

ONTARIO ENERGY BOARD

**FILE NO. EB-2024-0198 Enbridge Gas Inc. (DSM)**

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EB-2024-0198

THE ONTARIO ENERGY BOARD

Enbridge Gas Inc.

Application for Multi-Year Natural Gas Demand Side

Management Plan (2026-2030)

Oral Hearing held virtually

On Thursday, July 24, 2025, commencing at 9:34 a.m.

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VOLUME 1

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LISA DeMARCO Minogi and Three Fires Group

JUDY SIMON LIEN and Vulnerable Energy

SHELLY GRICE Consumers Coalition (VECC)

JAY SHEPHERD School Energy Coalition (SEC)

ALSO PRESENT:

TOM LADANYI Energy Probe and Coalition of Concerned Manufacturers and Businesses of Canada

DENNIS O’LEARY Enbridge Gas Inc.

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BONNIE ADAMS

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Thursday, July 24, 2025

### --- On commencing at 9:34 a.m.

L. MURRAY: Good morning, everyone. I think we will get started now. This is a technical conference for OEB file number EB-2024-0198, which is Enbridge's demand side management application.

My name is Lawren Murray, and I am counsel to OEB Staff. This technical conference here today is to address Enbridge's proposal to roll over the residential portion of its DSM plan program until the end of December 2026, and questions today should be focused on that request.

Before my introductory remarks and appearances, I am going to hand things over to Lillian Ing, who -- beginning with the land acknowledgement.

# LAND ACKNOWLEDGEMENT

L. ING: I wish to acknowledge this land on which the Ontario Energy Board operates. For thousands of years, it has been the traditional land of the Mississaugas of the Credit, the Anishinaabeg, the Chippewa, the Haudenosaunee, and the Wendat Peoples. It is covered by treaties made with the Crown, in the spirit of peace, friendship and respect. Today this land is still home to many Indigenous peoples from across Turtle Island.

The OEB is committed to building relationships with Indigenous peoples and communities based on mutual respect and shared values. Thank you.

L. MURRAY: Thank you, Ms. Ing.

Given that this is a virtual technical conference, since we're not in person, I wanted to remind people of a few things before we get going.

# PROCEDURAL MATTERS

First, we can't talk over each other. You must speak clearly and into the microphone.

Second, I ask that intervenors when they're not asking questions to turn off their video cameras so that the focus can be on the person asking the questions and the Enbridge witness panel.

Third, I would remind people that while the chat function is available on Zoom, nothing said in that chat function will be recorded or appear in the transcript for this technical conference.

And, fourth, I wanted to remind parties that today's technical conference is being live streamed.

Now, with here -- with me here today from OEB Staff are Michael Bell, the case manager, along with Josh Wasylyk and Taiwo Ishmail.

Now, let's get started with appearances and proceed in the order of the schedule. I'll start with Environmental Defence.

# APPEARANCES

K. ELSON: Good morning. Kent Elson for Environmental Defence and the Green Energy Coalition.

L. MURRAY: Next on the list, I have Pollution Probe.

M. BROPHY: Good morning. Michael Brophy on behalf of Pollution Probe.

L. MURRAY: Next on the list, I have CCC.

J. GIRVAN: Julie Girvan on behalf of the Consumers Council of Canada.

L. MURRAY: And I understand that next on the list is the School Energy Coalition, or SCC, but I understand that will be Mr. Jay Shepherd, but he may not be here right now.

So I will move on to Minogi and the Three Fires Group.

L. DeMARCO: Good morning. Lisa DeMarco calling in from the traditional territory of the Mississaugas of the Credit on a spit of land called Tyendinaga or the caring place, here on behalf of Minogi and Three Fires Group.

L. MURRAY: And the last one I have on my list is LIEN and VECC.

J. SIMON: So Judy Simon on behalf of LIEN, and with me is Shelley Grice.

Shelley? You're on mute, Shelley.

S. GRICE: Sorry. Good morning. Shelley Grice, consultant for the Vulnerable Energy Consumers Coalition.

L. MURRAY: Thank you. In terms of intervenors, is there -- did I miss anyone in terms of the people intending to ask questions today?

J. SIMON: Lawren, I'll be asking questions on behalf of LIEN and VECC. We have joint questions.

L. MURRAY: Thank you.

Any other intervenors intending to ask questions today? Just we don't have any on our list so if we -- if there is a late changing schedule and someone is intending to ask questions, it's probably better we figure that out now than at 5:15 this afternoon. So I'm just giving this opportunity if anyone else -- I see some other sort of names on the thing, but I think they are just here to sort of observe. But if anyone else is intending to ask questions, if they -- let that be known now. No. Oh --

T. LADANYI: Maybe I can identify myself. Tom Ladanyi, I'm representing Energy Probe and Coalition of Concerned Manufacturers and Businesses of Canada. We have no prepared questions; however, if during the technical conference some new information is released, we may ask permission to ask clarification of it later in the day.

L. MURRAY: Thank you, Mr. Ladanyi, for that clarification.

Perhaps with that, I will -- having completed appearances for the intervenors, I will turn things over to Mr. O'Leary to introduce representatives of Enbridge and his client's witness panel. Dennis, you're on mute.

D. O'LEARY: Hello, is that working now?

L. MURRAY: It is.

D. O'LEARY: Okay, great. I'll start again. My name is Dennis O'Leary, counsel for Enbridge Gas Inc., the applicant, and I'm joined here today from Regulatory with Haris Ginis and Patricia Squires, and we have the miracle worker Bonnie Adams on the screens again.

If I could now introduce our witness panel. We have on the right Mr. Craig Fernandes, manager, residential energy conservation. And to his left -- his right, sorry, my left, is Daniel Johnson, manager DSM strategy and policy.

# ENBRIDGE GAS INC. - PANEL

# CRAIG FERNANDES

# DANIEL JOHNSON

D. O'LEARY: If we're ready to begin, Mr. Murray, Mr. Fernandes has a short opening statement that we thought would provide a little clarity and an update since the July 9th filing if we --

L. MURRAY: Perhaps just before we start that, maybe if we could see if anyone else had -- I wanted to canvass the room to see if there were any preliminary issues about today's technical conference before Enbridge provides their evidence.

# PRELIMINARY MATTERS

Mr. Elson, did you have a preliminary issue?

K. ELSON: No, I don't have any preliminary issues, Mr. Murray. The only item that I noted before we started today is that I anticipate being a lot quicker than my allotted time. It's difficult to know exactly how things will go because it's unusual to have a technical conference before we have a lot of details through interrogatories. But depending on how things go, we should be able to get back a fair amount of time. And I know there are some other folks after me who had some additional questions. So on balance, I think we'll be ahead of schedule.

L. MURRAY: Thank you, Mr. Elson. So perhaps with that, I will pass things over to Mr. O'Leary.

D. O'LEARY: If I can ask Mr. Fernandes, then, to make a brief opening statement.

C. FERNANDES: Thank you, Mr. O'Leary.

One quick item prior to an opening statement. I think all the parties are aware that Mr. Elson met with Enbridge. I want to thank him for a constructive meeting. That was helpful in moving things along as per the OEB's request.

One question he had during that meeting was about the UCT or PAC test for the residential program. We didn't have the response to Mr. Elson at the time, so I thought we would open up with that response. The PAC is calculated at 1.12 for the residential program. I just wanted to make sure all parties were aware of that.

In terms of opening statement, we wanted to open with a few items to ensure there was clarity because there is a number of different terminologies being used for the residential program, along with the context of how some of the offerings have changed over a period of time.

The residential program has had a number of collaborative opportunities over the course of the last few years. Within our last proceeding, Enbridge had filed for the Whole Home program offering under the name Home Efficiency Rebate or H-E-R or HER, but was concurrently in negotiations with NRCan on the Canada Greener Homes Grant initiative funding. An agreement with NRCan was reached prior to the conclusion of the last DSM proceeding.

With the OEB approval of the residential program, the Whole Home program offering was updated to HER+, which was the same offering structure, but with additional funding from NRCan on the greener homes. Enbridge was the program administrator within Ontario, so under Her+, Ontario residents were eligible to receive the Canada Greener Homes Grant rebates for measures, and Enbridge natural gas ratepayers were entitled to additional stacked incentives funded from the DSM program budget.

As everyone can recall, HER+ was highly successful, and intake into the program offering was suspended in February of 2024 as funding was forecast to be fully allocated. This left a gap in the Ontario market for consumers who wished to understand their home's energy consumption and make upgrades to manage their energy bills and save on natural gas.

So in mid-2024, Enbridge launched a replacement program under the original name of H-E-R or HER and under the original approvals and budgets from the OEB for the 2023 to 2025 term. At that time, rebate levels had to be re-established as there was only one source of funding and no stacking of funding or stacking of rebates.

This did mean a reduction from HER+ combined rebates to consumers; however, some of the rebates were established specifically to manage within the OEB approvals for the budget while also taking cost-effectiveness into account.

Some of the notable items are the rebates for fenestration products or windows and doors were set to $50 per rough opening. The intent was to maintain some rebate level to encourage consumers to upgrade their homes, but also to manage the much lower cost-effectiveness from these measures. This was a large reduction from the HER+ rebate levels for the same items.

The second was to alter the incentives for heat pumps from a fixed value per unit to a capacity-based value of $500 per tonne of equipment capacity. The intent for heat pumps was to align the incentive with gas savings, which is the primary objective of DSM and how we're measured on the residential scorecard. Larger capacity heat pumps are capable of offsetting more natural gas, so the consumer rebate or incentive was trying to encourage larger-capacity heat pumps to be installed.

Thirdly, the minimum two-measure requirement was reintroduced in HER. HER+, which largely followed Canada Greener Homes rebates and program rules, had only one efficiency measure which it required. So the Whole Home program currently has a two measure minimum requirement.

The relaunched HER was in market until January of 2025 when the Home Renovation Savings program was launched. The Home Renovation Savings, or HRS, program is based on a collaboration between the IESO and Enbridge and was a response to the direction from the province in seeking a "one-window" program for residential consumers. When speaking today, we may use "HRS program" as being synonymous or interchangeable with "one-window program."

The HRS program is the one-stop place for Ontario residential consumers to go for energy conservation programming. HRS allows for natural gas, electric, propane, oil, and wood-heated homes to have opportunities to upgrade their home and save energy. All of Enbridge's residential DSM programming is now under the HRS energy conservation brand. The funding for the HRS program combines Enbridge's approved residential DSM budget, with funding from the IESO with Enbridge Gas customers funded from the DSM budget and IESO largely funding homes heated by electricity, propane, oil, and wood. There is some minor crossover or stacking of funding, and where this occurs will be highlighted shortly.

Under HRS, what we have called "program offerings" in DSM in the past is being called "program streams." So the HRS Home Assessment Stream is the Whole Home program offering. The HRS smart thermostat stream is the smart home offering, et cetera.

Enbridge and IESO collaborated on the program design elements in keeping with the direction to offer a one-window approach for all fuels. This included offering common rebate levels for the same measures across all fuels wherever possible under the separate and distinct Enbridge and IESO-approved DSM frameworks and budgets.

There were some changes made to the residential program design when HRS was launched. Most notably, heat pumps were moved out of the Home Assessment Stream to be a single-measure prescriptive item. Rebates for natural gas customers remain at the $500 per tonne of equipment capacity level. The intent was to have a simplified process for consumers, as only some consumers interested in the heat pump valued the time and cost of a full-home assessment. This also saves costs for the program administrator as there would be fewer rebates associated with the home assessments themselves.

While reviewing and aligning rebate levels across all fuels, IESO has agreed to stacking of funding for a limited fuel efficiency measures for gas-heated homes. As shown in Exhibit C, tab 2, schedule 1, table 1, C-2-1, table 1, under the "HRS assessment stream," there are two efficiency measures for Enbridge as customers which received funding from both the DSM budget and the IESO budget. They are windows, doors, and air sealing. The stacking of incentives in these cases is modest, and there are no other stacked incentives with additional funding coming from the IESO for efficiency measures for natural gas consumers within the HRS program.

As stated previously, HER+ intake for new participants was closed in February of 2024. Participants still had until March 2027 to complete their home upgrades to continue to be eligible for rebates as aligned with Canada Greener Homes Grant program rules.

An update is in the last week or so, Canada Greener Homes has announced that the program will close by December of 2025. Enbridge is mirroring the communication for HER+ within Ontario. This means that there is no material expectations for HER+ participation to come from the 2026 DSM budget and is why Enbridge felt it important to include forecasts without HER+ included in the evidence.

So to summarize, we hope parties can understand the various changes to the residential DSM program that have happened since the last OEB decision, including the collaborative opportunities that benefitted gas ratepayers and how we tried to manage those benefits over time to benefit consumers while managing in our role as the program administrator.

Thank you. And I think I pass that back to Mr. Murray?

L. MURRAY: Thank you very much, Mr. Fernandes.

First on the list is Mr. Elson. You can proceed with your questions.

K. ELSON: Good morning. Thank you. Again, my name is Kent Elson. I represent Environmental Defence, and I'm also representing Green Energy Coalition for the purposes of this technical conference.

# EXAMINATION BY K. ELSON:

K. ELSON: I just wanted to preface some of my questions with a comment, which is to say that I will be asking questions about the cost-effectiveness calculations in Enbridge's program, but I just wanted to note that none of those questions are meant as a criticism of the rollover application. And I say that because I know that Enbridge prepared the application quickly, and by necessity did not make significant changes to the cost-effectiveness, you know, variables.

And, frankly, we think you did the right thing by making this a simple rollover. We think it's helpful to explore whether the programs are actually more cost-effective than is set out in the rollover application, but that isn't to say that we're suggesting that Enbridge should have done anything different in terms of making it simple and efficient.

So with that preface, I will start my questions relating to cost-effectiveness. And I'd like to do that by introducing the topic of the social cost of carbon, and I'll read from Procedural Order No. 2 as a foundation for this initial question. It says:

"In preparing evidence relating to the Government of Canada's removal of the consumer fuel charge, Enbridge Gas shall include to what extent the social cost of carbon should be considered, if at all, and discuss any considerations related to the cost of carbon Enbridge Gas has given to determining what value or benefit will be achieved by the proposed DSM measures."[as read]

And so that's from Procedural Order 2, and my question is this: I take it that Enbridge has not accounted for the social cost of carbon in the cost-effectiveness calculations for the 2026 plan simply because it's a simple rollover; right?

D. JOHNSON: So that's correct. The Board has made it clear that that's a topic for 2027.

K. ELSON: And so the OEB should not take that as any negative comment on the appropriateness of accounting for the social cost of carbon in cost-effectiveness evaluations; fair?

D. JOHNSON: Yeah, correct. Our opinion is that is something that should be discussed in the future.

K. ELSON: Right. And so I imagine that means that Enbridge hasn't made any final decisions on whether to propose accounting for the social cost of carbon in assessing cost-effectiveness of DSM program? Is that true, or is it more so just you think that that shouldn't really be discussed until we're looking at your 2027 plan?

D. JOHNSON: Yeah, I don't think that that would be in scope for this discussion.

K. ELSON: Okay. Well, then I will be very quick on this topic, and I would ask you to -- or ask Bonnie, please, to pull up Document 1 that we circulated yesterday. And this is a document outlining the social cost of carbon as prescribed by the federal government. And if you could turn to page 3 at the bottom, please. There is a highlighted portion, and it provides a table which presents the annual social cost of GHG estimates for use by the Government of Canada and its agencies, effective December 2022. Do you see that there?

D. JOHNSON: I do.

K. ELSON: I think you would agree that those are the values that the federal government has prescribed and uses?

D. JOHNSON: I agree it's prescribed. I have to admit, I don't -- like, it appears to be a document from the federal government. I don't know enough to say how it's used, but it's clearly from the government.

K. ELSON: And I just have a simple question, which is that if these numbers were used in your cost-effectiveness evaluations for the residential program, that would make the residential program cost-effective with respect to the total resource costs; is that fair to say?

D. JOHNSON: So I haven't done any calculation with this value. What I can say, Mr. Elson, is within our evidence -- and I'm just trying to -- it's C23, page 5 -- we have a -- I'll just let Bonnie pull that up. We've done the calculation with -- had the federal cost of carbon remained -- oh, no. It was -- you were there. Go up.

So you can see that the residential TRC ratio would be 1.15. If the federal cost of carbon had remained in place, the values that you had up appear to be higher than the federal cost of carbon, although I haven't compared all years. So I think that's a fair conclusion that you just drew.

K. ELSON: Okay. That was a long question, and I'm going to want to refer to your answer. And so let me just ask it again in a sort of briefer way.

If you were to use the social cost of carbon prescribed by the federal government, that would make the residential program cost-effective; correct?

D. JOHNSON: Yes. I guess I'm saying I haven't done that math, but certainly --

K. ELSON: Okay.

D. JOHNSON: -- based on the math we have done, that appears to be true.

K. ELSON: Well, can I ask you, then, to do that math by way of undertaking? I just want to make it 100 percent crystal clear that there isn't any ambiguity there. I'm -- I'm sure I know what the answer is already, but I would appreciate an undertaking, if you could do that.

D. JOHNSON: I think you've got the information you need here. Again, with the federal cost of carbon -- or, sorry, I should say the federal carbon charge, the TRC was above 1. That should be enough information.

K. ELSON: Got it. So from that we can conclude -- and perhaps Bonnie could turn back to the figures prescribed by the federal government, and they have the cost of carbon in 2020 being $247 per CO2 equivalent.

And, Bonnie, if you could scroll down a little bit.

By 2030, that increases to 294. And so when you're saying we have the information, you're saying you can determine based on this that if we were to use the federally prescribed social cost of carbon, it would make the residential program cost-effective; is that correct?

D. JOHNSON: Yeah, given these numbers are quite a bit higher than the federal cost of carbon, so by definition, that has to be true.

K. ELSON: Excellent. Okay. Well, then I don't need an undertaking, and I know that you have a short amount of time to answer undertakings. So that answer is sufficient, so I'll move on.

M. BROPHY: Mr. Elson, I was just going to check, was that document marked as an exhibit?

L. MURRAY: That's what I was about to say.

K. ELSON: No. We should mark it.

L. MURRAY: I realize it was filed yesterday, but just for ease of reference, like, when something isn't part of the original evidence, I think it's best that we just file it as an exhibit. So it will be the -- perhaps you can describe the document, Kent, and then I'll give it an exhibit number.

K. ELSON: Yes. The document is entitled "Social Cost of Greenhouse Gas Emissions," and it is a website that has been printed from the Government of Canada.

L. MURRAY: That will be given Exhibit AT1.1.

EXHIBIT KT1.1: DOCUMENT ENTITLED "SOCIAL COST OF GREENHOUSE GAS EMISSIONS"

K. ELSON: Ms. DeMarco, do you want to jump in?

L. DeMARCO: I do. I just want to ensure that Mr. Elson is referring to the social cost of carbon at 294. I am unclear as to whether or not he is referring to the social cost of methane at 3,073.

K. ELSON: No, that is a good point. That would be the cost of methane emissions at 3,073, so uncombusted methane. Is that your understanding, Mr. Johnson, if we scroll up?

D. JOHNSON: I'm not quite sure I understood the question. If it's that the table has three columns, the first one appears to be for CO2, the second for CH4, and the third for N2O, that's what I see.

K. ELSON: I think Ms. DeMarco was just wishing to have clarity on the record that the numbers that we were discussing earlier in the 200s were the social cost of carbon for the carbon dioxide emissions resulting from the combustion of methane, i.e., natural gas. But we would need to move to the second column, which are in the range of 2 or $3,000 for the social cost of carbon of methane that is released into the atmosphere uncombusted; is that your understanding?

D. JOHNSON: I'm -- I'm not an expert on the social cost of carbon, so I -- what you're saying doesn't seem unreasonable, but I can't confirm that. I'm not an expert here.

K. ELSON: Well, if Ms. DeMarco had any follow-up questions, I'll leave it to her. We're just focused on the first column, which is the straightforward cost per CO2e.

Okay. So I am going to turn my questions now to the discount rate. And similar to the social cost of carbon, I understand that Enbridge hasn't updated the discount rate or considered updating the discount rate or changed the discount rate in your cost-effectiveness calculations for the rollover because it is a simple rollover, and that is beyond the scope of what you would do in a simple rollover; is that fair to say?

D. JOHNSON: Correct. I would just elaborate to say it's something that is prescribed -- the discount rate is prescribed in the framework, and we're not proposing any changes to the framework. Again, as you were saying, for a rollover application, that did not seem appropriate to us.

K. ELSON: Fair. And I assume that you are aware of literature suggesting that DSM programs should be evaluated with a social or societal discount rate?

D. JOHNSON: I -- I did get a chance to quickly look at what you had sent earlier.

K. ELSON: Okay. Well, why don't we put that up on the screen. If you could turn to Document 2 that we circulated yesterday, Bonnie. And I'll describe this for the record so that we can set it as an exhibit at the outset. This is an expert report prepared by the Energy Futures Group for the previous DSM proceeding, which is EB-2021-0002, and it is dated 2021.

D. O'LEARY: If I could just interject briefly here, Mr. Elson. I certainly -- we certainly have no difficulty in you using the document to facilitate asking some questions, but we just want to make it clear that the author of the report that you're referring to is, in fact, an expert retained by ED and/or GEC, and it was filed in the last multi-year proceeding.

You've indicated in your letter to the Board that ED GEC would not be filing any expert evidence in this proceeding, and we're certainly operating on that basis. And so I would hope that it would be understood that while you can ask some questions that flow from some of the suggestions in here, this document is not being filed on the evidentiary record for the purposes of allowing parties to make submissions in this proceeding; is that fair?

K. ELSON: That's fine, Mr. O'Leary.

D. O'LEARY: Thank you.

L. MURRAY: Perhaps I can give that an exhibit number, KT1.2.

EXHIBIT KT1.2: EXPERT REPORT PREPARED BY THE ENERGY FUTURES GROUP FOR PREVIOUS DSM PROCEEDING, EB-2021-0002, DATED 2021

K. ELSON: Thank you, Mr. Murray.

If we could turn to page 44, so PDF page 44, and -- sorry, PDF page 42. I would like to -- no. Actually, I changed my mind. Sorry.

I'm going to start on page 44 at the bottom. There is a paragraph here, and it says that:

"An inappropriately high discount rate has a number of negative impacts. First, it inaccurately skews the selection of measures away from those with more lasting benefits that stretch far into the future. The result is that too few longer-lived measures would be identified through the prioritization process. Second, it inaccurately undercounts the benefits of DSM. On the margin, this will mean that some measures are inaccurately identified as not being cost-effective. It also reduces the overall calculation of net-benefits."[as read]

Mr. Johnson, would you agree with those statements?

D. JOHNSON: I think what I would agree with, Mr. Elson, is the mechanics of what you're saying there. I think some of the verbiage of "inappropriately" confers an opinion about whether the rate is correct, and, again, I think that's a topic that's best left for the future. But I do agree with the mechanics of if you lowered the discount rate, savings out in the future would have a greater net present value.

The one thing I would just add to that is any costs out into the future, so, for example, if you had a measure that had reductions in one fuel and increases in another, those would also have a greater net present value today

K. ELSON: Got it. So, Mr. Johnson, I think what you're saying is you're not -- you don't want to opine on what's the appropriate discount rate. All you were agreeing with in relation to this paragraph is that the result of a rate that's too high -- we'll put aside what "too high" means for now -- is that longer-lived measures would be less likely to be identified through the prioritization process, and on the margin, some measures that are cost-effective would be identified as not being cost-effective. Fair?

D. JOHNSON: Yeah. So, again, I'm going to repeat that back, just slightly differently, and reinforce that, as you say, that's something that, I think, we're not going to opine on whether it is too high or not too high. That is a discussion best left for the future. But, yes, if you have a higher value or higher discount rate, that will mean that long-lived measures will not fair as well in a cost -- in a TRC cost-effectiveness test.

