively help them manage specific projects.

MR. MILLAR: I see. So you are expecting there probably would be some savings. This is not wasted money by any stretch, at least according to your proposal. It's just that it's not something you'll be able to specifically tie to specific savings?

MR. GOULDEN: Yes, that's correct.

MR. MILLAR: Okay. Thank you very much. Those are my questions. I think we are done here today. It's been a very long day, so thank you very much to the panel and parties and, of course, the court reporter. So we're adjourned.

### --- Whereupon the conference adjourned at 5:55 p.m.