K. ELSON: Thank you, that's helpful.

If you could turn to page 42 of the PDF, and I'd like to specifically draw your attention to the second-last bullet that's highlighted. And I'll read it out for the record. It says:

"Real societal discount rates range from 0% to 3%. Though there is no one 'correct' answer to what the societal discount rate should be, a useful and commonly used reference are implicit real rates of return from government bonds. Canadian real return bond yields have averaged about 0.5% over the past several years. That would be a reasonable ... discount rate to use for DSM analyses."

(As read)

Now, I'm not going to ask you to agree or disagree, but what I am going to ask you is whether applying a 0.5 percent discount rate to the cost-effectiveness calculations would make the residential program cost-effective.

Now, I've put the numbers in your Excel spreadsheet, and I came up with a TRC of 1. And so I would be happy to walk through that now if you don't want to do it by way of an undertaking, but doing it by way of an undertaking might be slightly faster so that you could just confirm that swapping that discount rate recommended by Mr. Neme would result in the residential program overall being cost-effective. Is that something you'd prefer to do by way of undertaking?

D. JOHNSON: Yeah, I don't think I would want to do that kind of complex math on the fly here. And I say "complex math," and to your point, I think it's - we provided a spreadsheet where it might be as simple as changing one cell, but I would want to make sure, you know, that flows through properly and works correctly before agreeing to anything.

K. ELSON: Thank you, Mr. Johnson.

D. JOHNSON: Notionally, it would improve it for sure. Whether or not it's above 1 is what I'm hesitant to agree to.

L. MURRAY: Yeah. So we'll mark that as Undertaking JT1.1.

K. ELSON: Thank you.

D. O'LEARY: And just so we are clear, so we are going to take a suggested discount rate of 0.5 and calculate the impact on the cost-effectiveness of the residential program.

K. ELSON: As a whole, yes, thank you.

D. O'LEARY: As a whole.

UNDERTAKING JT1.1: take a suggested discount rate of 0.5 and calculate the impact on the cost-effectiveness of the residential program (UNDER ADVISEMENT)

K. ELSON: I'll turn now to the program administrator cost test with -- which Mr. Fernandes referred to earlier as the "PAC test." And I understand that under that test, you said the ratio of benefits to cost is 1.15; is that correct?

C. FERNANDES: 1.12, Mr. Elson.

K. ELSON: 1.12. Okay. Well, hopefully that .03 doesn't make a difference here.

I think it would be helpful to have on the record what that test is. I know you folks are very familiar with it. But the 1.12 means that the residential program is cost-effective in accordance with the program administrator cost tests; is that fair to say?

C. FERNANDES: That's correct.

K. ELSON: And the program and test considers the cost effectiveness from the perspective of the program administrator, and that includes the incentive costs, the program costs, and the verified net energy savings, i.e., benefits of the initiative; is that fair to say?

D. JOHNSON: That's my recollection, yes.

K. ELSON: And so what it means, in essence, is that for every dollar that is invested by the utility in terms of an incentive cost and program costs, customers are saving more than a dollar in avoided energy costs?

D. JOHNSON: Correct. The piece that's -- that's -- so they're saving on their energy bills, but it doesn't take into account their up-front costs.

K. ELSON: It's just focusing on what Enbridge is paying as opposed to the customer side of the equation, including, you know, non-energy benefits and that sort of thing?

D. JOHNSON: Yeah, I will say the total cost hence the total -- the "T" in TRC.

K. ELSON: Got it. And just before we leave this area, this is also known as the utility cost test; correct?

D. JOHNSON: Yeah, the two are often used interchangeably, and I don't recall off the top of my head if there is a subtle difference or not.

K. ELSON: Okay. I'll turn now to some of your evidence in the Excel spreadsheet on, I believe it was, Exhibit D1-1.

Bonnie, if you could turn that up, that would be appreciated.

While Bonnie is turning that up, I can say in column B, which is what I would like to refer to, there is reference to "heat pump A" and "heat pump D." And those are different categories within Natural Resources Canada's sizing guide; is that correct?

C. FERNANDES: That's correct --

K. ELSON: And -- pardon?

D. FERNANDES: -- do you want -- do you want us to describe what the sizing guide means briefly for other parties?

K. ELSON: Sure. You could explain the difference between the -- or maybe the theoretical difference between a heat pump A and a heat pump D.

C. FERNANDES: Okay. I'll try and do it quickly and also be illustrative. So the sizing and selection guide is intended to be for HVAC contractors' sizing equipment in the field. If we had a case of a detached home, for example, that had a 2-tonne air conditioner, and it probably had something like a 60,000 BTU furnace, which is the equivalent of 5 tonnes of capacity, it's likely oversized substantially. For the purposes of this discussion, let's call it oversized by 25 percent. It keeps the math easy. That means the actual requirement for the equipment is only 4 tonnes. So a 4-tonne heating requirement and a 2-tonne cooling requirement.

There is different sizing options for consumers, depending on what they are interested in. A 4A refers to a consumer that's interested in changing the air conditioner to a heat pump and not changing the capacity at all, so they would be swapping out a 2-tonne air conditioner for a 2-tonne heat pump.

Going to a 4B and 4C is larger or upsizing relative to the air conditioning load. So a 4B could be upsizing to, say, a 2.5 or a 3-tonne to try and take more of the heating load. 4C is referring to trying to take most of the heating load. So you could be putting in a 4-tonne heat pump. And 4D refers to someone whose goal is to remove the natural gas furnace and fully electrify their space heating, and they likely would want to have a large enough capacity heat pump to take the vast majority of the heating throughout the season, but it would likely have some form of auxiliary electric resistance heating combined with it. Is that --

K. ELSON: Are both --

C. FERNANDES: -- Mr. Kent --

K. ELSON: I think that's good for the record, yes.

Are both still cold climate heat pumps?

C. FERNANDES: It could be a standard air source heat pump, but for purposes of our discussion here, I would think we should stick to cold climate air source heat pumps. That's what qualifies for our program, and that's what we think the market is going to the future. So if I refer to an air source heat pump, I'm actually referring to a cold climate air source heat pump for the purposes of our discussion today.

K. ELSON: Got it. So when you say it could be a non-cold climate heat pump, you mean for the purposes of the NRCan sizing guide. But for the purposes of your program, the eligible products must be cold climate heat pumps? That's what you're saying?

C. FERNANDES: Correct. And that's where we think the market is going in any event. So at some point, there won't be air source -- like, standard -- non-cold climate versions likely available. The market is moving to cold climate.

K. ELSON: If we could turn to the second tab in this spreadsheet. The tab title is "Measure TRC+ Calculator." And in column B, we have heat pump A and we have heat pump D. Why don't you have heat pump B or C listed here, something in between the smallest and the biggest?

C. FERNANDES: So with the removal of the federal carbon charge -- so first off, the short answer, Mr. Elson, is that is a simplifying assumption for the purposes of providing a forecast. In using that same illustrative example with the removal of the federal carbon charge, the evidence that we filed in Exhibit C, tab 2, schedule 2, or C-2-2, on heat pumps attempted to describe the fact that we have a lot of uncertainty within our forecast, and it has to do with the fact that consumers haven't experienced the non-federal carbon charge pricing.

So in simplifying the forecasts, the assumptions that we're making is that consumers would understand the impact of the federal carbon charge, and they would likely be priced sensitive to their total energy bill. So if they put in a sized heat pump for A, it can likely take most of the heating load that a consumer would want to or would be capable of operating down to a switchover temperature cold enough for those consumers. And upsizing the heat pump would cost more for a higher-capacity system, but there is no reason for a consumer to do that if they're not planning on utilizing the capacity. That is why there are only two, but, you know, we are admittedly saying that our -- we have uncertainty in our forecast because we -- it's brand new. We don't know how consumers are going to respond. It's a very recent --

K. ELSON: Fair. My question actually relates to your annual gas savings shown in column J. And your annual gas savings for heat pump D are 1,117 cubic metres, but for heat pump A, they're only 179 cubic metres. And it strikes me to be a very low number and that you could save considerably more gas with, let's say, a 2-tonne heat pump. I mean, my house is double brick with no insulation, and I have 2.5 tonnes, and it heats my whole house.

And so I'm just wondering directionally if your heat pumps are able to provide more of the home heating than would be predicted by the NRCan model, is that improving your cost-effectiveness?

C. FERNANDES: So, Ms. Adams, if you could go to Exhibit C, tab 2, schedule 2, on page 7, we provided table 1 -- sorry, that was C-2-2, page 7, table 1. So this table shows the natural gas savings based on an outdoor switchover temperature, Mr. Elson. And you can see, depending on what the switchover temperature is used, you get a vastly different number.

So to kind of clarify, get down to your question, the assumptions embedded for 4A in the cost-effectiveness table that you were referring to has a temperature of 6 degrees Celsius is the forecast assumption that we have. And that's -- as noted throughout C-2-2 or this portion of our evidence, we are saying that we don't know how consumers are going to operate their equipment, so we provided this table to show how much of a difference that particular item can actually make. So, for example, if those 4As operated down to 0 degrees Celsius, instead of the 179 number, would be approximately the 760 shown.

K. ELSON: Got it. And so if a customer sets their switchover temperature at 0 degrees Celsius with a heat pump A, which is a heat pump that's not sized to serve the entire load, you would find that the gas savings would increase from 179, as shown in column J, to 760 cubic metres. Is that -- have I summed that up correctly?

C. FERNANDES: Yeah, that's indicative, yes.

K. ELSON: Okay. That's helpful. Thank you.

Let me turn to -- actually, let me ask a question by way of undertaking. Could you undertake to provide the underlying calculations for how you came up with the 179 cubic metres of savings, including the coefficient of performance, which is another word for efficiency, basically, for the record, of the heat pump that would be used at those temperatures?

C. FERNANDES: So, Mr. Elson, I'm not clear. Because if we look throughout this particular schedule, we demonstrated a COP curve -- I mean, the basis of those calculations is outlined in this schedule so --

K. ELSON: Let me put it this way, if you have an Excel spreadsheet that you used, we would appreciate that so that we can put in different figures and see how that impacts cost-effectiveness. Is that something you could provide?

C. FERNANDES: Yes, we can.

K. ELSON: Thank you.

L. MURRAY: That will be Undertaking JT1.2.

UNDERTAKING JT1.2: TO PROVIDE THE UNDERLYING CALCULATIONS FOR HOW THE 179 CUBIC METRES OF SAVINGS CAME UP, INCLUDING THE COEFFICIENT OF PERFORMANCE OF THE HEAT PUMP THAT WOULD BE USED AT THOSE TEMPERATURES

K. ELSON: Thank you.

If we could turn back to the -- I believe D11 is the exhibit number. It's the Excel spreadsheet with the total resource cost calculations. And in column K, it's showing negative electricity savings, and what that represents is the cost of electricity that must be incurred in order to create the offsetting gas savings. Is that right?

D. JOHNSON: That's correct.

K. ELSON: And that's based on a seasonal coefficient of performance?

D. JOHNSON: No -- sorry, one second.

[Witness panel confers]

D. JOHNSON: Sorry, Mr. Elson, just for clarity, you were referring to column J, kilowatt hours; correct?

K. ELSON: Yeah, column K, kilowatt hours, the energy savings, electricity energy savings, which are negative.

D. JOHNSON: Thanks. Give us one more second.

[Witness panel confers]

C. FERNANDES: So, yes, Mr. Elson. We -- the calculations that we performed is not based on an assumed seasonal performance curve. It's more based on a bin analysis, hour by hour. So I think that will be included in what we would have in the previous undertaking.

K. ELSON: Thank you. Is that something that Enbridge prepared in house, or did you have an external consultant derive those figures?

C. FERNANDES: An external consultant provided a model.

K. ELSON: Is that the Navigant model that you have provided in previous proceedings or something different?

C. FERNANDES: It's more of an enhanced version. Very similar in nature, but not the same.

K. ELSON: Okay. And so I think in Undertaking 1.2, you're going to be providing that Navigant model, and that's going to contain within it information that we can use to determine what the coefficient of performance would be for the heat pumps?

C. FERNANDES: It will have that information. It's not Navigant again, but the way I would describe it is it uses an hour-by-hour analysis, so it's not reliant on a defined seasonal performance; it actually calculates performance hour by hour, and then you could back-calculate the seasonal performance from that, but it's -- it's not using what the -- the way you've described it, Mr. Elson, it's an hour-by-hour analysis using a COP performance curve.

K. ELSON: Okay. So I'm going to ask for an additional undertaking because you say that I could back-calculate a seasonal coefficient of performance, but I'm not an expert. So for us to be able to use that in evidence, we would need a figure from Enbridge, and then that would reduce any sort of disagreements about whether it had been done properly.

Could you please undertake to calculate the implied seasonal coefficient of performance for the heat pump A and the heat pump D as reflected in the model that you described.

C. FERNANDES: With the assumptions that we had in our filed evidence?

K. ELSON: Yes.

C. FERNANDES: Yeah, we can do that.

K. ELSON: Thank you.

L. MURRAY: That will be Undertaking JT1.3.

K. ELSON: Thank you.

UNDERTAKING JT1.3: TO CALCULATE THE IMPLIED SEASONAL COEFFICIENT OF PERFORMANCE FOR HEAT PUMP A AND HEAT PUMP D AS REFLECTED IN THE MODEL DESCRIBED

K. ELSON: Now, in order to calculate the electricity capacity costs, I assume that you have modelled, you know, what the peak demand is in the summer and winter and electric design day assumptions. Are those found in your Excel model? And if not, could you please indicate what they are by way of undertaking.

D. JOHNSON: So there is a -- as always, there is a bit of a complicated answer to that. So the output of that model, which has hour by hour, the IESO has a 87 60 tool that they use to identify -- that you put in the values and identifies where those overlap with their peak summer and peak winter. So that's why you will see there is column L and column M, peak summer and winter values that either increases or decreases.

So we take the output of that model, compare it against their model to determine where there is overlap, and it is their model that calculates what the kilowatt peak values are. The one thing is we did have to modify their model. Their model was given -- their program is designed to reduce consumption. Their model was not designed for increases. So we had to make a modification to that. We explained notionally what we did. They said that makes sense, but, of course, they weren't going to take ownership of something that's not theirs. So we -- you know, they're not validating our math, by any means, but they agreed that conceptually what we've done has made sense there.

K. ELSON: That's helpful, Mr. Johnson. Could you please undertake to provide that spreadsheet with the values that Enbridge inputted?

D. JOHNSON: So we can ask IESO if they have any concerns, because they provided that to us, but assuming that they don't, we could undertake to provide that.

K. ELSON: Thank you.

L. MURRAY: That will be Undertaking JT1.4.

K. ELSON: Thank you.

UNDERTAKING JT1.4: TO PROVIDE THE SPREADSHEET WITH THE VALUES THAT ENBRIDGE INPUTTED

K. ELSON: So column L talks about the summer peak capacity savings, and I take it that's reflecting the value of cold climate heat pumps in cooling more efficiently than what would otherwise be installed in a home?

C. FERNANDES: That's correct. Over an assumed air conditioning baseline, there is an improvement because they act as more efficient in cooling mode than a baseline AC unit.

K. ELSON: And how did you come up with the baseline figure versus the cold climate heat pump figure?

C. FERNANDES: That's a placeholder value. What we are in the process of building is a prescriptive subdoc. In the opening statement, we mentioned we were moving heat pumps from the Whole Home custom program into a prescriptive program. So we've done the majority of the work to put together a subdoc for that prescriptive measure being heat pumps.

The plan is to submit it to the evaluation and audit committee for review shortly, the next month, month and a half or so, where, you know, the standard OEB process is for them to review and comment on the technical aspects of that, make any adjustments before it gets approved for usage.

So our baselines and incremental costs and savings are all going to be reviewed during that process. So I would say they are -- I mean, the -- depending on which item you're talking about, we believe in the savings depending on the temperature cutover, but there is still a few remaining items such as the incremental costs, and they'll have to validate the baselines that we've used. But those values we don't really expect to change, so they're placeholders until otherwise approved.

K. ELSON: And so when you say they're placeholders, that's because you, you know, are putting together this prescriptive subdoc, and the values that you've used here are your draft values. Is that a fair way to describe them?

C. FERNANDES: Yeah, they're based on the draft values, and then probably the only major outstanding item we have is we have a third-party consultant doing a market study to look at the incremental cost for heat pumps. So we don't have that back yet. The rest of the subdoc is, you know, close to final, barring that. So we do expect to submit it sometime around the end of August, maybe into September, depending on the exact timing of everything and vacation schedules and whatnot.

K. ELSON: Got it.

C. FERNANDES: Practical matter, we're still in draft mode, but we're close to final.

K. ELSON: Okay, that's helpful. And would you be able to undertake -- I know you won't be able to provide it within the timeline of this deadline, by August 5th, but when it's prepared, would you be able to undertake to file it in this proceeding along with, you know, any updates to your cost-effectiveness calculator?

D. O'LEARY: Can I jump in there. I'm a little concerned about asking for a document that Mr. Fernandes has indicated is still in draft, being filed in this proceeding at some point that actually could occur between the date -- the cutoff date for undertakings and the dates for submissions, but it sounds like it would be much later.

So I'm -- Mr. Elson, I'm just wondering, what benefit would a draft document be filed before the EAC sees it? I'm trying to understand how that's helpful here.

K. ELSON: It would be helpful if it tells us that different values are being used. And so what I would propose, Mr. O'Leary, in the interest of time is that you just take this one away and consider and let us know, so take it under advisement. That would be fine for now.

D. O'LEARY: Yeah, that's fine.

L. MURRAY: Perhaps I'll just -- I realize that's not a firm undertaking being given, but just so we can keep track of this, that will be marked as JT1.5, just so we can hear back from Enbridge when they get a chance to consider it further.

K. ELSON: Thank you.

UNDERTAKING JT1.5: TO FILE THE PRESCRIPTIVE SUBDOCS IN THIS PROCEEDING ALONG WITH ANY UPDATES TO COST-EFFECTIVENESS CALCULATOR WHEN PREPARED AND PROVIDE THE STUDY ON HEAT PUMP COSTS (UNDER ADVISEMENT) (AMENDED ON PAGE 44)

K. ELSON: Okay. So I think that may actually be answering a whole lot of my other questions too, but let me see.

So going back to the -- the -- I've described the seasonal coefficient of performance, but you're using a coefficient of performance curve. Where did you get that curve from?

C. FERNANDES: Ms. Adams, could you go back to Exhibit C, tab 2, schedule 2. On page 5, we have a figure that shows the COP curve for typical electric cold climate air source heat pump. That is footnoted. So if -- I'll read the footnote:

"The COP curve is based on data from the Northeast Energy Efficiency Partnership (NEEP) database for electric cold climate air source heat pumps for various equipment configurations. The COP curve also includes impacts of the defrost cycle energy as standard COP curves will not include defrost cycle energy. The defrost cycle is when the electric cold climate air source heat pump uses energy to prevent ice buildup on the exterior coils that would degrade the performance of the equipment. The energy used in the defrost cycle results in an operational cost to the consumer and, therefore, needs to be accounted for in the performance of the equipment."[as read]

So it's using the NEEP database for cold climate air source heat pumps to kind of come up with an average curve, and it includes -- in that model, it does include the defrost cycle energy requirements.

K. ELSON: And when you say it's -- I mean, NEEP is a very large database. Your staff or your consultant looked at that database and came up with a -- roughly an average curve; is that how it worked? Because there are so many heat pumps on there, it's hard for me to understand exactly what you mean.

C. FERNANDES: Yeah, the NEEP database, just to be clear -- you know, I think the previous evidence from Mr. Neme that you had put up briefly showed, like, 1,700 different model numbers. But to be clear, there is not really that many in the database. If a manufacturer has a 2-, 2-and-a-half, 3-, 3-and-a-half, 4-, and 5-tonne unit, they would all have different model numbers even though they're on the same product line, and that same product line could have two or three different configurations, so it multiplies out. So there is not nearly that many product lines in the database, so to speak. But that was the basis of drawing from the cold climate data within that database to come up with a performance curve.

K. ELSON: That's helpful. But even if there was only two heat pumps in that database, you would still have to pick which one or do an average, and I'm just trying to understand. I believe you said you developed roughly an average from the heat pumps that are part of the Northeast Energy Efficiency Partnership database; is that correct?

C. FERNANDES: That's my understanding of the consultant's work.

K. ELSON: Okay.

M. BROPHY: Mr. Elson, can I just ask a very quick clarifying question? It's Michael Brophy.

K. ELSON: Sure.

M. BROPHY: So I just want to make sure I heard it right. So you took some values from the NEEP database or report, and then Enbridge made further adjustments to add energy related to the defrost cycle, or was that already -- or you just took the values right from the NEEP database? I'm just wondering if you made adjustments after you took those values or not?

C. FERNANDES: So to clarify as best I can, so third-party engineering consultant, the NEEP database was the reference point which they used. Typically it will list three to maybe five data points that manufacturers submit into that database as points along a performance curve. Those manufacturer performance curves explicitly exclude defrost cycle energy. So that was used to come up with a performance curve, and then the model calculates defrost cycle requirements, is the way I would understand it.

M. BROPHY: Okay. So --

C. FERNANDES: So -- so when you say, "adjusting the COP curves," we're using the COP curves as stated, recognizing that they don't include defrost cycle energy.

M. BROPHY: Okay. So I just want to make sure I heard you correct. So Enbridge retained a consultant. They're the ones that took the values, and then they made an adjustment and provided kind of a final number to Enbridge that you're using; is that right?

C. FERNANDES: Yeah, it's the -- there is a multitude of outputs from a model that would go into our prescriptive subdoc, which is what we're planning to use.

M. BROPHY: Okay. Can you just provide the work and analysis. I guess it's a report the consultant provided that works through what you just talked about. Are you able to provide that?

C. FERNANDES: So Mr. Elson already asked us for the model itself as an undertaking, and we accepted that.

M. BROPHY: Okay. So that's everything you got from the consultant, or is there a report or other document that they produced for you?

C. FERNANDES: There will be a cover with it that we will provide, but the work was for creation of the model. The model with different inputs is used to derive a number of items that we are using for the prescriptive subdoc that we will be submitting to the EAC.

M. BROPHY: Okay.

C. FERNANDES: So I'm not sure what else we can provide.

M. BROPHY: Yeah. Well, if you've undertaken to provide the model that was developed by your engineering consultant, if you can just include the materials that you received from them along with that. If it's just the cover letter, that's fine, but that would be terrific. Thank you.

D. O'LEARY: Mr. Brophy, it's Dennis O'Leary. I don't believe that that would be terribly helpful, so what we have undertaken to provide is the working spreadsheet. I don't see how asking for something additional to that is going to be of any benefit to the Board, so we're not going to accept that undertaking.

J. SHEPHERD: I wonder if I can just jump in here. Jay Shepherd. I don't understand why, if the consultant provided you with an explanation of the steps they took to get to the results they had, which typically is what they would do, why you wouldn't include that with the model that you're providing. If they took certain data and they made adjustments to it and they explained to you what they did, which almost certainly they did, there is a document that does that, and that is explanatory of the model; and, therefore, we would need to see it, I think.

C. FERNANDES: So Mr. --

J. SHEPHERD: Isn't that right, Dennis?

C. FERNANDES: Mr. Shepherd, I said that there is a cover memo that goes with the model, and we will provide it.

J. SHEPHERD: Well, I think Mr. O'Leary just said that you wouldn't, so that's why I'm asking.

D. O'LEARY: What I said was that the previous undertaking would stand, and if the memo is going to be produced as part of that undertaking, that's fine, but we're not going further. I understand that what Mr. Brophy was asking for was digging down into the consultant's file, and we're not going to go any further.

M. BROPHY: No, just the memo with the model and the undertaking is fine. Thank you.

J. SHEPHERD: Okay.

K. ELSON: Well, let me ask one follow-up question because, you know, I've had in the past received of a model and there is actually a separate inputs file. I don't know if there is in this case, but if there is a separate inputs file, if you can include that as well, that would be appreciated.

C. FERNANDES: Understood.

K. ELSON: Thank you.

Okay. So let me just ask a small question. When you calculate the negative energy savings, do you account for the differential and the furnace blower fan and that you'll -- you know, when you swap out a furnace, you then aren't using the furnace fan. How is that accounted for?

C. FERNANDES: That -- I believe that's included in the model, Mr. Elson. It's a system effect. Because yes, and that, you know, when you swap out the furnace, you still have an air handler of some sort for a central ducted system to be able to operate.

K. ELSON: Of course. I'm just worried that, you know, I have seen in the past that the blower fan is included in the electrical requirements of the heat pump unit, but not included in the baseline. Could you confirm by way of undertaking whether the baseline includes the furnace blower fan for both the heat pump A and D?

C. FERNANDES: Mr. Elson, I'm positive that that's included in the model. I don't -- I don't think we need to --

K. ELSON: Will that be clear from the document that we receive from you folks?

C. FERNANDES: Yeah, I believe it will.

K. ELSON: Okay. If it's not, if you could point us to the place where that's set out, that would be appreciated. And I don't think we need another undertaking for that. We can just include that under the previous one, if you're okay with that, Mr. Fernandes?

C. FERNANDES: Yeah, that should be fine.

K. ELSON: Okay. So I had some questions about the heat pump costs. I understand that the figures you have are -- I guess you could say draft figures. When do you expect to get back the report or the study looking at incremental costs?

C. FERNANDES: Sometime in approximately the next month.

K. ELSON: Okay.

C. FERNANDES: We have a third party consultant doing the market survey, as I mentioned. They're in process trying to get responses.

K. ELSON: Who's doing that work?

C. FERNANDES: I'd have to double check, but I think it's Ipsos.

K. ELSON: And can you undertake to provide that report when it's ready?

C. FERNANDES: It would certainly be provided as part of the documentation for the EAC, but the timing is problematic. So I don't think we have any issue with providing it -- the OEB has a process with the EAC to vet these types of things. I think my preference would be for all that material to be available after the already-established process by the OEB is completed. I'm not sure of the timing implications in this proceeding.

D. O'LEARY: So this one would fall under the under advisement Undertaking JT1.5. But given that it's not likely to be available until after submissions and even made in this proceeding, I don't see how it could be helpful.

K. ELSON: That's -- that would be fine with me if -- we will include that under the under advisement Undertaking JT1.5. So now that includes both the subdoc, as Mr. Fernandes has described it, and also particularly the study on heat pump costs. We'll wait to hear back from you. Hopefully it gets completed sooner rather than later. That's sufficient for my purposes.

But I see, Mr. Brophy, you came on camera?

M. BROPHY: Yeah, I was just going to note that the OEB has required Enbridge to file documents like this even after a decision has been issued for a year in the proceeding before. And so pertinent materials that are relevant, you know, the timing of them being available to file versus, you know, the procedural order in this proceeding, really, shouldn't be a barrier, but I just note that and, you know, include that in your taking away under advisement. But it's been done before by the OEB, and Enbridge has filed those documents even after a decision has been issued for DSM proceedings before. So I just thought I would mention that.

K. ELSON: The figures that you have now for the costs, are they for the -- well, I'll simplistically describe them as the most expensive Japanese units or for the more commonly used units that come from China for, you know, Daikin and Gree and Moovair and that sort of thing?

C. FERNANDES: The placeholder values that we have is based on our best available information. They're broad averages of what we believe is available in the market today. Probably the biggest variable we have is not necessarily the cost of the heat pump but it's really the baseline, so understanding the cost of the air conditioner that's assumed to be in the baseline. So you're talking about incremental costs, not total costs. So that's kind of where I think our uncertainty would reside. Of course, the market is shifting over time. So again, I will acknowledge that. Which is why we're doing -- you know, we've asked someone to do a market study.

K. ELSON: That's great. And in terms of what you have there, you said it's sort of an average. So it would be an average between some of the more expensive models that are made in Japan versus the, you know, more common ones that are made in China and sold under a whole variety of brands?

C. FERNANDES: I think that would be indicative. Again, the work we're doing to put into the subdoc will get fully vetted from an incremental cost and technical perspective through the EAC prior to the subdoc actually being finalized/approved for usage. So the numbers are expected that there -- there could be changes after we submit it. Again, there is already a standard process that the OEB has for creating and approving the subdoc.

K. ELSON: Thank you. In column P from Exhibit 1-1 -- we don't actually need to pull it up, Ms. Adams, but there's a 15 percent non-energy benefits adder. And just to confirm, that is a generic adder that is used across all programs, and it doesn't necessarily reflect the benefits that customers receive from cold climate heat pumps, including better cooling, more consistent cooling and heating, and even getting cooling that they didn't previously have. Is that fair to say?

D. JOHNSON: So maybe I'll -- you kind of discussed three separate pieces there. I'm going to try and make sure I didn't miss any of them. So the first, to answer your question specifically is, yes, that is described in the framework. It's a 15 percent adder to the benefits that we apply across the board.

The second thing, you kind of described a number of benefits, some of which I think would be captured, you'd said, more efficient cooling, as we discussed earlier, that actually would be captured in the reduced electricity consumption. So that one was captured. There was something else you talked about there that one could -- again, the 15 percent benefit adder, I can pull up the specific description if you want, but, you know, it's meant to cover a broad range of things. So some of the things you described could potentially be included there and some not.

The last thing you talked about was having cooling. Can you just repeat that one? Because I think you were getting at something there that I wanted to talk about, but I'm not quite sure I understood your comment on the third one.

K. ELSON: Sure. It would be from a D-type heat pump, I guess you could say, using the Natural Resources Canada terminology where you replaced a furnace with an air source heat pump, and that just might be an instance where a customer benefits because they actually have cooling that they didn't have before.

And when I said "better cooling," I was being imprecise, and I should have said "stronger cooling." I recognize that the efficiency gains and the savings are accounted for, but the comfort of having a stronger cooling system on hot days is another non-energy benefit. Frankly, your answer in terms of some may be accounted for, some aren't, is sufficient for this purpose because, as we all know, the nonenergy benefits adder isn't getting changed now. But if you have anything else to add, please go ahead. But if not, I can move on.

D. JOHNSON: Yeah, I just would clarify the addition of cooling, you know, as Mr. Fernandes alluded to earlier -- and actually was in reference to when someone is replacing the air conditioner, but if someone doesn't have an air conditioner, we're actually assuming the base case is they would have installed an air conditioner, so we're actually removing that from the incremental costs. So if you add in the benefits, you would also have to add in the costs, so I think we're being appropriate there.

K. ELSON: That's a good point. I agree.

I was going to ask some questions about avoided costs, but I believe others behind me are. So I can move on to just a quick question around free ridership. Mr. Johnson, I think you can agree as incentives go up, generally speaking, other things equal, free ridership goes down because it's less likely that customers would have been installing the measure irregardless; is that fair to say?

D. JOHNSON: I think there is a whole bunch of nuances and specific cases depending on how the program is designed, but as a general statement, I think that's fair.

K. ELSON: And I understand that Enbridge is going to be exploring delivery improvements, and that could increase uptake and results and cost-effectiveness; is that fair to say?

C. FERNANDES: Well, I think we were -- would always look to improve the programming, the very model we operate under incents us to try and have more participation. So I have to generally agree with your statement without any specifics, Mr. Elson.

K. ELSON: I have two more lines of questions, and I'm going to be done and giving Mr. Murray much more time back. And so I actually propose to continue as I am now. I don't think I will be more than 10 minutes, if that's sufficient for you, Mr. Murray, or do you prefer to take a break now?

L. MURRAY: If it's 10 minutes, I say let's just push through, and we can start after the break with the next questioner.

K. ELSON: Thank you.

We have heard from the federal government during the election that there may be a new program to provide energy efficiency investments. I don't have the latest on that. If that were to occur and there could be stacking of programming, would that increase overall cost-effectiveness?

D. JOHNSON: Without knowing the details of that, that's very hard to say, Mr. Elson. So, for example, as you will see, some of our measures are not cost-effective. So if it drove uptake of not cost-effective measures, then it could make it worse. If it drove uptake of cost-effective measures, it could make it better. So without -- it's too broad a question to answer with any confidence.

K. ELSON: Well, let me -- sorry, go ahead, Mr. Fernandes.

C. FERNANDES: The other item I think we would have to add is that combining funding from multiple sources generally requires some form of attribution agreement, and that's what could potentially swing it one way or the other. So the uncertainty is it could go up or down. Like, you know, it's impossible to predict that without knowing more details. It's not something I think that you can say is generally true.

K. ELSON: Got it.

C. FERNANDES: That being said, I think probably the most important point of those types of programs was the -- based on our past experience in the last proceeding, I think the OEB and most parties would agree, if there is funding available federally, ensuring that that funding is maximized to the benefit of Ontarians is something that I believe is true. And it may not be captured in the cost-effectiveness test appropriately. So if through a, you know, calculation it showed, you know, the portion of DSM funding had a lower cost-effectiveness, it doesn't mean that ratepayers weren't better off. So I wouldn't -- I wouldn't -- you know, that's a very difficult question, but I think the broader principle is more important. If there is funding available, I think we would endeavour to try and capture as much as possible to benefit our customers.

K. ELSON: Got it. And I think what you're saying is doing so will be facilitated by having your own residential program so that you can coordinate with the federal government and help move those dollars into the pockets of Ontario energy consumers?

C. FERNANDES: Yeah, we would be hard-pressed to collaborate with the federal government if there -- if there was nothing to collaborate on.

K. ELSON: Yes. So that actually leads to my last line of questions, which will be brief, and it revolves around a scenario where the Energy Board says that all of your residential programs are going to be eliminated that are cost-ineffective and what that would do, how that would impact customers, how that would impact IESO coordination, the HVAC industry, your staffing, and potential coordination with the federal government. I'll go through each of those, but I should just ask you that at a high level, what would be some of the impacts of your residential program being eliminated?

C. FERNANDES: So that's a -- that's a large volume of items. So if -- based on what we filed, it was a pure elimination of all offerings that had a ratio below 1. Is that the --

K. ELSON: Yes.

C. FERNANDES: -- circumstance you're referring to? Well, that would leave simply the smart thermostat offering. Presumably, if we go through the areas of impact, first, from Enbridge, that would mean there is a number of Enbridge staff that would have no roles effectively.

From the perspective of the industry, that would mean a number of parties in the industry such as service organizations and energy auditors would not have programming from the natural gas funding to support what they're doing. That could have a significant impact from an HVAC industry. There would be a vastly reduced suite of programming to support that industry and having higher efficiency, particularly around heat pumps. There is a multitude of other industry participants that would be impacted from not having the Home Assessment Stream for natural gas, such as insulation, you know, upgrading the building envelope.

And I guess finally, of the items that you mentioned, presumably there is a substantial reduction in funding, like, you know, residential DSM program budget that goes along with that. The impact to the Home Renovation Savings program, the collaboration with IESO would be very significant. We mentioned off the top that the government wanted a one-window approach. We've collaborated to have consistency wherever possible across all fuels. That would certainly eliminate natural gas from that statement across most of the program streams under the Home Renovation Savings. And depending on how that was done, the reduction in a residential program budget and the Enbridge staffing would mean that we may not be able to fulfil our portion of that combined program.

So the nature of the Home Renovation Savings program collaboration is that IESO and Enbridge are working together to deliver the single program facing to external consumers. The funding is brought together in the back end, and it's not a concern of particular consumers where the funding is coming from. But we have endeavoured to collaborate and provide the program administrator functions with trying to eliminate duplication.

So a simplified example would be we have agreed that Enbridge is hosting the website, but the IESO is responsible for the call centre. That way, we can eliminate as much duplication as possible. Enbridge is acting as the program administrator for the Home Assessment Stream and the smart thermostat stream. The IESO is acting as the program administrator for the single-measure heat pump and solar and battery. So depending on the staffing impacts, we wouldn't be able to meet those obligations, and we would have to take some form of off ramp in that.

So it would -- you know, trying to speculate, hopefully, Mr. Elson, that that's a very significant change, so it would clearly significantly impact the Home Renovation Savings program because we may not have the resources to be able to do what activities we have agreed with the IESO in that collaboration.

K. ELSON: Yeah, I think "significant impact" seems to be understating it. It seems to me from what you have described, it would wreak havoc on the IESO programs. You need to put all new materials together differentiating -- you know, saying that certain measures are not available for gas customers. They would need to find a new administrator for their home assessment and smart thermostat stream, and there would be any other number of, you know, financial knock-on effects. Is that a fair summary?

D. JOHNSON: Yeah. Mr. Elson, I was actually just going to add that I think there -- you know, as everything that Mr. Fernandes just referred to, there would be wind-down costs associated with it. As we have spoken about earlier, you know, there is a lot of topics that we think should be discussed in 2027. So we would view that as a really, really bad outcome whereas a future discussion, maybe some of those topics result in some things becoming cost-effective again, which is certainly a possibility. And the result is you've just wound everything down, and then you've got to incur a whole bunch of costs to ramp things back up. All the impact that you've had to the market in that time will discourage people. So we've tried to outline, you know, some of those consequences well in our evidence.

K. ELSON: Go ahead, Mr. Fernandes.

C. FERNANDES: Mr. Johnson was stating as well that the last category would be, in that type of scenario that you mentioned, Mr. Elson, a vast reduction in the residential program budget. There is still the portfolio overheads. So one item would be the way the portfolio overheads are allocated is through program spend. So with a number of fixed-cost items on the portfolio side of things, it would actually impact non-residential programming through higher allocation of overheads.

K. ELSON: And I assume if you fire a lot of staff, it's hard to hire them back again, they find new roles, if, for 2027, you're, you know, picking back up again. In other words, it would be disruptive in terms of -- from a human resource staffing perspective?

C. FERNANDES: So, Mr. Elson, that's what Mr. Johnson was referring to, if there was a wind-down, and this is not just within Enbridge; this is within the industry. You know, people are employed. They're not going to sit at home for 8 or 10 or 12 or 14 months and then come back into the same role. You not only have the disruption of the wind-down, but the ramp-up is exceedingly difficult because you won't have experienced staff. And that's -- it's not just an Enbridge issue; it's throughout the industry.

K. ELSON: And I imagine you would lose efficiency in the Home Renovation Savings program because you have certain fixed overhead items that are now spread out over a smaller amount of programming that is really focused on electrically heated homes; is that fair to say?

C. FERNANDES: Electric and other fuels. I -- the way I think -- the way I think you're -- what you're trying to say, Mr. Elson, is that the TRC+ calculation doesn't capture all of the benefits. There are things like the collaboration that would be impacted. So the calculation is how it's been done and defined in the framework and how it's been done historically, but it's not necessarily a perfect calculation. It's an indicator.

K. ELSON: Thank you. Those are my questions. And I release the rest of my time to you, Mr. Murray, and to anyone else who might need it. And thank you very much for your answers, Mr. Johnson and Mr. Fernandes.

L. MURRAY: Thank you very much, Mr. Elson. We'll take our break now, and we will come back at 11:25.

# --- Recess taken at 11:10 a.m.

# --- On resuming at 11:26 a.m.

L. MURRAY: We're back in the technical conference. Next on the list for questioners is Mr. Brophy with Pollution Probe. Over to you.

M. BROPHY: Thank you, Mr. Murray. My name is Michael Brophy, and I will be asking questions on behalf of Pollution Probe. As Mr. Elson had noted and I think we discussed before coming on the record this morning, Mr. Elson has made some time available. We're hoping to stick pretty close to our original time but may need to use 15 to 20 minutes max, which still is a time savings overall.

Okay. So why don't I start with C-2-2, page 5, which is part of the evidence that you were chatting about with Mr. Elson already this morning.

**EXAMINATION BY M. BROPHY:**

M. BROPHY: I'll just wait for it to come up. Page 5. Okay. I think you're familiar with this, but if you need, we can fit it to the screen entirely. So I think Enbridge highlighted this morning that the diagram that's on the screen from C-2-2, page 5, is Enbridge's understanding of the performance of a typical electric cold climate air source heat pump, and that was based on some work you had commissioned; is that correct?

C. FERNANDES: That is correct.

M. BROPHY: Okay. And then Enbridge agreed this morning to provide its engineering consultant's model and cover material, which is based on some U.S. information. So when we were comparing information on C-2-2, page 5, to current local information for electric cold climate air source heat pumps used in Ontario, the Enbridge coefficient performance or COP value seems quite a bit worse, and hopefully we'll be able to understand that from the material that you submit.

So, for example, Enbridge is -- on the screen, Enbridge is suggesting a COP of around 1.7 or so at minus 15 degrees Celsius, and the more kind of modern, current information from local sources is around 2.5 to 3.0 range. And Enbridge is suggesting that the COP goes down pretty much close to 0 at around minus 30 degrees Celsius, where the current local information suggests a COP in the range of 1.5 to 2.0 range at minus 30 degrees Celsius.

Would you agree that that's a significant difference that would impact the calculations of savings and economics?

C. FERNANDES: Mr. Brophy, I'm not familiar with current local information and what that is.

M. BROPHY: Okay. So what I'd suggest, I'm happy to share the table I'm referring to and then ask Enbridge to just compare that to the information that you're using in this graph and provide comments on the differences. Would you be able to do that?

C. FERNANDES: Well, Mr. Brophy, if you had provided that upfront, we could have probably provided some level of commentary, but we've already had a discussion with Mr. Elson, and, you know, he highlighted the fact that there is variances in the different models and their efficiencies, and I think we agreed with that. But there is also variances in the costs. So I'm not sure what you're asking us to do beyond that.

M. BROPHY: Are you familiar with common air source heat pump models? So, for example, Mitsubishi is a common manufacturer. They have one that's called a Zuba. It's an electric cold climate air source heat pump. Are you familiar with that kind of model?

C. FERNANDES: That kind of model has gone through our programming in the past. It is one of the most efficient units on the market. It's also one of the highest-priced units on the market.

M. BROPHY: So you would agree, then, that, you know, the COP is in the range I mentioned, which is different than what's on the table?

C. FERNANDES: No, I would not agree with that. I don't think that's defendable in actual realized performance in the field. If you wanted to, I think the Department of Energy is -- has a cold climate heat pump challenge undergoing in January. I think they have an interim report available, and it wouldn't match the numbers that you're describing. So I would go for a more documented in-field test result from a reliable source like the Department of Energy in the United States.

M. BROPHY: So could you undertake just to provide your reasons why you think the COP numbers I mentioned are not valid and -- in comparison to the ones that you were using?

D. O'LEARY: Mr. Brophy, it's Dennis O'Leary. You're asking these witnesses to offer comments in respect of numbers that aren't even before them. I don't see how any reasonable person could respond to such a request.

M. BROPHY: So Mr. Fernandes noted that they've looked at Mitsubishi's Zuba heat pump and others like it and that those COPs are higher, but they don't believe that they are actual in-field numbers. And all I'm asking for is Enbridge to provide an explanation on why we shouldn't be using the higher numbers that are in industry documentation and using lower numbers.

D. JOHNSON: Mr. Brophy, maybe I could add something that might help resolve this. So the other thing that Mr. Fernandes mentioned, and I don't know if you agree with this or not but -- and I -- to be clear, I don't know the models. I'm just basing this on the two of your -- the discussion between the two of you is that those -- the models you were referring to were much more expensive. So your initial question asked about cost-effectiveness. If the COP was improved to some degree but the incremental costs went up notably, I actually suspect it would have a negative impact on cost-effectiveness. So depending on what, you know, your question is really about, he may have already answered it.

M. BROPHY: Okay. So you would agree that, you know, there are models that have higher COPs than what's shown on this graph, but you're just indicating that they likely come with a higher cost that would also impact the cost-effectiveness test; is that right?

C. FERNANDES: That's correct. In order to get higher performance from a physics perspective, those units would have things like larger heat exchangers, and they cost more money, so, you know, a high-end unit will cost more. It will perform better, but it will cost more. I'm not sure what else I can say beyond that.

M. BROPHY: Okay. I think that's fine for now. I'll move on to the next question. Thank you.

The next reference is C-2-2, page 7, table 1, and I believe that you were talking to Mr. Elson about this table as well. Yeah, it's on the screen now. Great. Thank you.

So I think you gave a quick explanation of this table, but my understanding is this is the calculated -- or estimated DSM savings based on a hybrid heating scenario where an electric heat pump is installed, but they also require a natural gas furnace be available for heating, and it's switched over from the heat pump to the gas furnace at certain set points that are identified on the page; is that correct?

C. FERNANDES: So this does show the outdoor switchover temperature and the natural gas savings from operating an electric heat pump. One thing to note is I think the way you described it is fair. The smaller numbers on the table would refer to a hybrid heating situation where the auxiliary or backup equipment is a natural gas furnace. The footnote in the minus 16 temperature is -- that's the coldest forecast average temperature. It's an -- is an indication of how much savings could be had for full electrification, or, you know, you could have a heat pump with an electric auxiliary system. So it's indicative of, you know, complete conversion of space heating for that typical residential consumer in Toronto.

M. BROPHY: Okay. I thought that hybrid heating scenario was excluded from DSM by the OEB; is that not correct?

C. FERNANDES: No, that's not.

M. BROPHY: Okay. So your understanding is the OEB's enabled you to use hybrid heating for DSM?

C. FERNANDES: Absolutely they have.

M. BROPHY: Okay. And I think you had undertaken to provide calculations of savings underlying this table. Is that -- was that for all the savings calculations shown in this table or was that just -- oh, I think, you know, it wasn't for the ones on this table. I think it was just in relation to the 179m3 of savings. So if you can provide the savings calculations for the scenarios shown on this table, that would be appreciated.

C. FERNANDES: We agreed to provide the model or tool that would generate this table. So is there a specific scenario you're looking for, Mr. Brophy?

M. BROPHY: So you're suggesting, then, with the model, you agreed to provide -- you just plug in the values from the table and you'll get the corresponding answer; is that correct?

C. FERNANDES: Well, I think with Mr. Elson, I confirmed that our forecast assumption was 6 degrees Celsius. The table shows 5 degree increments up to -- or down to minus 10, I guess, and then minus 16. The -- what is it you're actually looking for? Because I'm not clear.

M. BROPHY: Yeah, no problem. We're looking for the underlying calculations that arrive at the savings amount on the table. And if you're saying that the -- I think you're providing an active version of the model that -- in the undertaking. You're saying that we can then just calculate it using that model, that's fine. But if not, then we would be looking for you to provide the savings calculations for the savings outlined in this table.

C. FERNANDES: So the model is fairly complex. You would be able to generate these values with the model. But to be clear, you don't need that complex of a model to generate this table. In this specific example, which is a typical residential consumer in Toronto, the 1,765m3 in line 6 is the entirety of their space heating consumption, and then the various temperatures are really just saying, well, what portion of that 1,765 occurs at that temperature or above. So it's really just a heating demand curve.

M. BROPHY: Okay. So it's proration using a curve. Would you be able to just provide an explanation of that?

C. FERNANDES: Beyond what I just did?

M. BROPHY: Yeah. So that we can then replicate the savings values that are indicated in the column.

C. FERNANDES: So replicating -- like, I'm not sure I'm understanding what your request is. Because, as I stated, there is a demand curve for Toronto, and this is really just breaking down points along the curve.

M. BROPHY: Okay. So --

C. FERNANDES: So I'm not sure what you're looking for. Do you want us to break out the table in finer increments for some purpose?

M. BROPHY: It sounds like what you've done is you've taken the full heating load, which is the 1,765, and then you've prorated the savings down using the Toronto demand curve; is that correct?

C. FERNANDES: The heating demand is based on outdoor air temperature. So all we've done is put it into bins, and, for example, line 1 would show at 10 degrees or above, the total demand over a forecast average winter is 25m3 for heating demand. That's simply saying that when it's relatively warm outside, you don't use a lot of heat. Now, line 2 says at 5 degrees and above, that rises to 250m3 and so on and so forth. By the time you get down to minus 16, which for an average winter is the coldest temperature in that particular demand forecast, it is the total of all of the heating -- space heating requirements. So I'm not sure what you're asking us to provide or if you're looking for something specific that's more granular than 5 degree increments.

M. BROPHY: I think I understand how you've arrived at those values. The explanation provided, I think, the information. And you mentioned that for the demand curve used, which I think you said is Toronto, minus 16 is the coldest average temperature on the demand curve, which then would mean line 6, the air source heat pump wouldn't actually switch over to the gas furnace then because if it's running down to minus 16, you wouldn't need to switch to -- because the cold climate air source heat pumps go down to beyond minus 30, so you wouldn't actually need to switch over to the gas furnace on line 6 at all, would you?

C. FERNANDES: For line 6, the implicit assumption is if it was a hybrid system, given an average winter, your total consumption would be 1,765 if a heat pump was installed that was capable of not only operating at minus 16 but also operating with enough capacity to meet all of the heating demand, then you are correct.

M. BROPHY: Okay.

C. FERNANDES: But if the heat pump was not sized to be able to do that, it would run out of capacity and you would either have the temperature in the home drop or, more likely, use the auxiliary or backup heating system.

M. BROPHY: Okay. Yeah, when -- and I understand what you said. The line 6 scenario, then, is equivalent to not even having a gas furnace because you don't need to switch over if the air source heat pump can meet the heating needs at minus 16; is that correct?

C. FERNANDES: Yeah, I think the way I would say it is if you removed your furnace, your natural gas furnace, regardless of what you were using to heat your home, that's how much space heating would be offset. That could be electric baseboards -- not that I recommend it -- but, you know, if you were doing that, that would be the impact on the natural gas consumption.

M. BROPHY: Okay. And, again, just to be clear, the line 6 scenario, the cold climate electric air source heat pump's taking 100 percent of the heating load?

C. FERNANDES: That -- that's correct. And that's stated, I believe, in the footnote.

M. BROPHY: Yeah, okay. Thank you. I think I understand this chart better now. Thank you for that.

Okay. The next reference is C-2-2, attachment 1, page 3. Page 3. Perfect, thank you.

So on C-2-2, attachment 1, page 3, Enbridge provides an illustrative chart comparing an electric heat pump to natural gas. Is that what I'm seeing?

C. FERNANDES: That's what it says, yes.

M. BROPHY: Okay. And is this part of your marketing materials or reference materials you provide publicly?

C. FERNANDES: This is on the Home Renovation Savings website in a pull-down footnote. It's a disclaimer for natural gas-heated homes who are looking to potentially install a heat pump.

M. BROPHY: Okay. And when did you start using that reference material? That would have been in 2025 at some point? Earlier?

C. FERNANDES: It's definitely in 2025. I think it was in June. It might have been late May. But it's quite recent.

M. BROPHY: Okay. And what's the source of the information in the table?

C. FERNANDES: I'm sorry, Mr. Brophy. Does the page not describe it accurately?

M. BROPHY: Well, I see the numbers, but I'm just wondering how did you calculate it?

C. FERNANDES: It's described on the previous page.

M. BROPHY: So if you use, say, the -- well, I'll pick any line, but let's say the second one, electric air source heat pump, 400 percent efficiency, 500 kilowatt hours used, and that results in an energy costs of $62. You're saying that's on the page before. Maybe we can move to that, and you can show me where that calculation is.

C. FERNANDES: So thank you, Bonnie. What's on the screen now at the top, there is a reference to the Contractor's Guide to Heat Pumps. Basically says the typical range for air source heat pumps is a COP of 2 to 4, which is, you know, effective efficiency of 200 to 400 percent. So if we scroll back down to the table on the next page, that's really -- the first and the second column is book-ending the 200 and 400 percent.

Ms. Adams, if you scroll up a little bit to the previous page, the last paragraph describes approximate residential electricity prices from Toronto that's at 12.4 cents a kilowatt hour and natural gas prices at, you know, 30.9 cents a cubic metre. That's translated into kilowatt hours equivalency for the cost of natural gas. So if you scroll back down to the table, it's just arithmetic using those values.

M. BROPHY: Okay. So it's the variable costs on that calculation, not including any other bill costs or charges or anything, I think; right?

C. FERNANDES: That's explicitly stated on the page, yes.

M. BROPHY: Okay. Thank you.

Okay. If we can go to C-2-2, page 9, and just down a bit. Okay. Great. Thank you.

So you'll see at the bottom part of paragraph 20, there, Enbridge notes:

" ... natural gas heated consumers who are economically focused could be less likely to participate, which would negatively impact the uptake of electric cold climate air source heat pump incentives in the Residential DSM Program."[as read]

Do you see that?

C. FERNANDES: Yes. And I wrote it.

M. BROPHY: Okay, great. So what public material for the programs is this included in? Is this a footnote as well, or in a brochure?

C. FERNANDES: This was included in our evidence. And as stated with Mr. Elson, the whole purpose of C-2-2, or Exhibit C, tab 2, schedule 2, was to note that the challenges that we have as a program administrator specifically with respect to heat pumps now that the federal carbon charge has very recently been set to zero.

So the statement is just a fact that if someone is economically focused and understands the price spread and the efficiency differences between the equipment, they're quite likely not going to participate because the facts are if you take the COP curve and the price spread, in most instances, it's likely going to make their total energy bill go up. But the point was that Enbridge felt it was important to continue to offer heat pumps because not all consumers are purely economically focused, and it's an important choice for consumers within the overall DSM program.

M. BROPHY: Okay. So that type of wording, it's only included for context to the OEB in your evidence. It's not wording that you're using publicly in any materials; is that right?

C. FERNANDES: That's -- the wording that you're referencing here, absolutely.

M. BROPHY: Okay. Thank you. I understood that it might have been in some marketing material, but that helps clarify it. Thank you for that.

Okay. So -- actually, in the opening statement for Enbridge this morning, Mr. Fernandes touched on the partnership with IESO to combine Enbridge's DSM program offerings under a combined, I think you called it, Home Renovation Savings program, which began in 2025 and carries over into 2026, assuming the OEB approves your one-year rollover. Is that correct?

C. FERNANDES: That's correct.

M. BROPHY: Okay.

C. FERNANDES: It was officially launched in January.

M. BROPHY: Sure. Well, first off -- and this isn't a question, this part -- but its -- congratulations on advancing that partnership. It was one of the things that had been highlighted in the last OEB proceeding, and it's great to see that happening for many of the reasons that were outlined. So kudos there.

This is the first proceeding since Enbridge entered that partnership with IESO to offer the one-window approach on the Save on Energy programs, or I guess they're jointly called Home Renovation Savings program. And I think you touched on this, but I don't recall clearly. So that partnership has details about who pays what costs, the attribution and other program elements; is that correct?

C. FERNANDES: Correct. IESO and Enbridge are collaborating. It's under the Home Renovation Savings brand brought to you by Save on Energy and Enbridge Gas. And we have combined our funding and our programmatic activities to try and make sure that there is minimal duplication in bringing the funding sources together.

M. BROPHY: Okay. And similar to the Greener Homes program partnership agreement you mentioned, I think you've worked out split of costs and attribution and those types of elements. Is that -- you've done that for this program as well?

C. FERNANDES: I think maybe if we could take a -- just a short period of time to kind of set the context because the collaboration with NRCan through the Canada Greener Homes Grant initiative was quite fundamentally different. The federal funding was available to the provinces having a partner. Effectively, Enbridge was taking the role in the province and providing program administration for Canada Greener Homes within the province and then stacking additional funding based on the DSM residential program approvals on top of that. So we are under a collaboration agreement with NRCan where we are the de facto delivery agent within Ontario for all of those activities.

The collaboration with IESO is bringing funding together. As noted earlier, it's primarily Enbridge doing natural gas customers' funding. IESO is doing electricity, propane, oil, and wood, so all the other fuels. I noted in the opening statement, there is a minor amount of funding that flows from IESO's funding to natural gas ratepayers, but it's pretty minimal. That wasn't the case with the collaboration with NRCan.

But the more fundamental aspect, as you're saying, is that the agreement we have with IESO is that we are jointly doing the program administration function, and what we've done is try and divvy up activities to avoid duplication between the two entities. So the example was, for example, Enbridge is doing the web hosting, but IESO is doing the call centre. So we're not -- it's not the same arrangement where NRCan had contracted Enbridge to be the program administrator in all senses within Ontario.

M. BROPHY: Yes. And I -- yeah, I understand there would be different details in those agreements.

J. SHEPHERD: I wonder if I could jump in, Mike, to ask a question related to that.

M. BROPHY: Sure, go ahead.

J. SHEPHERD: This is Mr. Shepherd. I looked for that agreement in the filing. Is it in there somewhere, the agreement between Enbridge and IESO?

C. FERNANDES: In -- it is not.

J. SHEPHERD: Could you undertake to provide it?

D. O'LEARY: Mr. Shepherd, it's Dennis O'Leary. So we anticipated that someone was going to ask for that today. I can tell you that there are some confidentiality provisions in the agreement, and we've reached out to the IESO to ask for their view on what portions, if any, should be subject to a request for confidentiality. We don't as yet have a detailed response, so all we can provide today is really an undertaking that, by the date for undertaking responses, we will be able to advise of the position of Enbridge as to what portions, if any, should be the subject of a confidential request -- a request for confidentiality, and then the IESO would have an opportunity to do the same.

So it's anticipated -- without promising anything, it's anticipated that a good portion of the agreement will be filed with this undertaking, subject to a request for confidentiality where appropriate.

J. SHEPHERD: Well, sorry. Mr. O'Leary, are you saying that you will file the agreement, but some parts of it might be -- you might make a request for a confidential treatment, or are you saying you won't file the whole agreement?

D. O'LEARY: We're saying that if there is no request for confidential treatment, the agreement will be filed. If there are portions which either Enbridge and/or the IESO believe should be the subject of a request for confidential treatment, then we will follow the confidential guidelines under the rules and will file a redacted version on the public record and then make the request to the OEB for approval of the request for confidential treatment.

J. SHEPHERD: So you're not proposing that any of the agreement would be withheld entirely, as I understand it; you're proposing to follow the Board's rules, which is you filed everything, and you redact what you think is confidential?

D. O'LEARY: I don't anticipate that that's the case, but we have not heard back entirely from the IESO. They may take the view that the entire agreement is subject to a request, but I'm just not going to forecast what's going to happen right now. But -- so all those scenarios are in play, but I told you what I think is likely to happen.

J. SHEPHERD: Can I ask why you believe that IESO should have a say in this at all? The Board's policy is clear that if a regulated utility signs an agreement with a third party, it doesn't matter what the confidentiality provisions are in the agreement; you still have to file it.

D. O'LEARY: Mr. Shepherd, I understand what the rules say. IESO is a party to this agreement, and we believe it is only appropriate that they have some ability to at least respond and give their views on what sections, if not the entire agreement -- but what sections should be subject to a request for confidentiality. But I don't think now is the time to debate that. If there is a --

J. SHEPHERD: No. Clearly.

D. O'LEARY: -- request made, you are going to have your chance to make your submission.

J. SHEPHERD: Okay. Could we get an undertaking number for that, then, please, Lawren?

L. MURRAY: That will be Undertaking JT1.6.

J. SHEPHERD: Thanks very much.

UNDERTAKING JT1.6: TO PROVIDE THE AGREEMENT BETWEEN ENBRIDGE AND IESO

L. DeMARCO: Could I just weigh in on that, just to be crystal clear on what that undertaking is. My understanding is the undertaking is to produce the whole agreement, subject to any requested redactions that are filed and later debate as to the confidentiality of those sections; is that right?

D. O'LEARY: No, I don't think that's quite right, Lisa. What I said was that the agreement -- my belief is that portions of the agreement will be filed without request for confidentiality, but I can't speak for the IESO. They may very well request that the entire document be the subject of a request for confidentiality, in which case there won't be any document filed that doesn't have redacted provisions other than perhaps the title, and that under the Board's rules, each of the parties that are requesting confidential treatment, and those that are opposing it have a right to make submissions, and then the Board rules. And it's ultimately up to the OEB as to whether or not your request for confidentiality will be granted in whole or in part. That's the process.

J. SHEPHERD: That sounds satisfactory to me.

D. O'LEARY: We will be providing, on or before August 8th, Enbridge Gas's position on this, and the IESO may also be filing its position, and you can then respond accordingly if there has been a request made for confidentiality.

L. DeMARCO: Understood. So as I understand it -- and please clarify, Dennis, if I've got this wrong -- you could file simply the title of the document with the full document redacted, subject to argument, but there is no discrepancy or uncertainty related to the intent that there will be at least the title and some redaction filed? We're not going to have another argument about whether or not we have to go through the Board's confidentiality process?

L. MURRAY: Perhaps before Dennis answers that, I would like to also just sort of interject because it has also been not clear to OEB Staff. Is the intent sort of to file the entire agreement, like, with the Board as part of that, if there is any confidentiality concerns? There will be redacted portions put on the public record, but the OEB will receive sort of a full copy of the record upon which to evaluate everything --

D. O'LEARY: My understanding --

L. MURRAY: -- in a request for confidentiality?

D. O'LEARY: My understanding of the guidelines is that if you're going to request confidential treatment, you have to file a full copy unredacted with the OEB, and then if the Board grants a confidential treatment for all or part, parties that sign an undertaking are then granted access to that document that was filed. But on the public record, the parts that are ruled by the OEB to be confidential, would remain redacted.

M. BROPHY: Great. Is that --

L. DeMARCO: So full circle, that is the undertaking?

J. SHEPHERD: Yes.

M. BROPHY: Before I just move on to my last question, I note the OEB took a very strong position with the Greener Homes agreement, not just to file it, but to make sure as much of it as possible was publicly available and had a very stringent lens to any redactions there and followed the process that Dennis kind of outlined there, so I'm assuming they'll use the same lens here.

Okay. So I only have one more question --

L. DeMARCO: I wonder if I can just jump in here to achieve some efficiency. Instead of having to go through all the evidentiary references, it's specifically on this point and one additional question; does that work?

M. BROPHY: As long as it's -- I can get my last question in before we break for lunch, I'm okay.

L. DeMARCO: Mr. Murray, I look to you.

L. MURRAY: It is absolutely fine with me. I'm all about efficiencies.

L. DeMARCO: Thank you.

# EXAMINATION BY L. DeMARCO:

L. DeMARCO: In relation to this program administration rule with both NRCan and IESO, I wonder, gentlemen, if you can tell me if there's any -- been -- any study been undertaken as to the impact for the Enbridge brand as a function of performing that role, positive or negative?

C. FERNANDES: Not to -- a specific study, not to our knowledge.

L. DeMARCO: Do you have any data as to the impact on the Enbridge brand as a function of performing those roles?

C. FERNANDES: Nothing that any of us are aware of.

L. DeMARCO: Would I -- can I ask you to undertake to inquire as to whether there is any data or information --

C. FERNANDES: Ms. DeMarco, how is that relevant in this technical conference? The Board has put a very clear scope around this, and that has no bearing on cost-effectiveness of the residential program.

L. DeMARCO: It may very well affect the underestimation or overestimation, as the case may be, of the TRC+ test.

C. FERNANDES: It is not a factor in the TRC+.

D. O'LEARY: Yes. Lisa, it's Dennis O'Leary. I also don't understand how your question relates to any of the issues that are before the Board in this rollover proceeding, and you have the answer that these witnesses are not aware of any such study. We're not prepared to go any further than the responses given.

L. DeMARCO: I would argue and would look for an outcome that it's quite relative to the determination of the shareholder incentive and the related benefits associated with the program administration.

D. O'LEARY: We don't agree.

L. DeMARCO: Well, let's leave that there, then, and we will raise it again for resolution.

M. BROPHY: Okay. So last question relates to some wording that was in the -- the one-year plan filing. I think it was -- didn't have an evidence reference because it was in the first few pages, but I'll read it to you, and it will sound familiar, I'm sure. We can pull it up, if you need. It says:

"If a decision on 2026 DSM activities is not issued by September 30th, 2025, Enbridge will be required to make difficult decisions with respect to the implementation of its DSM program in the later part of 2025 and into 2026. This could involve suspending DSM programs and spending, including for a program that is jointly delivered with the IESO."[as read]

So it sounds like there's provisions, and we will see the agreement when you file it. There is some issues there that, you know, force Enbridge to then pull the plug on its partnership with IESO if that timing doesn't occur. Can you just walk me through that understanding? Is that a term in the agreement, or is that just your planning estimation of what Enbridge would like to have happen in order to keep its programs running?

C. FERNANDES: So the -- granted, I'm not a lawyer so -- but the simplified version of the way I would describe it, Mr. Brophy, is Enbridge being able to meet its obligations within the agreement is dependent on having OEB-approved funding for DSM programming. So if we don't have the approvals, we don't have the funding and, therefore, can't meet the obligations.

M. BROPHY: Okay. So there's nothing in the agreement that targets that September date; it's just your understanding?

C. FERNANDES: I believe there is language in the agreement on both sides that if the funding that the -- IESO or Enbridge is dependent on is no longer available, that's an offramp to the agreement.

M. BROPHY: Okay. And you may be familiar, in the past, Enbridge has received DSM decisions well past September 30th of the preceding year in which the program started and sometimes even well into the year, and Enbridge has continued delivering those DSM programs, knowing that the OEB supports the DSM programs.

So are you suggesting that, you know, Enbridge would change the approach and stop delivering, or you're just saying it's better that you receive those approvals prior to the start of the year and certainly before the September 30th date?

C. FERNANDES: So we are aware of those other instances in the fairly distant past. I would note that the budgets that were at issue at that point in time were significantly smaller than what we're talking about today. And I would also note that some of the parties have taken positions that Enbridge may not recover some of the amounts that it's spent through its DSM programs for, you know, various reasons.

So given the significant numbers involved, I don't think it would be necessarily correct to assume that we can go into next year and continue to spend. That's not feasible given the current context that we're under.

M. BROPHY: So has Enbridge made that decision formally, or is that still a pending decision if the Board was to provide a decision after September 30th?

C. FERNANDES: So, Mr. Brophy, again, you're kind of delving into something that's speculative when you say "after September 30th." We have a number of items that we're dependent on throughout our DSM programming. If the decision is delayed, you know, we have delivery agent contracts where we need to renew them. The scope and scale of our conservation programming efforts are vastly larger than they were in the years that you were referencing. There is going to be a lot of impacts, not just on us with our operational elements, but the uncertainty for our partners and consumers as well. So I'm not sure I can answer your question the way it's posed.

M. BROPHY: I think you kind of have, but just to make it clearer, if Enbridge was to pull the plug in that scenario on DSM, it would require senior management approval, I would assume, and that approval hasn't been sought or provided yet. Is that correct?

C. FERNANDES: Because there is no indication from the OEB that it would take longer. I mean, I think all of the actions in the procedural orders to date indicate that what Enbridge stated, the OEB understands and thinks is reasonable in terms of a request. So no, nothing's been requested because nothing's happened to require a request.

M. BROPHY: Okay. So it's pending in the future based on whatever information Enbridge has, and then you'll make your decisions in the future, it sounds like. Is that accurate?

C. FERNANDES: As it always would be, yes.

M. BROPHY: Okay. Thank you. That concludes my questions. Thank you very much, Panel. And I think you've got some time back, Mr. Murray.

L. MURRAY: Thank you very much, Mr. Brophy.

Next on the list, I believe, is Ms. Girvan with CCC.

J. GIRVAN: Thank you. How long do you intend to go to before the lunch break, Mr. Murray?

L. MURRAY: It was supposed to be 12:30, but we broke a little bit late for our break, so if you have to go a little bit beyond that, I think probably the benefit would be if we could get through your --

J. GIRVAN: I'll be more than -- yeah, I'll be more than 15 minutes. I just wondered if you wanted me to start and break or break and start.

L. MURRAY: I think it's -- let's start, and if it goes a little bit beyond -- like, do you have any sense -- if it's, like, let's say, 12:40, I think let's push through to 12:40 and get through your questions.

J. GIRVAN: I'll --

L. MURRAY: 12:45.

J. GIRVAN: I'll do my best.

L. MURRAY: Okay, excellent. So let's just start and see how far we get.

J. GIRVAN: Okay, thanks.

# EXAMINATION BY J. GIRVAN:

J. GIRVAN: Good -- is it afternoon? Good afternoon, witnesses, Mr. Fernandes and Mr. Johnson. Nice to see you again. So I just wanted -- you started out your, I guess, examination-in-chief, and you talked about the movement from the joint program delivered on behalf of NRCan to the one-window program jointly undertaken by Enbridge Gas and the IESO. And this happened in January 2025; is that correct?

C. FERNANDES: The Home Renovation Savings program, which is the brand which IESO and Enbridge are delivering jointly funded programming, started in January 2025, correct.

J. GIRVAN: Okay. So you started actually delivering the program in January 2025?

C. FERNANDES: Correct.

J. GIRVAN: Okay. Can you explain how this impacts the overall costs of the program relative to the arrangement that you had in NRCan -- with NRCan? I'm trying to understand the difference. You had an arrangement with NRCan. You had funding from NRCan. You now have an arrangement with the IESO, and you have funding from the IESO. So does that impact Enbridge's overall contribution to the program?

C. FERNANDES: So I'll go back and explain the NRCan agreement with Greener Homes first. It is limited to what we call "the Whole Home program." A version of the Whole Home program is within Home Renovation Savings under the Home Assessment Stream, but that offering requires a pre-assessment of the home by an energy auditor, and then the consumer would do, you know, one or more measures, and then get a final assessment. And that's all using the H2K ecosystem. So I think, Ms. Girvan, you're kind of familiar with that general format.

The agreement with Canada Greener Homes was funding that was intended to cover through to the first quarter of 2027. In February of 2024, the funding from NRCan was forecast to be fully allocated. So intake into the program was shut down. So there is a notable, lengthy time frame between when a customer or a participant starts their journey with the initial assessment, and then they generally take several months, if not more, to install one or more efficiency measures, and then they have to schedule the final audit, which is submitted to Enbridge, and that's where processing of a rebate would occur.

So as the opening statement -- and I mentioned the Canada Greener Homes program rules didn't have a defined period of time required between the pre-assessment and the post-assessment, as long as they completed everything by the end of 2027 was how the program was launched.

And, recently, because Greener Homes intake or the starting point was -- you know, intake was shut down as of February of 2024, it's been quite some time for any consumers that remain still eligible in the program. NRCan has communicated to the market and -- or -- or following suit that those consumers have to complete by the end of 2025. So that --

J. GIRVAN: Okay. Can --

C. FERNANDES: So that doesn't impact '26. It does impact '25 because we do have some participants coming through from that. At the same time, we would have participants coming through the Home Renovation Savings program. And the Home Renovation Savings program is broader because it has the Home Assessment Stream, which is the equivalent type of program, but it also has other streams beyond --

J. GIRVAN: Okay, sorry to interject. What I was really looking for is I'm looking at Enbridge's share of the funding and how it differs between the program you had with NRCan and the program that you had with the IESO. And my assumption is that, in fact, what's happened is that you had approved funding by the OEB in '23, '24, '25 for your residential home program, and that's the funding that you're contributing to the joint program; is that correct?

C. FERNANDES: Correct in both cases. All of our DSM funding is what the OEB has approved.

J. GIRVAN: Okay.

C. FERNANDES: So all of the collaborating --

J. GIRVAN: That -- that's really what I was getting at. And I was wondering if there is a difference between what your arrangement is with NRCan and what your arrangement is with the IESO in terms of your overall contribution to the budget.

C. FERNANDES: So the contribution to the budget, there's one nuance in there. In the previous decision, the OEB specifically tied to Greener Homes had removed the 15 percent allowance or cap on overspend.

J. GIRVAN: The SMVA?

C. FERNANDES: Yeah. Well, using additional dollars when more forecast to achieve greater than a hundred percent results has a 15 percent cap associated with it explicitly tied to the Greener Homes Grant funding. The OEB removed that cap, but that's specifically associated with the Greener Homes, so it doesn't apply to anything else.

J. GIRVAN: All right.

C. FERNANDES: So other than that, it is exclusively the OEB-approved funding under the existing framework.

J. GIRVAN: Okay. Thank you.

And can you tell me where does the IESO funding come from? Does it come from the Global Adjustment?

C. FERNANDES: I can only tell you it comes from the IESO.

J. GIRVAN: Okay. Okay. And in terms of your arrangement with the IESO, how did you determine with the IESO the level of IESO funding? And I'm sort of looking at the sharing of this program with the IESO, sort of who pays what. And how did you determine with the IESO the level of their funding? Because your starting point is what the Board approved; right?

C. FERNANDES: Correct. And the two organizations were coming as a starting point from very different places. So the starting point was the direction from the Province asking us to do the one-window approach. Enbridge already had residential programming in market in 2024, and the IESO did not have residential programming in market on a large-scale basis. That doesn't -- I'm excluding income qualified, but broad mass market residential.

So when we were asked to do this, you know, we got together with the IESO team and looked at what they had been planning and what Enbridge already had in market, and really looked to put the programming together under the one banner or the one-window approach.

In terms of how each party looked at it, Enbridge already had approvals and had something in market. So, you know, our starting point was clearly what we were already doing. But the Enbridge and the IESO operate under different budgetary approvals and different DSM frameworks. So they -- they reviewed --

J. GIRVAN: Okay. Could I -- sorry, go ahead.

C. FERNANDES: So they reviewed their -- our programming, which we were proposing under their framework and made the decisions for their funding. So there is a little bit of back and forth, but when you look at the outcome for things like the Home Assessment Stream, they largely adopted the measures and the rebate levels that Enbridge was already delivering, and there was some decisions to be made as noted in the opening statement where they saw some value with natural gas-heated homes. So they did stack a minor amount of funding on specific measures, but they largely are looking to achieve electric, propane, oil, and wood, and that's where the vast majority of their funding goes towards. Is that --

J. GIRVAN: Okay. So I may have missed -- that's helpful. I may have missed it, but do you have somewhere in the record -- and I don't think it's there -- the overall cost of the HRS program for '25 and '26 and both the Enbridge portion and the IESO portion?

C. FERNANDES: No, we do not.

J. GIRVAN: Could you file that?

C. FERNANDES: The -- we have some issues with filing the IESO information. It's not our information; it's theirs. And then the other piece from what you requested is a 2026 forecast. The IESO and Enbridge have an agreement where we're going to be putting a combined forecast together, but that hasn't taken place yet. So we're both operating under our individual approvals, but if we -- you know, we don't have a combined forecast for '26, so we can't file that.

J. GIRVAN: Could you file it for 2025? I guess what I'm really interested in is I'm trying to look at the relative share between Enbridge and the IESO in terms of the funding and both what the activities are that you're both doing within the context of this combined program. I think it's important to assess the reasonableness of Enbridge's costs if we knew how those costs were shared with the IESO.

C. FERNANDES: So, Ms. Girvan, I apologize, but we -- you know, the IESO's budget is not something under the purview of the OEB. So I think we stated that Enbridge is funding natural gas customers exclusively, and that's where the majority of the budget goes towards the incentives provided to natural gas customers.

D. O'LEARY: Julie, if I could help out here just to jump in and perhaps move things along. The IESO agreement does have some breakdown of sharing of -- or forecast costs. I only briefly looked at the agreement, so I may be misstating it, but I believe some of the -- some of the answers you're looking for will be available when the IESO agreement is filed. And if it is subject to confidentiality, those relevant sections, if you sign the undertaking, you would then be able to see them.

J. SHEPHERD: I wonder if I could jump in here, because this is of interest to us too. You know what you're planning to spend on this next year because it's in your application, and you know what the deal is with IESO as to the relative contributions the two of you will make; right?

C. FERNANDES: So I don't -- I think that last part, Mr. Shepherd, is where you're making a presupposition that isn't quite true. So I mentioned, number one, IESO's plans are IESO's plans. We haven't got together to try and combine our plans into -- you know, our individual plans under our individual approvals to try and combine them for '26 at this point in time.

And the other thing I mentioned is that the IESO hadn't historically been in the broader residential market, so -- and they've recently introduced, you know, beyond electricity going into other fuels based on very recent approvals that they've received. So I think I would say the -- you know, to be fair to the IESO, their forecast is -- doesn't have a lot of historical basis behind it, so it might be more variable or uncertain than potentially -- you know, Enbridge might have somewhat better information on that, and we've described some of our uncertainties.

J. SHEPHERD: For 2025, you have both Enbridge and IESO actuals and forecasts; right?

J. GIRVAN: You've got budgets for 2025.

C. FERNANDES: We've got budgets for 2025 on the Enbridge side and --

J. SHEPHERD: And you know what the IESO budget is as well because it's a joint program; right?

C. FERNANDES: We have their forecast.

J. SHEPHERD: Okay. So is there any expectation there will be a significant change between the ratio of your budget to their budget for next year? Do you have any information that would make you think that it's going to be significantly different?

C. FERNANDES: What I think is -- I'm saying, Mr. Shepherd, is that they've just recently introduced the other fuels, and there is no historical experience on that. So the forecast that is there today is, you know, best available, but it's likely going to change, and it could change significantly, which would change the ratio.

J. SHEPHERD: Okay.

C. FERNANDES: And so, you know, we haven't been in market very long.

J. SHEPHERD: But -- so here is why I'm struggling, because you're asking the Board to approve you spending a lot of money on a jointly delivered program, but a big part of the funding for that jointly delivered program, you say you can't tell the Board what it is. And I just don't understand why that would be okay. I mean, you must have some idea?

C. FERNANDES: So, Mr. Shepherd, we've asked the Board for approval for a budget. It's to the dollar in the evidence.

J. SHEPHERD: Yeah.

C. FERNANDES: We have uncertainties around our forecast, and the current framework has provisions for us under certain conditions to either transfer or overspend within that budgetary approval. We're not asking for anything that's different than that. The issue is that with the uncertainty, if there is any kind of underspend, it goes back to consumers through VA.

J. SHEPHERD: I wasn't asking about the DSM VA. I was asking about -- about how much you know about what IESO is going to spend on this jointly delivered program, and it sounds like you're saying you don't know anything. It just surprises me, and I'm asking you to confirm that that's your understanding. You don't know anything about what they're going to spend?

C. FERNANDES: So I think what I'm trying to get to is the materiality. If we go -- Ms. Adams, if you could pull up B-1-1. If you could scroll down.

D. JOHNSON: B-1-1, attachment 1.

J. SHEPHERD: Okay.

C. FERNANDES: So for the residential program, what we've asked for is the 86,602 --

J. SHEPHERD: Understood.

C. FERNANDES: -- shown in the top row, and that has been broken down into the various components of the program. I think what you're saying and where you're going to is about the administrative costs --

J. SHEPHERD: No, not at all -- well, I mean, Ms. Girvan may well be going there. But what I'm asking you for is -- you're asking the Board to approve $86.6 million for a jointly delivered program, and you're not telling the Board what IESO is contributing.

D. JOHNSON: Can you give us a moment, Mr. Shepherd.

J. SHEPHERD: Sure.

[Witness panel confers]

C. FERNANDES: So, Mr. Shepherd, in the opening remarks that I made, I thought I had made it clear that IESO is funding electric, propane, oil, and wood homes.

J. SHEPHERD: Yes.

C. FERNANDES: And Enbridge is funding natural gas homes. So what we're requesting is the $86 million to fund natural gas-heated homes. So the IESO funding is irrelevant to what we've asked the Board to approve.

D. JOHNSON: I think, Mr. Shepherd, and it occurs to me that you were actually not present for the opening remarks, or I don't know if you came in partway through so --

J. SHEPHERD: I did not.

D. JOHNSON: It is a big difference between how Canada Greener Homes work with the stacking versus this current HRS program, is what Mr. Fernandes is trying to explain. So that -- yes, there is a -- I think there is a couple incentives where there is a little bit of overlap, but they are -- they are jointly delivered, but the funding that we're requesting will go to natural gas ratepayers, and IESO's funding will fund the electric measures.

J. SHEPHERD: Understood. Okay. If that's all that you can give us, that's fine.

C. FERNANDES: I apologize, Mr. Shepherd. I'll probably just repeat it for your sake because it won't take very long. But in the opening statement -- and I'll read it back -- while reviewing and aligning rebate levels across all fuels, IESO has agreed to stacking of funding for a limited fuel efficiency measures for gas-heated homes. You can see that in C-2-1, table 1.

J. SHEPHERD: Yeah. Sorry, Mr. Fernandes. I've read the evidence. I know this already. So I -- I --

J. GIRVAN: Can I just interject. Sorry. I guess all I'm looking for is I think the Board -- just for Enbridge, I think the Board would be interested in making sure that the allocation of costs for a joint program between the IESO and Enbridge is fair. And if you can demonstrate that, that would be helpful, and that's really what I was looking for. Because they talked about the IESO doing call centre, but then you talked about Enbridge doing some delivery. So it's a matter of -- it is a joint program, and to the extent you can, you know, ensure that -- or at least convince us there is a fair allocation, then I would encourage you to do that.

C. FERNANDES: Okay. Ms. Girvan, that's helpful to understand the question better.

J. GIRVAN: Okay.

C. FERNANDES: The agreement will have a portion in there that basically speaks to your point. The IESO and Enbridge were both concerned with cross-subsidization between effectively the electric and the gas ratepayer. So we've done our best to forecast what those costs and cost sharing should look like, but it also has a provision for us to revisit that periodically and adjust, and I think you'll see that in the undertaking that's already been taken, if that -- will that suffice?

J. GIRVAN: Because -- yeah, and -- and I -- yeah. And I would add -- I would add that the IESO is also doing work they're calling now "EDSM," so there is an overlap there between their delivering electric programs. You've got this joint program, but it's not clear to me how that's all supposed to work. So to the extent you can address the issues of cross-subsidization, that would be helpful. Should I move on?

C. FERNANDES: Sure.

L. MURRAY: I'm just wondering -- sorry. I'm just wondering, Ms. Girvan, are you going to go into a new topic area, or are you almost done?

J. GIRVAN: Yeah -- well, no. Just -- let me just finish this one area, and then I can move on to something else, and then we can break.

Okay. Have you sought -- you've obviously got an arrangement with the IESO. In light of the sort of concern about the cost-effectiveness of this program, have you sought any more funding from the IESO, or do you feel that that would be some sort of a cross-subsidy?

C. FERNANDES: So the IESO, I think, would have to speak to their funding, but effectively, my understanding of it is their approvals for funding are for electric system-related items. And they have additional approvals for propane, oil, and wood or non-regulated fuels. They don't have approvals for specifically funding natural gas consumers or to reduce natural gas. The stacking of incentives that they have is based on the electric savings, not any gas savings. So I think the direction that they have presupposes that under the OEB, there will be natural gas DSM programming delivered by Enbridge. So they're not -- they're not trying to fund natural gas DSM.

J. GIRVAN: Okay. And one other question just along these lines. In terms of this sort of issue about cost-effectiveness, have you sought any more funding from NRCan? I mean, I know that it stopped, but have you gone back to them recently and asked for more funding?

D. JOHNSON: So just to be clear, the way that TRC is calculated, even if we had more incentive dollars flowing from NRCan, that actually wouldn't change the TRC because --

J. GIRVAN: Okay.

D. JOHNSON: -- the way TRC works is it looks at the incremental cost and whether part of that incremental cost comes from ourselves or the customer. It is the total incremental cost that gets used in the calculation for TRC.

J. GIRVAN: Okay. Thank you for that.

I'm not -- I'm not finished yet, Mr. Murray, so if you want to break for lunch now, that would be fine, but it's up to you.

L. MURRAY: Why don't -- are we looking at five minutes? Are we looking at, like --

J. GIRVAN: No, not five minutes.

L. MURRAY: Okay. Why don't we break for --

J. GIRVAN: Yeah. Thank you.

L. MURRAY: Why don't we break for -- why don't we break for lunch now and come back at 1:40.

J. GIRVAN: Okay. Thank you.

# --- Luncheon recess taken at 12:39 p.m.

# --- On resuming at 1:42 p.m.

L. MURRAY: Ms. Girvan, back to you and your questions for the Panel.

J. GIRVAN: Okay, great. I just have a few more areas, Panel. Just so that we're all clear, can you remind me what the role of the cost-effectiveness tests are that Enbridge uses in its DSM planning.

D. JOHNSON: Sorry. Did you say "the rule" or "the role"? I missed that.

J. GIRVAN: Role. Role.

D. JOHNSON: What is the role --

J. GIRVAN: Yeah.

D. JOHNSON: -- of the cost-effectiveness test?

J. GIRVAN: Yeah.

D. JOHNSON: So it's -- the Board has laid out that we should be conscious of the costs of the overall program. I'm not quite sure I understand your question.

J. GIRVAN: Well, isn't it to screen programs?

D. JOHNSON: Yes. Sorry. If that's what you're asking, correct.

J. GIRVAN: Yeah. And move forward with programs that are cost-effective; right?

D. JOHNSON: Correct. So there is -- there is an -- like, the -- the specific wording says that programs should be cost-effective, but it recognizes that there may be cases where programs are not cost-effective. And Enbridge should propose those based on their merits, and that's what we attempted to do here. But it does -- the wording does also say that the overall portfolio must be cost-effective, and we are forecasting that to be the case.

J. GIRVAN: Yeah. Okay. Thank you. And I'm just trying to understand the numbers. So from what I understand, the TRC+ test ratio in 2025 is expected to be 0.62 for the joint program. And without participants in the joint program with NRCan, it's supposed to be 0.75. Can you help me with the distinction between those two numbers?

D. JOHNSON: Sure, yeah. So basically, again, Mr. Fernandes alluded to that earlier, that the -- in 2026, we expect either no or virtually no participants in HER+. So in order to sort of give a better illustrative example, we've removed those participants from our 2025 forecast.

J. GIRVAN: And that increases the ratio?

D. JOHNSON: Yeah, effectively, they were -- they were a drag on the TRC, so removing them improved the overall cost-effectiveness of the residential program.

J. GIRVAN: And they're not there because they've already been paid their incentives?

C. FERNANDES: We expect that they will have been paid prior to the start of 2026.

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

Could you quickly turn to Exhibit B-1, tab 1, schedule 1, page 9.

C. FERNANDES: I'm sorry. That was B-1-1, page 9?

J. GIRVAN: Yeah. So -- sorry. I'm just -- this is just the -- really the same question is -- is they will no longer be part of the program in 2026, a very small number; right?

C. FERNANDES: Yeah. I would say immaterial.

J. GIRVAN: Okay. Okay.

Okay. So if you could turn to B-1, tab 1, schedule 1, attachment 1, page 1, please. So this is something I've had discussions with you in the past, and what I'm really looking for is I'm really looking for all of the costs that are funded through residential rates. And to me, it's a combination, and I'm going to give you a list, but you can help me if I've missed something. And then I'm going to want you to produce that, and I think you've done it for me in the past.

So I look at the residential program costs that are at the top of this list, the $86 million in 2026. Residential consumers through residential rates are also funding a portion of the low-income program; is that correct?

C. FERNANDES: That's correct.

D. JOHNSON: Yeah.

J. GIRVAN: Okay. And if we scroll down, I look at the building beyond code program and the residential savings by design. Is that funded by residential consumers?

D. JOHNSON: That's correct.

J. GIRVAN: Okay. And then there is a portion of the admin costs that are funded by residential consumers, the 12 million?

D. JOHNSON: Yeah, I would say we're probably drifting outside of the scope of residential programming, but, yes, there is a portion of the administrative costs that would support residential programming.

J. GIRVAN: Okay. And if you scroll down a bit further --

D. JOHNSON: Sorry. I apologize.

J. GIRVAN: Sorry?

D. JOHNSON: It would be paid for by residential customers, I think, was your actual question.

J. GIRVAN: Yeah. And keep scrolling down, and I see EM&V costs, and I see research and development costs. And I guess I would add to that annual shared savings amounts, which I think you're forecasting for 2026 to be in the range of 5.2 million or 22 percent of the overall incentive; is that correct?

D. JOHNSON: So I'll tackle the first part first. So the residential customers would also have a portion of the evaluation and research and development costs. That was your first question.

I didn't quite follow your second -- the shared savings? Sorry.

J. GIRVAN: Yeah, yeah, shared savings. So the payout of the shared savings mechanism is paid for by customers to the extent that you reach your targets. And I think I've seen --

D. JOHNSON: DSMI.

J. GIRVAN: Sorry?

D. JOHNSON: You're referring to the DSMI, the incentive mechanism for the company?

J. GIRVAN: Yeah, yeah.

D. JOHNSON: Okay.

J. GIRVAN: Yeah. I guess I've always called it "shared savings." I guess maybe it changed its name.

D. JOHNSON: Right, right. Yeah --

J. GIRVAN: Anyway, what I'm just looking at is I'm trying to get a -- I'm just trying to get a range here. I'm trying to see overall -- and as I said, it's something you've provided in the past -- the sort of total costs in 2026 rates that would be potentially funded by the residential rate classes through the DSM program. Can you provide that?

D. JOHNSON: So basically you're asking for what the rate allocation of the 2025 -- based on the 2025 budget, what the rate allocation would be to residential customers?

J. GIRVAN: Yeah.

D. JOHNSON: And you want to include --

J. GIRVAN: All of those --

D. JOHNSON: So our -- our default would not have included DSMI, but you're asking us to include that based on the forecast -- can I just for simplicity say on a forecast of 100 percent DSMI?

J. GIRVAN: Sure. My understanding is that residential consumers wouldn't pay the full $23 million. It might be something in the range of --

D. JOHNSON: Right. What I mean is we'll assume 100 percent achievement, and then the portions --

J. GIRVAN: Yes, sorry.

D. JOHNSON: -- will be paid by residential customers.

J. GIRVAN: Yeah, that's the assumption. And can I get that for '23, '24, '25, and '26?

D. JOHNSON: So for '23, '24, '25, '26 -- I'm just trying to think if there is any complications there. So for '25 and '26, I think we do it on the budget basis -- effectively the table that you're looking at today. But for '23 and '24, presumably you would want it on actuals achieved?

J. GIRVAN: Yes.

D. JOHNSON: Okay. Just one second --

J. GIRVAN: I'm just trying to see over time --

D. JOHNSON: Sorry, give me one moment, Julie.

J. GIRVAN: Sorry.

[Witness panel confers]

D. JOHNSON: So we were just discussing just the effort involved of doing it on the actuals versus budget. Given you're okay for '25 and '26 on budget, would you be okay for '3 and '4? That would make it much simpler.

J. GIRVAN: Sure. Sure, that's fine.

D. JOHNSON: Okay. So all of them will be on a budget basis.

J. GIRVAN: Yeah, okay. And in addition to that, can you also provide me for each of those years the number of residential participants in your program?

D. JOHNSON: So just total number of participants across all measures for each year?

J. GIRVAN: Yeah.

D. JOHNSON: Okay. So, yeah, we can do that. The only thing I will say is we what just agreed is that we will be doing all the rate impact that you have asked for on a budget basis plus assuming 100 percent of DSMI, whereas participation, we would only have for '23 and '24, that would be on actuals. So it will be a little bit of apples and oranges --

J. GIRVAN: Okay. But -- yeah, do you -- do you -- sorry. But you have a forecast of participants in the residential program, right for --

D. JOHNSON: For '25 and -- yeah.

J. GIRVAN: Okay. That would be helpful.

D. JOHNSON: Okay.

J. GIRVAN: And --

L. MURRAY: And before --

J. GIRVAN: -- also just along these --

D. JOHNSON: Julie, I think --

J. GIRVAN: Sorry, we need an undertaking.

D. JOHNSON: -- you want to record that.

L. MURRAY: Yes. Before we move on, let's record that. That collectively will be Undertaking JT1.7.

UNDERTAKING JT1.7: TO PROVIDE A FORECAST OF PARTICIPANTS IN THE RESIDENTIAL PROGRAM FOR 2025

J. GIRVAN: Does the company actually undertake, for example, an analysis of looking at the rate impacts on particular classes of the DSM programs? I know in the past there's always been a guide where you look at the impacts in your DSM programs overall generally, but do you ever look at, like, for example, the impacts specifically on the residential rate classes?

D. JOHNSON: I think I need a bit more context to your question --

J. GIRVAN: Okay. So we've got these -- we've got this -- we've got this amount in 2026 that you're seeking to recover from the residential rate classes. And I realize there's probably some other customers in there that aren't necessarily residential, but let's for ballpark say residential customer classes. Does the company do an analysis of what that rate impact is to those customers? Is it one of your tools that you use?

D. JOHNSON: Yes. So, again, I think my -- I'm unclear if you're asking about this in the context of the rollover, which, you know, we would have done that as part of the original application, and given it's a rollover, you know, it would be very similar. For our 2027 application -- or when we file our '26 application, when we update our '27 application, that is something we would look to do as well.

J. GIRVAN: Sure. Can you give me the number -- the rate impact for the 2026.

D. JOHNSON: For the -- for which year?

J. GIRVAN: 2026.

D. JOHNSON: For -- I thought that's what we just agreed to do.

J. GIRVAN: You agreed to give me the number, the sort of overall cost, but I would like the actual rate impact.

D. JOHNSON: Oh, I see. So the -- the --

J. GIRVAN: You can --

D. JOHNSON: -- amount. You want the total dollar amount, and then you want it as a -- say, a monthly annual charge to ratepayers?

J. GIRVAN: Yeah, yeah.

D. JOHNSON: Okay. Yeah.

J. SHEPHERD: I'm -- this was going to be my first question, so I'm just going to jump in here. In your last application, 2021-0002, in your draft rate order, there is a table B-1 of your draft rate order, which was approved by the Board, which is the full breakdown of rate and bill impacts of the approved plan. You don't need to bring that up. It's a standard document. I'm sure you've seen it before.

I wonder if you could produce the same thing for your 2026 proposal. It breaks it down -- you're going to have to do it anyway. And it breaks it down entirely by how much are -- is fixed, how much is variable, what's the impact on the typical bill, all that stuff, it's all broken down in a standard format. I wonder if you can provide that.

D. O'LEARY: Jay, can I ask, are you limiting that request to just the residential program, or are you looking for a breakdown of all of the various programs?

J. SHEPHERD: Well, since my clients pay a bunch of residential costs, it's easier if you just do the whole thing. Since you already have the model; right? Like, this is a standard model we use every year that breaks down your DSM impacts. So what I'm asking you to do -- you're going to have to do it eventually anyway in this application.

D. O'LEARY: Well, I appreciate that it may be done for a draft rate order purposes, but we are looking at a limited amount of time to provide these undertakings, and the Board did prescribe that this technical conference was only to deal with residential program cost-effectiveness. So I'm just trying to limit the number of undertakings. Is it something that is really needed now, or can it wait for the DRO?

J. SHEPHERD: Well, yeah, we're just going to say in our submissions that they shouldn't approve it because they don't know what the impacts are on the customers.

D. O'LEARY: But we just gave an undertaking to provide the impact on the residential ratepayers.

J. SHEPHERD: So you think that the rest of the customers should have the programs approved without any impact analysis?

D. O'LEARY: Well, that's what the fact the procedural order, as I interpret it, says, that this is limited to cost-effectiveness issues in respect to the residential program.

J. SHEPHERD: That -- and that's fine. If that's -- if you want to refuse on that basis, you're free to do so. I'm telling you this is something that the Board needs to see before they can decide on your rollover.

C. FERNANDES: Can I ask something because maybe it might be helpful. But given that we've proposed a simple rollover with just an inflationary increase, does not the previous draft rate order provide a strong indication of exactly what it looks like?

J. SHEPHERD: No, because you've shifted a whole bunch of funds between different programs and because you've changed in your rebasing application how you charge certain of the programs to customers. So the differences are significant, and we know that already.

C. FERNANDES: So I don't think the rate harmonization has been approved yet, has it?

J. SHEPHERD: No, but you have a proposal, and you know what it's supposed to be. Right now you're proposing $200 million, and you're proposing exactly who's going to pay for it. I'm asking you to do your standard calculation of who's going to pay for that $200 million.

D. O'LEARY: Jay, we'll take it under advisement, and we'll consider how difficult it is under the circumstances, and we'll advise.

J. SHEPHERD: Can I get an undertaking number for that, please?

L. MURRAY: We will. That is JT1.8.

J. SHEPHERD: Thank you.

UNDERTAKING JT1.8: PROVIDE A FULL BREAKDOWN OF THE 2026 PROPOSAL (UNDER ADVISEMENT)

J. GIRVAN: Sorry, Mr. Johnson, I just wanted to go back to my undertaking. Is it possible for 2023 and '24 to provide actual spending levels? You want -- you said you want to do the forecast, but why -- what -- can you not provide both?

D. JOHNSON: Yeah, it's just the -- if we do it on a budget basis, we already have that. So it's just an effort thing. That's why I was asking if you're okay with it on a budget basis. It just reduces --

J. GIRVAN: But you have the actuals.

D. JOHNSON: We -- yeah. It is certainly possible to go on the actuals. It will just be more work.

J. GIRVAN: Okay. I would like both, if that's possible. Thanks.

Okay. I just have one other area of questions, Mr. Murray, so I'll just be brief. For the context of this residential program, how do you define a free rider?

D. JOHNSON: So a free rider is a participant who would have undertaken the measure without the program's influence.

J. GIRVAN: Okay. So if I plan to renovate my house and put in, you know, impacts on the building envelope like insulation, windows, doors, ceiling, et cetera, and I've decided to do that, and I say, well, hm, maybe I should go and see where I can get some money to assist in my renovation, maybe I'll go to Enbridge, is that considered a free rider? I've already made a decision.

C. FERNANDES: It depends, Ms. Girvan. So the intent of the program and the example, I think, that you're giving would be something like upgrading windows. The program would encourage you to put a higher level of window than you would have put in otherwise. So it's not seeking to influence you to necessarily change your windows, it's influencing you to say you were planning on putting in double pane to go to triple pane. So the --

J. GIRVAN: But how do you --

C. FERNANDES: So the way the program is designed is that the eligibility for the products are higher than what would be the standard replacement in the market. So you wouldn't get --

J. GIRVAN: Okay. So what's the --

C. FERNANDES: You wouldn't get any --

J. GIRVAN: What's the free -- what's the free ridership rate for this program?

D. JOHNSON: So there's different values by measure --

J. GIRVAN: Okay.

D. JOHNSON: -- and that's in --

C. FERNANDES: By offering.

D. JOHNSON: Sorry. By offering, thank you. And that's in D-2-2 -- sorry, D-1-1 --

J. GIRVAN: D-2-2?

D. JOHNSON: -- apologies. D-1-1, attachment 1.

J. GIRVAN: D-1-1, okay. Okay. And when was that free ridership rate established by Enbridge?

D. JOHNSON: So there is different values in there, and those values -- some of them have been around for a long, long time, sort of probably established in a proceeding -- probably a few proceedings ago when the programs -- in some cases when those particular offerings were originally launched.

J. GIRVAN: Okay. Do you plan to study that at all going forward in terms of evaluating the free ridership rate with the current program?

D. JOHNSON: So evaluation of free ridership or net to gross is actually at the purview of the Ontario Energy Board, so that would really be a question for them.

J. GIRVAN: Okay. And my last question is: Have you done any customer surveys regarding DSM, particularly with the -- within the residential class?

C. FERNANDES: We do do surveys of our participants, but was your question directed more broadly?

J. GIRVAN: Yes. So potentially asking nonparticipants how they feel about funding DSM programs. Have you ever done any of that analysis?

C. FERNANDES: I believe there might be, but it's quite distant.

J. GIRVAN: Okay. All right. Thank you. Those are my questions.

D. JOHNSON: Sorry. Just correcting Mr. Fernandes there, and he, I don't think, was involved in this. But, yeah, we did do a survey, a customer survey, not that long ago, I want to say maybe a couple years ago, getting customer impressions on funding for conservation.

J. GIRVAN: Okay. Can you provide that?

D. JOHNSON: Yeah. I don't see why we couldn't.

[Witness panel confers]

L. MURRAY: That will be Undertaking JT1.9.

UNDERTAKING JT1.9: TO PROVIDE CUSTOMER SURVEY REGARDING FUNDING FOR CONSERVATION

J. GIRVAN: Great. Thank you. Those are my questions. Thank you, gentlemen.

L. MURRAY: Thank you very much, Ms. Girvan.

Next on the list is the School Energy Coalition. Mr. Shepherd, over to you.

# EXAMINATION BY J. SHEPHERD:

J. SHEPHERD: I wonder if you could turn to B-1-1, page 16. So at the bottom of this page -- or further down the page, you say you're not proposing to continue the end-of-term incentive, which was a target of a 1.5 percent reduction from 2022 in actual throughput, and what you actually had was a 5.1 percent increase relative to 2022. What I'd like you to do is two things; first of all, I wonder if you could break that down by the various components of your DSM program, so how much -- what was the difference in throughput for residential, for commercial, for industrial, et cetera, so that we can see whether the residential programs are, in fact, achieving the sorts of results that the Board was looking for in that or whether they're not. Can you give us that breakdown?

D. O'LEARY: Mr. Shepherd, it's Dennis O'Leary, Jay. Can you help me out in understanding how that request relates to the cost-effectiveness of the residential program?

J. SHEPHERD: Yes. If the residential programs are not resulting in a decline in natural gas use, which is something the Board said was an important thing for them, then that's relevant to whether a program that is not cost-effective, by your own evidence, should continue.

D. O'LEARY: Well, you're welcome to make whatever submissions you like, but I'm still trying to understand for the purposes of this technical conference how that's an appropriate question?

J. SHEPHERD: So it seems self-evident to me that -- you should want to put this information forward because probably residential is the only one that's gone down. And so you should want to present this to show that your $100 million-plus spending on residential programs is justified. But if you don't -- if you want to refuse it, you can.

D. JOHNSON: I think, Mr. --

D. O'LEARY: Go ahead.

D. JOHNSON: Mr. Shepherd, my sense of that is without having looked at what you're asking for, is this is a far more complicated discussion that really belongs in a future -- in the 2027 proceeding.

J. SHEPHERD: So -- sorry. You don't know what your throughput change is in residential; or you do, and you don't want to tell anybody?

D. JOHNSON: I think you're making statements and assumptions that require a lot more discussion on what's happening. You know, there's a whole bunch of factors, like what's happening in terms of population growth, et cetera, how does that factor in. So I would struggle on even how to answer your question.

C. FERNANDES: And 2025 is not complete, so we don't actually have the information as the Board approved the end-of-term natural gas reduction incentive.

J. SHEPHERD: Sorry? I -- help me understand. What did you just say?

C. FERNANDES: 2025 is not complete. We can't possibly have the consumption from 2025.

J. SHEPHERD: You have a 5.1 percent figure. You got it from somewhere. It's your figure. It's not mine.

C. FERNANDES: That was relative to 2024, not '25.

J. SHEPHERD: And? So you can't break that down by category?

D. O'LEARY: Mr. Shepherd, we're not prepared to do it because we don't believe that that's what the Board has asked this technical conference to deal with today. So the answer is no.

J. SHEPHERD: Okay. So I'm going to ask you, then, to undertake to provide any internal documents that analyze the company's failure to meet the end-of-term incentive, internal documents that analyze that failure and refer specifically to the contribution of the residential programs in that failure.

D. O'LEARY: Again, it's our view that what you're requesting is out of scope for the purposes of this technical conference; and, therefore, we're not prepared to give such an undertaking.

J. SHEPHERD: All right.

So can you move to C-2-1, page 8, please. Now, this relates to your joint program, right, the jointly delivered -- the one-window program; right? Okay. And I'm looking at ground source heat pump systems, and your incentive is $3,000, and the IESO's incentive is $12,000. Why is that?

C. FERNANDES: Sorry. I can't speak to how IESO determined its incentives. They operate under a separate framework and separate budgetary approvals.

J. SHEPHERD: So -- sorry. So are you saying that you haven't -- realizing that they're giving four times the incentive, you haven't tried to figure out why their incentive is higher than yours and whether yours is correct?

C. FERNANDES: Actually, that's correct. We haven't tried to determine that, Mr. Shepherd, because there's not -- in our experience having provided incentives for ground source heat pumps longer, we haven't seen material uptake. So it's actually not really all that relevant with respect to what we were asked to come here to speak to today. It's not going to change the cost-effectiveness of the program in any material way, regardless of what that incentive is.

J. SHEPHERD: Well, does the incentive affect the cost-effectiveness? How does it affect the cost-effectiveness?

C. FERNANDES: It does not because it's the incremental cost.

J. SHEPHERD: Exactly. So this is a -- the ground source heat pumps cost $50,000 or more, right, for the -- for a system?

C. FERNANDES: I can't say that to be true, Mr. Shepherd. I know that you've stated in the past that you've installed one so --

J. SHEPHERD: Yes. I'm very familiar with it, but I'm asking you the question. You don't know how much a ground source heat pump system costs?

C. FERNANDES: It actually doesn't have that much to do with it, Mr. Shepherd. It really comes down to any system that's replacing the furnace or the space heating. And even if it's doing space heating and water heating, there is a limited amount of gas that it can save. So from a program administrator point of view or a PAC point of view, there is only so much we should be offering to acquire those savings or it becomes cost ineffective from that acquisition perspective.

J. SHEPHERD: So you're saying that the IESO program is cost-ineffective?

C. FERNANDES: I never said that, Mr. Shepherd.

J. SHEPHERD: Well, no. I'm trying to understand. I'm trying to understand what you're saying.

C. FERNANDES: I said I can't speak to the IESO program. They're operating under a different framework, different budgetary approvals, and they have different fuels with different fuel costs. So I can't speak to that.

J. SHEPHERD: All right. Can you go to -- and, again, you've had a whole long discussion about this already, so I'll be quick. Can you go to C-2-2, page 9. So you talk on this page a number of times about how -- how cold climate air source heat pumps are not cost-effective anymore because the federal carbon charge is gone; right? And so that means that your ratios, instead of being four times as expensive -- or instead of being two -- electricity being two times as expensive, it's now four times as expensive as gas; right?

D. JOHNSON: Mr. Shepherd, sorry to interrupt. When you say "cost-effective," can you just clarify. Because sometimes the term "cost-effective" gets used -- or most of the time --

J. SHEPHERD: Oh, I --

D. JOHNSON: -- I think you had --

J. SHEPHERD: Okay. So you're absolutely right. What I mean is cost-effective for the consumer, for your customer.

C. FERNANDES: Okay. That was a major theme throughout?

J. SHEPHERD: Yes.

C. FERNANDES: C-2-2 is really saying that we have forecast uncertainty around how consumers may react because the economics from a consumer point of view has been substantially impacted.

J. SHEPHERD: So -- and -- and -- and what you've said -- I'm quoting from your evidence somewhere -- the consumer operational economics of electric heat pumps have declined because of the end of the FCC; right?

C. FERNANDES: Yes. If you're fuel switching from natural gas to electricity, and now the -- the cost of gas has gone down and the electricity has stayed constant, that changes the economics.

J. SHEPHERD: Now, your calculations don't include getting off natural gas entirely; right? They only include the variable costs, not the fixed costs? I think that's what you said to Mr. Elson earlier?

C. FERNANDES: Yeah, that is true, and there is a reason behind that. In our experience in offering heat pumps through our programming, various iterations of our programming over the last several years, what we have seen is the vast majority of consumers retain a gas furnace. So they're using a hybrid system for space heating, and then --

J. SHEPHERD: Well, in fact, you sell hybrid systems; right?

C. FERNANDES: Pardon me?

J. SHEPHERD: Enbridge actually promotes hybrid systems; right? We've --

C. FERNANDES: So I would like -- I would like to finish what I was saying, Mr. Shepherd --

J. SHEPHERD: Go ahead.

C. FERNANDES: -- before you move on.

So in our experience over the last several years, we found the vast majority of consumers are retaining a gas furnace; and, therefore, they're running a hybrid system. And that -- that is the experience we had through the entirety of this last plan. And when I say "vast majority," I mean I'm well over 90, probably over 95 percent. So in terms of being helpful for interested parties and the OEB, that's the most relevant details, that the consumer uptake that we've seen through our programs is largely -- I mean, almost exclusively hybrid systems.

J. SHEPHERD: Okay. So you -- do you not have the comparison of costs without -- when people disconnect entirely?

C. FERNANDES: Sorry. Which comparison of costs?

J. SHEPHERD: You do the comparison between a hybrid system and a gas-only system, and you say hybrid is going to be more expensive because the federal carbon charge is gone; right?

C. FERNANDES: We included that because the vast majority of our historical participation, that's what's relevant. Someone who removes the gas furnace and has the intention of disconnecting from the system, the economics are different, but they are minimal in terms of our experience.

J. SHEPHERD: Okay. So do you have that -- those economics, the economics of the person who disconnects?

C. FERNANDES: We -- not in its entirety because it depends on the cost of them -- you know, what we're talking about here in the programming is a heat pump that would offset some or all of their space heating. For them to disconnect, they would have to remove all of their gas appliances, and that involves other costs.

J. SHEPHERD: Okay.

C. FERNANDES: So --

J. SHEPHERD: So you haven't done that comparison? See, I -- I ask that because we've seen evidence from one of your affiliates, Enbridge Sustain, which has details about that comparison. So I presume you have that information. I'm just asking you whether you can provide it.

C. FERNANDES: Sustain is an affiliate, but I have not seen any information that they have provided.

J. SHEPHERD: Okay. Then I -- I -- you talked about this, I think, with Mr. Elson. I came in at the back end of that discussion. So if you've already talked about this in detail, just ignore me -- not really.

The economics that you use assume a value of carbon of zero because the only value of carbon is the FCC; right? That's the only value of carbon you had before, and now the value of carbon is zero; right?

C. FERNANDES: So, Mr. Shepherd, just to clarify again, cost-effectiveness versus consumer economics. If you're referring to consumer economics, they no longer pay the federal carbon charge, so that's the appropriate number to use.

J. SHEPHERD: Okay. Although you do have a 15 percent adder in the TRC; right?

C. FERNANDES: The OEB has that in their framework, yes.

J. SHEPHERD: And that's part of your cost-effectiveness analysis; right?

C. FERNANDES: Which is different from consumer economics.

J. SHEPHERD: Of course it is. Understood. And when you do the cost-effectiveness analysis, you assume the 15 percent and therefore zero cost of carbon; right?

D. JOHNSON: I think, if I understood what you were saying, I just want to make sure because -- yes, we applied a 15 percent adder. And, correct, we apply zero for the federal cost of carbon.

J. SHEPHERD: Okay --

C. FERNANDES: But that's because the framework says to use the federal carbon charge, and the federal carbon charge has been set to zero.

J. SHEPHERD: Indeed, indeed. So you're not actually saying that the value of carbon is zero. You're saying that the framework ends up with a zero carbon charge; right?

D. JOHNSON: My discussion with Mr. Elson earlier was that we think that discussion -- and the Board themselves have said that discussion belongs in the 2027 application.

J. SHEPHERD: Okay. Then my last question is with respect to C-2-2, attachment 1. This is your disclaimer. And I take it that the information in this assumes that the customer is retaining their natural gas connection as you've said almost every customer does; right?

C. FERNANDES: That's been our historical experience.

J. SHEPHERD: And so this disclaimer gives a bunch of numbers that include retaining your natural gas connection; right?

C. FERNANDES: Ms. Adams, if you could scroll down a little bit further towards the table near the end. The top of this table, there is a note that says:

"Fixed monthly charges for electricity and natural gas are not included in this comparison."[as read]

J. SHEPHERD: Okay. Well, but fixed monthly charges for electricity would not be relevant, would they?

C. FERNANDES: Well, it depends on what you're trying to do, Mr. Shepherd. If you're trying to give a complete picture for a specific instance, then I think all of the costs are relevant.

J. SHEPHERD: Well, yeah, except that fixed monthly charges for electricity will be spent regardless of whether they're using a heat pump or gas or anything else. They're still going to have an electrical connection, they're still going to pay those charges; right?

C. FERNANDES: Sure. I think --

J. SHEPHERD: So they're not incremental to anything, they're not part of this calculation?

C. FERNANDES: Yeah, I think you're making the implicit assumption they're going to stay connected to the electric system, which is reasonable.

J. SHEPHERD: Okay. All right. So --

C. FERNANDES: All of the costs are relevant, and that includes the cost for the consumer to invest in the equipment required to make that change.

J. SHEPHERD: No, of course. Agreed 100 percent.

C. FERNANDES: Yeah.

J. SHEPHERD: Then my last question is you have a website -- this is on your website; right? It is a pull-down on your website?

C. FERNANDES: On the HomeRenovationSavings.ca website.

J. SHEPHERD: Awesome. You have data on page views on your website; right? On the Home Renovation website? It's standard practice. I'm sure you do; right?

C. FERNANDES: Sorry, you cut out there for a little bit.

J. SHEPHERD: You have data on the page views on your Home Renovation website; right?

C. FERNANDES: I believe we do.

J. SHEPHERD: Okay. Can you undertake to provide the data on the number of page views for this disclaimer? It should be something straightforward. It's a page.

D. O'LEARY: Well, again, can you help me, Jay. How is that relevant to the issue of the cost-effectiveness of the residential program?

J. SHEPHERD: Because the residential program will be less cost-effective if you're downplaying the benefits that customers get, and the number of people that see this disclaimer, which is basically "don't buy this product," will affect the cost-effectiveness of the program. I'm sure Mr. Fernandes will agree that it's part of your uncertainty; right?

C. FERNANDES: I don't think you should be so certain, Mr. Shepherd. Where this is actually located is several page clicks down on the heat pumps, and then you have to actually click on an expansion to even see this information. So I'm --

J. SHEPHERD: And that's exactly -- I'm sorry.

C. FERNANDES: So I'm not -- I'm not sure that we even can track who expanded the little plus sign to make this visible. We might be able to track website visits to that particular page, but I have no idea whether we can actually track who opened up the disclaimer nor who actually read it --

D. O'LEARY: And -- and, Mr. Shepherd, we also question how the Board would find any of that relevant. You know, you may make a submission on something, but that doesn't mean the fact that there's been 100 or 1,000 people that have accessed the page has had any impact on their decision making or not. So I just don't see how it's relevant, so --

J. SHEPHERD: Okay, hang on --

D. O'LEARY: -- going to deny that undertaking.

J. SHEPHERD: Hang on a second, Mr. O'Leary. The standard programs that you use to count page views will count this, will count this exact page, the pull down. All I'm asking you to do is to go back and see if that is correct, and if it is, what the number is.

And I think you're right, Mr. Fernandes, that what you're going to find is that almost nobody has looked at this page, that it's a page that you put in there because your lawyer said, "You better put this in here," but that nobody is actually reading it. In which case, we don't have to spend a lot of time arguing about whether you're downselling heat pumps, which otherwise you're going to get a whole bunch of stuff about; right? But if nobody is looking at it, then we don't --

D. O'LEARY: If the lawyers told him to put it in there, then it is a privileged communication.

J. SHEPHERD: No, it's not, Mr. O'Leary. Come on.

D. O'LEARY: We're not -- we're not going to take the time and effort to go back and try and pull up the number of times that this website and/or that page have been accessed. So it's a refusal.

J. SHEPHERD: All right. Thank you. Those are all my questions.

L. MURRAY: Thank you very much, Mr. Shepherd.

Next on the list, I believe, is Ms. DeMarco. Over to you.

L. DeMARCO: Thank you very much, Mr. Murray. Thank you, panel.

# EXAMINATION BY L. DeMARCO:

L. DeMARCO: I have two areas I would like to ask some questions on. The first is in relation to clarifications pertaining to some of the calculations relating to the residential program, and the second is understanding potential program overlap, particularly as it relates to Indigenous customers and the low-income program and the residential program, how they might overlap.

So if I can start first with Exhibit B-1, tab 1, section 1 at paragraph -- sorry, page 10, paragraph 30. And there, you indicate that:

"One factor that Enbridge Gas expects it will need to be considered -- will need to be considered in a comprehensive review of the residential program is the Government of Canada's decision to set FCC to zero effective rate ..."[as read].

Presumably that is just the consumer levy.

"... as well as the consumer operational economics of electric heat pumps. And realistically, a comprehensive review of these and other factors related to the residential program cannot be completed ..."[as read]

So I just want to understand because you have got a section in your evidence on consumer operational economics. My understanding is that that is theoretical, not actual evidence based on consumer experience of their operational economics. Do I have that right?

C. FERNANDES: Generally, that's correct. What we had said in the evidence and previously in this technical conference was we have a large amount of forecast uncertainty. The federal carbon charge has just recently been set to zero. The disclaimer that Mr. Shepherd had up just recently and others had queried on had only been put on the website very recently. So to see what impacts there are on consumer uptake from natural gas customers to see how much that changes their uptake or interest in participating in the program is unknown to us at this point in time.

L. DeMARCO: Would you agree with me that consumer uptake is a little bit different than consumer operational experience?

C. FERNANDES: So that was part of what was in C-2-2. We mentioned specifically that consumers that were economically focused would likely have a significant impact, but that's not necessarily all consumers. So I want to be clear on that part. So we don't know, you know, what the impact on participation is going to be, and that's a challenge to forecast.

But we also have the second tier to that is largely around how -- for those consumers that do choose to install a heat pump, how are they going to operate it. And that's largely under what we're asked to look at in this technical conference, the cost-effectiveness will be driven by that change-over temperature. So I don't know if you had a chance to talk -- to listen in with Mr. Elson. We talked a lot about that this morning.

L. DeMARCO: Yeah, I was on the line the whole time. Thank you.

So is it fair to say that that whole operational -- customer operational experience is -- there is no evidence on the whole [audio dropout] -- in the evidence now; is that right?

C. FERNANDES: You cut out there for a few seconds, Ms. DeMarco, but I think that's literally what we're saying. If you want to boil it down to the factors, when we look at DSM, it's participant uptake and then the amount of savings per participant, and those factors are both uncertain in our forecast.

L. DeMARCO: Thank you very much. That's great.

I have a question in relation to the actual cost-effectiveness exhibits, and those are really in and around Exhibit C, tab 2, and the related schedules. Fair to say that the impact of announced tariffs is not reflected in those schedules?

D. JOHNSON: Correct. I mean, depending on what you mean by that. Yeah, we have not forecast or we don't know yet the impacts of some of those discussions around tariffs.

L. DeMARCO: So it would be very useful for us to better understand the anticipated impacts applicable to natural gas that's transported from Canada through Alliance Vector into the U.S. and back into Canada. So if there is any estimates, I wonder if you would undertake to provide those.

D. JOHNSON: I don't think either of us would have knowledge of that.

L. DeMARCO: Can I ask you to undertake to inquire as to whether or not that's been undertaken, particularly as it relates to this residential program.

D. O'LEARY: I'm going to, if I can, Lisa, suggest that what you're asking for is something that's well beyond the scope of this technical conference, and it is all very hypothetical. The tariff situation, as we know, is very uncertain at this point in time. And you would get only a series of assumptions and guesses as to what's going to happen. I don't think that's of any -- our view is that it's -- would be of no benefit to the Board in making any determinations in this proceeding --

L. DeMARCO: I would gently -- gently push back, Mr. O'Leary, in terms of the --

D. O'LEARY: If you will.

L. DeMARCO: -- cost comparisons between the natural gas assumptions and the related announced tariffs pertaining particularly to energy would be very beneficial, I think, for the Board to understand, at least ranges, so they would be more in a position to accurately compare the associated costs.

D. O'LEARY: I think you have our response.

L. DeMARCO: We'll take it up later.

D. O'LEARY: Sure.

L. DeMARCO: In terms of Exhibit B-1-1-1, table 3, paragraph 47, just a clarification there in terms of the end-of-term natural gas incentive. My understanding is that that is not part of this application at all affecting either the residential program or anything else; is that fair?

D. JOHNSON: Yeah, so I think what we've stated is we are not proposing to extend the end-of-term natural gas reduction incentive. We didn't propose it initially, so we simply didn't know how to propose to extend it. Everything else we're proposing is a mechanical extension of the plan. We, I think, specifically stated at the -- if you go down to the next page, at paragraph 49, we sort of acknowledged that the Board originally established this so it -- they may continue to do something here, but we didn't know how to extend it, and so we're leaving that in the hands of the Board or, I suppose, other parties to provide submission.

L. DeMARCO: So it may be part of the ask in this application?

D. JOHNSON: It's not part of our ask, I guess, is what I want to clarify there.

L. DeMARCO: So unless an intervenor asks you to include this incentive, your understanding is that it's not included?

D. JOHNSON: That would be our expectation.

L. DeMARCO: Okay. That's helpful. Thank you.

In relation to C-2, tab 2, schedule 1 -- sorry -- schedule 2, page 1, paragraphs 3 and 4 -- yeah, if you go down to paragraph 4, the understanding here is that the variable price ratio of electricity to natural gas -- going on to paragraph 5 there -- is based on an energetic basis, which, as I understand it -- and help me out here -- is a conversion of a kilowatt hour to an MMBtu; is that right?

C. FERNANDES: Conceptually, yes, but not how we did it. We converted m3 of natural gas with its price through a heat value to kilowatt hours equivalency so that -- you're simply just trying to take the different fuels and put them in common units with the conversion of the price -- variable price.

L. DeMARCO: You were anticipating my question, Mr. Fernandes. Can you undertake to provide us with a sample calculation of how this is done and the assumptions that are used in terms of the energy density and the related parameters that you plug into that calculation.

C. FERNANDES: Yeah, I think most of the background of description of how is actually provided in the section, but we'll provide the example, if that is helpful.

L. DeMARCO: I might be a little thick, because I read the how and I couldn't get through the actual attributing numbers to the how. So it would be very beneficial, I think, and might go a long way to helping with the understanding of that.

C. FERNANDES: I think we could provide that, Mr. Murray.

L. DeMARCO: And to --

L. MURRAY: Before --

C. FERNANDES: I think Mr. Murray has to mark it.

L. MURRAY: I need -- I need to give it a number before we move on. We'll mark that as JT1.10.

L. DeMARCO: Thank you.

C. FERNANDES: Thank you.

UNDERTAKING JT1.10: TO PROVIDE A SAMPLE CALCULATION AND THE ASSUMPTIONS THAT ARE USED IN TERMS OF THE ENERGY DENSITY AND THE RELATED PARAMETERS

L. DeMARCO: The tab 2, schedule 2, page 2, footnote 1 at the bottom of that page, it refers to the Exhibit C, tab 2, schedule 2, page 2. It includes two -- the numbers including only fixed energy costs or capital costs. And what else -- help me here -- would be included to do an accurate comparison? Very specifically, are distribution costs excluded from that?

C. FERNANDES: Can you provide the reference so Ms. Adams can have it up on screen?

L. DeMARCO: It starts at Exhibit C, tab 2, schedule 2, page 2, at footnote 1. And it says:

"The variable price ratio includes variable energy costs only."[as read]

So I want to understand exactly what is included in variable energy costs, and it does not include fixed energy costs or any capital associated with using the energy source. And I also want to understand exactly what's excluded.

C. FERNANDES: Okay. The variable price ratio of electricity to gas only includes variable energy prices. When we start talking about fixed energy costs, that would be in a fuel-switching scenario, referring to fixed monthly charges. So if a consumer is currently paying both an electric and a gas bill, if they were to fully switch off of gas to electricity, they wouldn't just save the variable charges on their bill; they would save the fixed charges.

L. DeMARCO: So as I understand that, in layman's terms, we're looking at only the commodity charges, the electron versus the MMBTU. We're not looking at the Enbridge distribution charges versus Toronto Hydro distribution charges; is that right?

C. FERNANDES: Correct. If there is a fixed monthly charge of $25 for Toronto Hydro and 26 -- or whatever the numbers are for Enbridge, that's not being looked at because the -- as I had the discussion with Mr. Shepherd, our experience is the vast majority of consumers are not disconnecting from the gas system. So it doesn't make sense to include that in that type of a scenario. If they are switching, then the consumer economics should include all costs, but it would also need to include all the costs of the capital or equipment upgrades required to switch. So you don't just get a heat pump; you need to look at your water heater and any other items that you would have within that home.

D. JOHNSON: Can I just provide one additional point of clarification, Ms. DeMarco. You mentioned just commodity costs --

L. DeMARCO: Just before -- just before you do, can I just follow up on that point because I don't want to lose the thought. In terms of that consumer operational experience, we don't -- you don't have actual data of the temperatures between which consumers switch on, switch off, use, don't use the heat pump versus the backup gas system?

C. FERNANDES: So we don't have actuals. But in our Home Renovation Savings program, which just launched in January, we're reliant on an HVAC contractor network. So when moving that to the prescriptive type of programming, the HVAC contractors actually enter the applications in on behalf of the participants. We are asking and trying to collect what the HVAC contractors state the initial installation change-over temperature is, and our plan is that is what would be used, along with the prescriptive subdoc, which we're going to submit and have approved through the EAC to claim the savings for the program. So that's where we're going to get that information.

L. DeMARCO: I think you already have undertaken to provide that document when available. Do I have that right, the HVAC contractors switching assumptions?

C. FERNANDES: So there's two things in there, Ms. DeMarco. So the TRM subdocument, once approved, would go on the public record. That's pretty standard process. When we get to the end of a fiscal period for our DSM programs, we would submit all of the information to claim our savings, and that would go into our annual report and also into an evaluation contractor that is contracted by the OEB. And they would review all of the savings and items that -- from our DSM programs and make any changes through that evaluation process.

L. DeMARCO: That's a little different than what I thought. I wonder if you can undertake to provide the HVAC data that you are now relying upon?

C. FERNANDES: So -- so we stated previously that our assumption for the purposes of the forecast was that consumers would, on average, set their temperature at 6 degrees Celsius.

L. DeMARCO: Sorry. They're two different things. You've got a series of assumptions, which I understand.

C. FERNANDES: Yeah.

L. DeMARCO: And then you've indicated you're relying on HVAC contractor network data to support those assumptions in the absence of actual consumer data. So what I'm asking for is that second piece, that HVAC consumer network -- contractor network data that you are relying on to support those assumptions.

C. FERNANDES: So the -- the other piece that we mentioned is that the federal carbon charge is quite recent --

L. DeMARCO: Can I get a response to that? Would you please provide the HVAC --

D. O'LEARY: Ms. DeMarco, I think it's only fair to allow Mr. Fernandes to complete his answer and explanation before interrupting again.

L. DeMARCO: Okay. Let it be clear that I'm asking for this data for the third time.

C. FERNANDES: Okay. And I'm still trying to respond.

So the information that we're collecting has only been since January. The federal carbon charge has changed since then. And then the disclaimer that we put up for consumers to try and ensure that they would understand the decision that they're making is even more recent. So what I'm really trying to say is I don't think that information is actually current. We would be looking on a forward basis to make sure that we collect it so that we can claim our savings, and that will be in our annual report. But I don't see how that information is actually relevant, anything we've collected prior to those items happening being relevant on a go-forward basis, because the situation has actually changed.

L. DeMARCO: So I'm a little confused here. Are you or are you not relying on HVAC network data to support your bookends for the temperature references for heat pumps?

C. FERNANDES: We will rely on the HVAC-collected data to claim our savings in the DSM program. What I'm saying is for a forecast to look forward, any data that we've collected would be prior to these other changes that have happened, which would be expected to change consumer behaviour and how the settings are put in.

D. JOHNSON: I think maybe, Ms. DeMarco, the confusion is that when we -- what Mr. Fernandes -- when he was alluding to earlier when we make our claims for actual savings, it will be based on the data that I think the two of you are talking about in the future. So that's -- that's, like, in the future, as customers do this, we'll be gathering that data, and then at the end, that's what we will make our claim on. And that is -- we fully acknowledge that is going to be different than the forecast that Mr. Fernandes has put together and made assumptions about how consumers will operate. And we've tried to articulate that that is what's unknown. There is absolutely a lot of unknown here. We don't know what's actually going to happen. We have put forward a forecast that we think is our best guess, but we acknowledge with all the uncertainty and changes that is a guess right now.

L. DeMARCO: That is very helpful, Mr. Johnson. So just to summarize, there is no data to support that assumed range right now?

C. FERNANDES: Correct. I mean, we've said that with our forecast, uncertainty. We are presupposing how consumers are going to react to the information that they've only recently received. And as we find out more, we'll find out more and adjust our assumptions from there.

D. JOHNSON: And then just quickly, Ms. DeMarco, before you move on, can I go back earlier. I just want to make sure it was clear because you asked a question about variable costs, and you said, "commodity," and I think I know what Mr. Fernandes was responding to as it relates to the bill, but I just want to make sure it was clear that our variable costs on the natural gas side would include not just commodity; it would include any part of the variable proportion of the distribution bill.

So there is a fixed charge, which is what Mr. Fernandes was referring to on the distribution bill. There is also variable parts of the distribution bill. All -- when he was talking about the variable, he was talking about all the variable components, not just the commodity.

L. DeMARCO: That's helpful. Can you undertake to provide a list of all of those line items on the distribution bill that are included and all of those line items that are excluded?

C. FERNANDES: So in the evidence that you referenced, we've provided links which takes you to those rate pages, and they're broken down by fixed charges and variable charges.

L. DeMARCO: I just really want to crystallize what's in and what's out, so it would be very helpful. Clearly I didn't pick it up, having read the evidence, what's in and what's outside of those calculations. So even if you want to colour-code "in" and "out," it would be very beneficial.

D. O'LEARY: Could you take Ms. DeMarco to the link in the evidence that you're referring to.

C. FERNANDES: If we can go to C-2-2, attachment 1. If you scroll down, Ms. Adams. If you look at the link under "natural gas for the Enbridge Gas distribution rate zone," if you can click on that. If you can scroll down. Sorry. Can you go to -- yeah, that table will be most helpful.

So changes for customers who purchase gas from Enbridge, there is a customer charge, which is a fixed charge per month. That's --

L. DeMARCO: In or -- is that in or out?

C. FERNANDES: That's the fixed charge that is not included. And then any of the items on this page that are listed as being a per m cube, they are included in the variable.

D. JOHNSON: And just for clarity, that's all items. Everything else is in cents per cube.

L. DeMARCO: A gas supply charge, cost adjustment, including the gas supply transportation and delivery, the delivery to you, the -- no longer the facility carbon charge or the facility carbon charge, in or out?

C. FERNANDES: All of the ones that are listed as a cents per m cube are variable charges. The only charge on here is the 26.74 per month is a fixed charge.

L. DeMARCO: So gas supply charge, delivery to you, facility carbon charge, transportation to Enbridge, federal carbon charge, annual increase, decrease, rate adjustment, and rate adjustment for the federal carbon deferral and variance account are all in?

C. FERNANDES: In the variable, correct.

L. DeMARCO: And with the electricity calculations, the electricity distribution charge is not in; is that right?

C. FERNANDES: Correct.

L. DeMARCO: That's helpful. Thank you.

Can I take you to C-2-2, figure 2. So my understanding is that this goes from minus 20 to 15 degrees Celsius; is that right?

C. FERNANDES: That's what's shown -- sorry. Yes, that's what's shown.

L. DeMARCO: I'm wondering if you can extend the upper parameter of the temperature range to the level of data that's available. I would think that that would be at least until 30 degrees Celsius or 25 degrees Celsius; is that right?

C. FERNANDES: It could go to any temperature at all, but it's not relevant for our DSM programs because above that temperature, there would be no space heating requirement; and, therefore, there is no gas consumption to conserve.

L. DeMARCO: So let's go back to that consumer operational economics. Do we know with actual data that every consumer turns off their space heater at 15 degrees?

C. FERNANDES: I can say that I don't know that. But, Ms. Adams, if you can scroll down a little bit to the table that shows the consumption by temperature. It's a little further down.

D. JOHNSON: It's page 7.

C. FERNANDES: Table 1 shows the total amount of gas consumption over a certain temperature. So what you can see is as you get higher temperatures, line 1 shows the total forecast, consumption at all temperatures above 10 degrees Celsius is only 25m3. So as you go higher and higher, there is less and less space heating, so even if they operate it, it doesn't consume a lot of gas. So it is de minimus. It's immaterial.

L. DeMARCO: So do we have data to show that there is zero natural gas consumption at 16 degrees Celsius over X number of Enbridge consumers, all of your consumers? I speak to my own experience, my heating doesn't go off until it's 20 degrees.

C. FERNANDES: But even if you keep your furnace on, it will cycle on and off so infrequently at those higher temperatures, your consumption will be minimal.

L. DeMARCO: But it won't be zero; correct?

C. FERNANDES: Okay. But for the purposes of what the OEB has put in for the scope of this technical conference, it's minimal, and it can have no impact on the cost-effectiveness.

L. DeMARCO: So can we assume for the record that it is 10m3 at 16 degrees Celsius or 5m3 at 20 degrees Celsius over the total number of Enbridge consumers, there is --

C. FERNANDES: If you would like -- if you would like for us to provide 15 and 20 degrees Celsius on a consistent basis to this table, we can provide that.

L. DeMARCO: That would be great. Can you undertake to do that, please, and may that undertaking be marked.

L. MURRAY: That will be Undertaking JT1.11.

L. DeMARCO: Thank you so much.

UNDERTAKING JT1.11: TO ADVISE OF THE TOTAL AMOUNT OF GAS CONSUMPTION AT 15 DEGREES CELSIUS AND AT 20 DEGREES CELSIUS

L. DeMARCO: Similarly, we're going back to footnote 7., pursuant to this next paragraph 14, I believe, which is C-22. And the footnote 7 assumes that all days -- there we go:

"... are above minus 16 degrees Celsius ..."[as read].

Is that an accurate assumption grounded in recent weather patterns.

C. FERNANDES: So the model that was used to derive this has a temperature forecast or temperature profile that's based on an hour-by-hour or 8760 hour-by-hour analysis. So for Toronto, that profile doesn't have any hours that are colder than that temperature. The profile is intended to be indicative of average weather because it's being used for economics. So you certainly could have colder-than-average winters, but over time, you would also have warmer-than-average winters that would average out, so to speak. So it's simply an outcome of the temperature profile utilized within the model. It doesn't mean that in any particular day in a future year it couldn't be substantially colder than that.

L. DeMARCO: And I understand the model is to apply to all of Ontario; is that correct, not just Toronto?

C. FERNANDES: So the model has more than one weather zone within Ontario. So it's broken up. So the profile for Ottawa would not be the same as Toronto, for example.

L. DeMARCO: Can I ask you to undertake to provide the data to go to minus 20 so we've got a full data range from minus 20 to plus 20.

C. FERNANDES: So I think what I was just saying previously would be that the model doesn't have any temperatures that cold, so it would not show any consumption.

L. DeMARCO: Would it be possible for you to extrapolate?

C. FERNANDES: What I really mean is there is a temperature profile for every hour of the year. There is 8,760 hours in that year. The temperature profile for Toronto has all the hours, and none of them are below minus 16 as an average weather basis, and that is the basis embedded within the model. If you would like us to assume a different temperature profile, we would need to know what you would like us to assume.

L. MURRAY: Could I just --

L. DeMARCO: Why don't you assume the northern point of your distribution system?

C. FERNANDES: Sorry, I think we've already undertaken to provide the model that will have each of the temperature profiles that are assumed, and one of them will be in northern Ontario.

L. DeMARCO: Could I ask you to identify the most northern point of your distribution system and undertake to do so?

C. FERNANDES: I think within the previous undertaking, we will endeavour to point to where the temperature profile, which is the most northern, is within that model.

L. DeMARCO: That would be wonderful. Maybe that could be Undertaking A to what I believe is Mr. Elson's Undertaking JT1.6, but correct me if I am wrong there, Mr. Murray.

D. O'LEARY: I think it's -- I think it's JT1.2. JT1.6 was the undertaking in respect to the IESO agreement.

L. MURRAY: Yes, I believe so.

L. DeMARCO: Yes. Apologies.

UNDERTAKING A to JT1.2: TO IDENTIFY THE MOST NORTHERN POINT OF THE DISTRIBUTION SYSTEM

L. DeMARCO: One last question in relation to these clarifications, and it is really in relation to C-3, T-3, schedule 1, pages 5 to 8, pertaining to the HRS program. And at page 7 very specifically, you outline the allocation of costs and you state that where the participant heats their home with natural gas -- this is sub A -- Enbridge pays the cost other than for home assessment, windows -- I can't read my own writing -- air sealing, which are funded -- which are shared -- those costs are shared by both IESO and Enbridge; is that right?

C. FERNANDES: That's correct.

L. DeMARCO: And can I ask who pays what for those shared expenses? Or what percentage is paid by whom for those shared expenses?

C. FERNANDES: Ms. Adams, can we go to C-2-1, table 1. So on page 4, table 1 outlines the various packages, but if you can scroll down to -- sorry, the next table, Ms. Adams. So this is the HRS program. Again, the vernacular that we talked about at the beginning in our DSM approvals, it was called the Residential Whole Home Offering, but in HRS, it's the Home Assessment Stream. If we are looking at jointly funded -- if you look at the middle column, stated packages 2 and 4, you can see almost every measure is solely funded by Enbridge Gas. But if you scroll down a little bit more, Ms. Adams, you will see under windows/doors, the total $100 incentive is split $50 between Enbridge and $50 between the IESO. And then the $200 for the base target for air sealing, for example, is $120 from Enbridge and $80 from the IESO.

L. DeMARCO: So it's -- just fair to say it's -- thank you, that's very helpful. It's variable depending on the type of activity? It's not 50-50 across the board. It's, you know, something like --

C. FERNANDES: Well, the -- well, Enbridge is interested in natural gas savings. That's our DSM framework. The IESO has their EDSM framework, which they're looking for electric savings, and they have authorization to do propane, oil, and wood. So they're, you know, other non-regulated fuels. So their funding is targeting electric savings, not natural gas savings. So the limited stacking that's available is -- the IESO's interest is in achieving electric savings and not gas savings.

L. DeMARCO: Sorry, I'm a little confused. I'm talking about the administration costs. If we go back up, my understanding is that this is the incentive amounts?

C. FERNANDES: These are the incentive amounts for consumers which is the --

L. DeMARCO: Right. And then the administration costs associated with you and the IESO administering these windows, doors, air sealing, and other related programs. And in terms of the administration costs, who pays what? Is there a uniform percent?

C. FERNANDES: There is not a uniform percent, but we did previously undertake to provide the contract with some look towards confidentiality between IESO and Enbridge. The way I described it earlier is in bringing the program administration portion together, we've endeavoured to have one party lead an activity, splitting up the activities to try and avoid duplication between the two organizations. And the contract, when you see it, will have an eye towards cost-sharing and cross-subsidization.

So the IESO and Enbridge recognized that that's something that we need to endeavour to avoid. There are some specific provisions in there where we're cost-sharing based on the best-available information, but we have obligations to work together periodically to review it and adjust to ensure that it is an equitable sharing of the costs between the electric and the gas ratepayer.

L. DeMARCO: And so safe to assume that who pays what will be outlined in that contract in terms of administration costs?

C. FERNANDES: It's outlined it, but it's expected also to be adjusted over time. Some costs, like in the assessment stream, Enbridge is the program administrator, so we will be paying incentives to, effectively, IESO's participants, so the cost of administrating the rebate payment needs to be shared. And, you know, that's -- it would be reasonable to say we're trying to target that based on participation. So it's not necessarily going to be a 50-50 sharing because the participation between natural gas and all other fuels won't be 50-50, as a simplified example.

L. DeMARCO: Just to be clear, this is not a gotcha, this is just an understanding of how the system is working.

One last question on the clarifications, and then a couple of very quick questions on Indigenous program overlap. Exhibit C-3, T-3, schedule 1, page 8, paragraph 23, you speak to -- I'll give it again, C-3, T-3, S-1, page 8, para 23. You speak to the value of collaboration with the IESO, second full sentence:

"The value of the collaboration lies ..."[as read]

I'm assuming that this is the value of collaboration to the residential consumer; is that right?

C. FERNANDES: I think it's somewhat more broad than that. If we look at the OEB DSM framework that we operate under for natural gas DSM, section 7.2 reads:

"The OEB expects that Enbridge Gas will endeavour to coordinate the delivery of DSM programs with electricity CDM programs where possible, including modifying the participant eligibility requirements ..."[as read]

And it goes on to speak to a number of other items. From the point of view of the direction coming from the provincial government endeavouring to have a one-window approach, I think the value is, from the consumer side, it helps with lack of confusion. There is one place for them to go to get information within Ontario. That's really the direction that was given to the IESO, and it was directed to the OEB, but our assumption at Enbridge is it flows through to Enbridge given we’re -- delivering the programs in Ontario.

So, you know, there is -- some parties may think there is a large amount of efficiencies from program administration, and there may be some, and they'll flow to the ratepayer, either through increased participation or we have a DSM VA where we can't keep any money, it would flow back to them. But we really think the value is more from the consumer perspective in lack of confusion. And hopefully over time with a one-window or this Home Renovation Savings brand, Ontario -- Ontarians can have a trusted brand and will see the value through increased participation and ease for consumers.

L. DeMARCO: So that's very helpful. Thank you. So the -- if I've got it right, the value of collaboration is beyond just the consumer. It includes the corporation, Enbridge, and the value of having a trusted brand; is that right?

C. FERNANDES: We see there being a single program for Ontarians having benefits for consumers. The way that we would see that as program results within our DSM program is we hope that it would enhance participation over time.

L. DeMARCO: And you mentioned the value of a trusted brand so that's helpful. Thank you.

I'm going to move on to specifics regarding program overlap, and I will try and buzz through this, noting, Mr. Murray, that I am much longer than I anticipated to be. I am going to start specifically at Exhibit A-2, schedule 1, page 4, paragraph 14, where you expressly identify that Indigenous communities are affected by this application. And you would agree with that, yes?

C. FERNANDES: There is programming in what we're proposing that's readily available to Indigenous communities. I would note, though, the -- Indigenous communities, although we wouldn't preclude anyone from going through the residential program, the low-income program, income-qualified programming has a much, much better offer for consumers. It's generally no costs to the occupant. And First Nation communities would qualify for that, so they -- you know, we wouldn't -- if they're identified, we would be putting them -- or seeking them to go through the -- that program because it's better for them.

L. DeMARCO: That's kind of exactly what I'm trying to understand. How much is covered by the residential program? How -- what percentage of resident -- of Indigenous customers are covered by the low-income program and other programs, and what percentage of customers are covered by the residential programs, including some of the moderate-income, et cetera, programs that you have identified. Do you have a sense of that?

C. FERNANDES: So if we're talking First Nation communities, with a -- I think with a band council resolution, they're covered by the low-income program, and they generally get full cost coverage.

L. DeMARCO: And are they also covered by the residential program?

C. FERNANDES: Well, you can't go through both for the same measure. So, you know, for example, if you went through our home winter-proofing program under low income and got your attic installed for free, you know, coming back to the residential program, you can't do your attic again. It's already done, first and foremost. But the residential program or the mass market program would have a rebate which wouldn't be full cost coverage.

L. DeMARCO: So assuming that First Nations customers qualify for the low-income program, they could go that way if there is a band council resolution; is that right?

C. FERNANDES: Yeah, so generally any First Nation on reserve is covered by the low-income program, is the way I would describe it. We don't have anything in our residential program that precludes any gas customer from participating. So, of course, someone could go through it, but anyone who qualifies -- and we do have a lot of marketing -- you know, if they were off reserve, they could qualify for low income, and it just has different qualification requirements. But anyone, Indigenous or not, who can qualify for low income, we would be trying to push them through that program. That's the whole point of the program and why it has full cost coverage. So they need additional support.

L. DeMARCO: Do you have any data on the number of Indigenous customers going through the low income versus, I guess, the residential programs?

C. FERNANDES: We would not have data like that. If someone went through our residential program, there is nothing where we could identify them as being a member of an Indigenous community. It's not a type of question that we would ask. But we do try and advertise and market to consumers that there is an income-qualified programming, and they should check if they qualify. And then those -- that marketing is quite clear. So our hope is that wouldn't happen.

L. DeMARCO: Do you have any data associated with the number of Indigenous customers that are qualifying for the whole -- Whole Home program or the single-measure program or the smart home program?

C. FERNANDES: So, Ms. DeMarco, the boundaries of the technical conference or scope was to the residential program.

L. DeMARCO: And as I understand it, those are all three portions of the residential program. The Whole Home program, the single-measure program, and the smart home program are all part of the residential program.

D. O'LEARY: Ms. DeMarco, it's Dennis O'Leary. I'm just having a little trouble trying to understand your question. Are you asking -- and I think we heard the answer, but are you asking whether or not Enbridge tracks the number of members of the Indigenous communities, whether on reserve or off reserve, are participating in a residential program? Not the low-income program, but the residential program?

L. DeMARCO: Yes. We're a little concerned that there is confusion among particular customers as to what is available to them and that they may be, in fact, streaming through the residential programs, plural.

D. O'LEARY: So then I did understand the question, and I think the answer that I heard was that they don't track that specifically. So that's not something we can actually provide to you today.

L. DeMARCO: So there is no data on that, to be clear?

D. O'LEARY: No.

L. DeMARCO: That's helpful.

And so I think that is the end of my questions.

L. MURRAY: Thank you very much, Ms. DeMarco.

I think it's time for our afternoon break. Why don't we take a break now and come back at 3:30.

# --- Recess taken at 3:15 p.m.

# --- On resuming at 3:30 p.m.

L. MURRAY: Welcome back to the technical conference. Next on the list is Ms. Simon. The floor is yours.

J. SIMON: Thank you very much, Mr. Murray.

# EXAMINATION BY J. SIMON:

J. SIMON: I'm asking questions on behalf of both VECC and LIEN. Throughout the course of the day today, we have been collaborating by reviewing the question -- or by reviewing our joint questions with a view to being as efficient as possible. And as a result, we've concluded that most of our questions have either been directly addressed or covered sufficiently to avoid the need for follow-up at this technical conference. So we have very few questions remaining.

So the first question is with regard to the residential programs and its offerings or streams, please describe for each offering and the residential program as a whole, what were all the steps that Enbridge has taken in 2024 to lead to improvements in TRC results? What steps have been taken so far in 2025 to improve the TRC+ results? And what steps are planned to monitor, track, and improve TRC+ results for 2026 should the plan be approved?

C. FERNANDES: Okay. Ms. Simon, I think in our opening remarks, we alluded to a number of those items. So in 2024 when Enbridge had the HER relaunch due to the closure of intake of HER+, during establishing -- or re-establishing the rebate levels within the Whole Home program offering, the noted lower incentive or low incentive, relatively speaking for fenestration products, or windows and doors, is, one, the change in the heat pump incentive, trying to have it linked to capacity, which would link it to higher equipment capacity, which can drive higher gas savings, and then also reinstituting the requirement within the Whole Home program offering to have multiple measures are all targeted towards both managing within the OEB-approved budget but also with an eye towards improving cost-effectiveness.

And then the other one that was noted as well when we launched Home Renovation Savings program, moving heat pumps out of a custom prescriptive pre- and post-assessment program into a single-measure prescriptive, easier customer experience, but it was also noted that that saves the program administrator rebate dollars for the home assessment for consumers that don't value that.

And then on a go-forward basis, our collaboration with the IESO, we expect to yield efficiencies over time with the combined brand getting traction over time. We hope to have increased participation. And then in future periods, there has been a fair bit of -- I think the right way of portraying it, set-up costs in order to move under that one window. So those will largely land in 2025, but we wouldn't expect those to be there in 2026 and going forward, assuming continuity.

J. SIMON: Yes. That's great. Because I wanted those in one place. I'm wondering if you have done anything regarding process improvements. A lot of what you're talking about will have, you know, impacts related to things that are quantitative, but I'm wondering if there are any process improvements that you've made regarding marketing and customer engagement, how you go to market, mass marketing, you know, training, anything like that that you're providing or plan to provide to HVAC contractors or have provided over the -- you know, over the course of time since 2024 that's led to, you know, cost efficiencies. I'm wondering if there are anything -- any things like that that you haven't covered off in your list that you could describe?

C. FERNANDES: So the biggest one is going to a single-measure prescriptive type of program. We heard, from Mr. Elson, some of the feedback in his original letter around some of the HVACs not liking the process, and we made some commitments to take some of that input offline in the future, but that was simply one entity or one player in the market view.

How things had worked previously was with -- for consumers was they had to schedule with the service organization a pre-assessment, have the heat pump installed, and then have a post-assessment. In that previous case, the HVAC contractor had very little administration to do, but there was a large amount for both the consumer and the service organization, and consequently, the program administrator, being Enbridge, had to pay substantial rebates for the cost of the assessment. So moving through to eliminate all of that, while it may have -- some market players have a little bit of extra work, the total net in terms of processing is substantially reduced, which is a benefit for consumers and should yield cost savings over time.

J. SIMON: Is there anything else that you want to add to what you've done or what you plan to do in 2026?

C. FERNANDES: In 2026, there -- we haven't had the fulsome discussions with the IESO in terms of what changes may be introduced. What we have discussed is, you know, a little bit of an annual planning process. So, you know, we haven't quite gotten to any changes in either rebate levels or process improvements. We plan to have those, hopefully, by the end of this quarter, making final decisions towards, you know, the November sort of time frame for implementation in 2026.

Not everything will always happen, you know, on a full-year, calendar basis, but our discussions have been that's what we would like to drive towards and have that be at least the standard. So new items being introduced in January aligns with both of our fiscal periods and will make things a little bit easier to measure and evaluate. So we're just -- we're not -- we're not quite at that point, given the collaboration with the IESO is so new to describe. We haven't had those discussions, so I can't really tell you any future plans that we haven't crystallized.

J. SIMON: But the plan is to reach out to -- if I understood what you just said, your plan is to reach out to the IESO, and you hope to have those kinds of discussions for planning in November going forward into 2026?

C. FERNANDES: Yeah, I think we would say that we would have those every year, hopefully concluding by November so those changes can be implemented for January.

J. SIMON: The collaboration agreement that you have with the IESO, is it an annual agreement that's renewable, and do you -- is there a time -- is that -- is the plan there to renegotiate every year for the 3-year EDSM framework? Is that -- is that the framework that you're working toward?

C. FERNANDES: I think we have agreed to undertake to provide the agreement with whatever confidentiality provisions or requests. From my recollection as having participated in drafting the agreement, it's a -- it's a 3-year term renewable for up to 12 years. It was intended to match the electric DSM approvals that the IESO received. So I forget the exact dates, but it goes out 12 years beyond. But it is a 3-year agreement with the contemplation of renewing for 3-year terms under the same broad agreement for up to 12 years.

J. SIMON: Right. That's what I was looking for. I was looking to find out if it -- if the intent was to be harmonized with the EDSM framework, and it sounds like it is. So that's -- that's great. Thank you.

The next question and final question relates to the July 16th, 2025, letter to Ms. Marconi from Kent Elson. The letter refers to Enbridge doing a review process that you plan to carry out, in which Environmental Defence has indicated they will attempt to secure improvements from Enbridge Gas to the residential program. If you would, please, could you please describe what that review process, either formal or informal, is intended to be and whether other intervenors will be able to participate and what the timing is?

C. FERNANDES: I would have to say I don't know what the exact timing is. The discussion with Mr. Elson was relatively -- relatively short. The items that he originally raised for process issues in his -- not the July 16th letter, but, I think, prior related to process issues, he raised, I think, three items. We talked through each of the three items, and we basically agreed that he would have some input to us so that when we're having our discussions with the IESO about process improvements, we would be able to take that input into account. From my recollection of that, it really would hinge on some of his contacts from the HVAC community providing additional details beyond what was provided in his letter.

In terms of the second part of your question, which is other intervenors, I think it's fair to say that Enbridge has always tried to gather information from stakeholders in terms of improving our programs. So we don't have a formal process, per se, other than we said we would -- we would circle back. Mr. Elson was going to get some of that information and provide a little bit more detail in writing, so if there's other parties that are -- have specific items, we would certainly take those into account as best we could, if they could provide input on specifics in writing.

J. SIMON: Okay, great. So we will see that communication as part of the continuation of this proceeding? How would we know how to participate if this proceeding is over? Will you just keep the e-mails going? How will the rest of us know what's going on?

D. O'LEARY: Ms. Simon, it's Dennis O'Leary.

J. SIMON: Yeah.

D. O'LEARY: I'm just trying to understand what are you asking? Are you suggesting that there should be some new sort of reporting that's provided? And at what threshold would you be required as a utility to report and to whom? I'm just having trouble understanding what --

J. SIMON: Nothing like that, Mr. O'Leary. Thanks. This process was raised as part of this proceeding. I'm trying to understand what it is and how it relates to this proceeding or whether it's more focused on 2027 to 2030. I don't know. I'm trying to get clarity. And if it's focused on things being discussed here, then it would be helpful to be kept apprised, as we have been, being copied on the correspondence, so we can be apprised of what's going on. And if it becomes more formalized and there is an opportunity to also participate, then, you know, LIEN and VECC would be interested in participating. I'm not asking for a process, I'm not asking for anything other than to understand what was meant in the correspondence and what the next steps are and how it relates to this proceeding.

D. O'LEARY: Judy, if I could direct you to my letter on behalf of Enbridge dated July 14th, I think that sums up the company's views of matters in respect of the operational details that Mr. Elson referenced, and we said, well, these are usually matters that are left to the program administrator, so not -- they aren't normally something that would be the subject of letters or notices provided to anyone. And I don't want to put words in Mr. Elson's mouth, but it appears that he agreed with that and felt that the best way to proceed to assist the company in providing any efficiency improvements would be to do so directly with the company and we will -- the company has endeavoured to hear Mr. Elson and the HVAC contacts he has out, and we'll take that into consideration and determine whether any operational details should be amended.

But I don't think there was ever any intention for a formal process to be developed. And it was just really if your group of LIEN or VECC have some suggestions for operational improvements, we would welcome those, or the company would welcome those. And I don't think you need any formal process. That was all that was intended.

J. SIMON: Awesome. Thank you very much. That's very helpful. Those are all our questions. Thank you, gentlemen.

L. MURRAY: Thank you very much, Ms. Simon. Before we get to OEB Staff, I know Mr. Ladanyi -- and I may want to canvass the intervenors to see whether or not, based on what's happened today, if they had any additional questions before I go on to our last questioner of the day, Mr. Wasylyk. I don't see anyone appearing on camera, so with that, I will assume that we are on to the last questioner of the day, Mr. Wasylyk for OEB Staff. The floor is yours.

J. WASYLYK: Okay. Thank you very much, Mr. Murray.

# EXAMINATION BY J. WASYLYK:

J. WASYLYK: Mr. Fernandes, Mr. Johnson, nice to see you again. Thanks for bearing with us today. I'll try to be as efficient as possible. Most of my questions are going to focus on Exhibit D-1-1, attachment 1, the Excel file that you provided with all the cost-effectiveness run through there. Ms. Adams, if you want to pull it up, that would be great.

My first question, maybe just to build off Ms. Simon's final question, as part of, you know, your sort of standard updating process and review of the offers in the residential program leading into 2026, will you also be considering additional updates in addition to the ones that you had mentioned or the EDCGC letterhead mentioned that Enbridge is indicating that it's considering including things like revised incentive levels, an expanded measure list, or anything else?

C. FERNANDES: So we haven't had fulsome discussions with the IESO, but those are items, Mr. Wasylyk, that I think we know we would want to table at least having a discussion with the IESO. In terms of additional measures, we do plan on launching a single-measure attic prescriptive program, very similar to what we described with the heat pumps. We hope to have that in market this quarter. That is under the single-measure approvals so it would be covered under the single-measure offering. The IESO, we believe, has some items on their side as well, so, you know, the exact timing is a bit of a discussion between partners to be able to, you know, coordinate all the updates to website and marketing campaigns and whatnot. So beyond those ones, we really haven't advanced those discussions.

J. WASYLYK: Okay. No, that's fair. Thank you. And I think that those are likely some of the things that will be part of a broader discussion for the 27-plus plan. That's helpful.

Okay. Now, specifically some follow-ups and clarifications in the table -- thank you, Ms. Adams, for pulling that up. So, Mr. Fernandes, Mr. Johnson, at several points, you had mentioned that there was a lot of uncertainty with respect to the '26 forecast considering all the recent changes that have come about. To help level set, can you please confirm what data is included in this file in D-1-1, attachment 1? Is this all forecast 2025 program data excluding HER+ participation in the home -- in the Whole Home offer?

C. FERNANDES: That's correct. This is a 2025 full-year interim forecast.

J. WASYLYK: Okay. And so then this is not -- maybe, Mr. Fernandes, can you carry that on and discuss the considerations for 2026. Is it assumed that -- or does Enbridge believe that this provides a reasonable proxy for 2026 participation?

C. FERNANDES: Yeah, that's correct. Because we haven't had those discussions on the combined forecast with the IESO, we don't have a 2026 forecast at this point in time. The rollover request was based on, you know, simple inflationary increase to the residential program. This is the best available data. From a perspective of cost-effectiveness, we think this is an appropriate proxy, and it's the best proxy that we have at this point in time.

J. WASYLYK: Okay. What factors might lead to differences between the 2025 and 2026 program years and forecasts?

C. FERNANDES: Probably the biggest ones could be around what -- there's been a fair bit of air time on our uncertainty with respect to heat pumps. And I don't know if we want to quickly run through what that might look like, but it is a live spreadsheet.

So our uncertainty is really around the consumer reaction of --

J. WASYLYK: Yeah.

C. FERNANDES: -- gas heated homes about participation. So, you know, the participation could be substantially higher. So in column D -- that's a little bit hard to read on here -- but I think it's -- heat pump A is row 7, 3,275 in terms of the forecasted number of units.

You know, straight out, we're not sure what that number is going to look like. Our previous experience was, you know, with much higher incentives under HER+. We had, you know, probably well over 20x that amount, but we don't have that level of incentives, and we certainly wouldn't have that budget envelope with what we're proposing. So that's a major factor, you know, that number could go up substantially. Or down.

And then as was noted, I believe, in column J, same row 7, the 179, I think with Mr. Elson, we were going through and saying we have a lot of uncertainty for the consumers who do participate, how are they going to operate their equipment?

So I think based on the table that we provided in C-2-2 -- I think it was table 2 -- 1 -- with the various gas savings at different temperatures, you know, that number could be lower, as low as 25 if they hardly operate it at all, but it could easily be 1,000 if they, you know, endeavour on putting in a hybrid system and trying to max out the use of the heat pump for space heating within its capacity. So there is --

J. WASYLYK: Yeah, okay. No, that's --

C. FERNANDES: -- a fair bit of uncertainty in this forecast.

J. WASYLYK: That's fair. No, and I appreciate that. And you don't need to go into all the details relative to heat pumps. You have done a good job responding to those comments earlier. Mr. Fernandes, maybe you can just comment generally if there are any other forecast numbers on here, either from column -- and maybe we can lead from column D because everything kind of flows from there -- for the other participation numbers, for the Whole Home offer. And maybe you can clarify for row 9, "HRS attic," is that what you're referring to as the potential single-measure attic offering?

C. FERNANDES: Correct. So that one -- thank you for calling it out, Mr. Wasylyk. That's a great point. For 2026, like, the forecasted number of units, we may be aggressive based on our timing of when we launch it in 2025, but we'll only have a partial year in 2026 [sic], or more on a go-forward basis, once launched and established in the market, it is another option for consumers. It does simplify the customer journey. It means they don't have to do a pre- and post-assessment, which lowers the number of appointments at their home and lowers, you know, our cost if they don't value the home assessment. But that would potentially cannibalize our Whole Home program offering. So the mix between the different program offers within the sheet is something that we have some uncertainty around as well.

So if that number was substantially higher in 2026, it would -- you know, if you go to the very, very far right, you would see TRC is relatively better. So if it has a higher level of cannibalization of the Whole Home program offering, then that would improve the overall cost-effectiveness as measured by the TRC, if that's to answer your question --

J. WASYLYK: No, that's -- that's really helpful. I'm glad you focused on attic there for a second. I'm not sure if there is another comment coming in.

D. JOHNSON: Yeah. Maybe I'll just add one other thing that, again, I think has already been talked about, but I will just reiterate in the context of your question, is the incremental cost. So some of those come from subdocs, and those are prescribed, so we wouldn't expect those to change. But the example that Mr. Fernandes -- and there's a couple others as well already talked about, is there is a placeholder value in there for heat pumps. Even the HER are actuals, or based on historics, but, again, the actual incremental cost values we see could change there. So that is another thing that could impact the cost-effectiveness.

J. WASYLYK: Yeah, I appreciate that. And then so, Mr. Fernandes, just before we leave this one, if we -- if you look at the values in column D, are there any others in there? And, I suppose, maybe you have already addressed all that because the relationship between attic and Whole Home, you have stressed that, the possibility for there to be fluctuation depending on uptake on one versus the other, and then just the unknowns with heat pump. So I don't know if we need to spend much time on smart thermostats. So thank you for that. I'm going to move to my next question.

Ms. Adams, if you can move to the first tab, Program TRC+. Here, okay. Sorry, just give me one second.

Okay. Now here, note number 3. And I know you're going to undertake to provide the agreement between yourselves and the IESO. Note number 3, though, says:

"Programs delivered in collaboration with the IESO share benefits and costs. The attribution of these benefits and costs are not reflected in the forecast."[as read]

I know there was also an attribution agreement as part of the previous joint venture that you had with Natural Resources Canada, and there needed to be some adjustments at the back end as part of evaluation in order to meet certain requirements.

Maybe, Mr. Fernandes or Mr. Johnson, can you please speak to what impacts, if any, may come from the attribution of benefits following your -- the agreement with the IESO and the roll out of the program?

D. JOHNSON: So in terms of attribution of benefits, the reason for that note is that is still being sorted out. So at a very high level, as the framework dictates, Enbridge gets the gas benefits and IESO gets the electric benefits. How we've done this calculation is just looking at the total TRC. Because the challenge that we haven't sorted out yet and still need to is then how do you attribute the costs? So the purpose of this table, we've looked at all the benefits and then all the costs that -- you know, the incremental costs and our program costs. But I think that's something that does require further discussion, and that's why we've noted it here.

C. FERNANDES: So to clarify additionally on what Mr. Johnson said, what's been portrayed in this file is the natural gas-heated homes, the ones that Enbridge is funding with no eye towards sharing of costs or benefits for the IESO for the purposes of the TRC+ calculation because the incentives don't matter in a TRC+ calculation.

So whether IESO is funding a small portion of the Whole Home participants or not is irrelevant to that calculation, but it also hasn't stripped out, you know, attribution with respect to the electric savings from the gas-funded measures. But it also isn't bringing in any benefits from electric measures. Like, given that the Home Renovation Savings program is a single program across all fuels, this is a relatively simplified approach to try to say this is what we think is indicative of the gas results, but we haven't formalized how that would be done for the purposes of our annual reporting or evaluation at this point in time. So we've got our assumptions in trying to look at it solely from a gas participation point of view.

J. WASYLYK: Okay, that's helpful. Will -- and I heard -- I think I heard you right in that you were saying that that is still a work-in-progress with the IESO, the final sort of attribution agreement; is that right?

D. JOHNSON: I would say more the evaluation, not the attribution agreement. Again, the attribution of savings, I think, is clear, and that's what everyone focuses on, right, how do you get the savings. It's more just the details once you get into something like a TRC calculation and trying to determine that at the back end. How do you appropriately divvy up the incremental cost, for example.

J. WASYLYK: Okay.

D. JOHNSON: So at least in my mind, I haven't been involved in the contract, but I would be surprised if that level of detail was in the contract.

J. WASYLYK: Right. Okay. Thanks. Now, I just want to see because you have provided a few of the answers to my questions as we just spoke earlier, so let me move along.

Ms. Adams, we can go back to the measured TRC+ calculated tab, please, and then right now I'm looking in columns -- okay. For -- and you discussed this a little bit earlier, I think -- I'm looking in column F, free ridership, and column G, spillover -- with Ms. Girvan, I think. I'm just hoping you can confirm the source of the free ridership and spillover values for the heat pump line items.

D. JOHNSON: Yeah, so that's a great question again. This is a forecast. This is not an existing subdoc. It's never been -- it wasn't part of our initial plans. So this is a measure that we put forward as part of the discussions with the SAG. So it's a little bit unorthodox, but as part of the discussions from the SAG, we got input from them on what appropriate values would be. My understanding is that was also reviewed with the EAC, and people agreed with these values, so these are the values that we are suggesting to use going forward.

J. WASYLYK: Yeah, perfect. Thank you, Mr. Johnson.

Okay. Moving along to column I, EUL, or effective useful life, can you discuss how the EUL of 25 years was developed for the two iterations of the Whole Home offer? Well, and I think maybe I can pause just before you go ahead and do that. What I'm interested in is for -- well, actually, you know what, maybe -- maybe I'll just pause, and I'll let you go ahead and give your response, and I can follow up.

D. JOHNSON: So, again, this is a straightforward rollover. We simply took the values that were in our original application and approved as part of our original application and rolled them forward. The origins of those intended to be a mix. You know, you've got some measures -- like, Whole Home is a multi-measured program. It's -- there's a whole bunch of different components. Some things like insulation you would expect to last longer, you've got some shorter measure life, and that was intended to be a reasonable average.

J. WASYLYK: Okay. That's fair. And you can confirm that in -- that in neither of these Whole Home -- iterations of the Whole Home program are heat pumps included; correct?

C. FERNANDES: Sorry. The HER --

J. WASYLYK: Oh, that's right, it will be.

C. FERNANDES: -- will have that included. The HRS line item would not because it's been moved to single-measure prescriptive.

J. WASYLYK: Right. And so for HER -- and we can see that the EUL -- you've got it below here -- for heat pumps is 16 years. And, Mr. Johnson, as you just stated, for insulation, it will be likely significantly more than that, sometimes upwards of 30 years, as you can see in the attic line item there.

And is there any additional calculations that you have run to provide a more discrete analysis of the Whole Home -- the HER Whole Home offer on a cost-effectiveness basis that would account for the uptake of heat pumps relative to the other measures? Because there would be a significant change, even just thinking about changes to the EUL.

D. JOHNSON: I'm not entirely sure I followed that. Apologies.

J. WASYLYK: No problem. It wasn't clearly stated.

C. FERNANDES: Mr. Wasylyk, if we can -- Ms. Adams, if you can move to the next tab, the Whole Home measure mix. I think this might be getting at with what you were looking for --

J. WASYLYK: Well, I've got some questions on this one as well. Maybe I can just ask it again and try to do it a little bit more clearly. And as a first just sort of clarification, so in the HER Whole Home offer, there will be a mix of measures. Heat pumps and insulation and air sealing would be those -- including windows and doors would be the biggest ones there; right?

D. JOHNSON: Yeah, if -- sort of jumping back, maybe I'll take a stab at it. If your question is -- and you can clearly see that the measure mixture has changed -- if, as a result of that, have we done any analysis to see if the effective useful life should change, we have not.

J. WASYLYK: Okay. That's fair. That's good enough for now. Thanks.

D. JOHNSON: Okay. So --

J. WASYLYK: No, that's fine.

D. JOHNSON: -- if that's what you're asking.

J. WASYLYK: Well, in a roundabout way, yes. And I suppose maybe you can just comment on if more granular analysis was run on the HER Whole Home offer and the forecast for 2026. Considering the measure mix, how many participants do you expect in 2026 to carry over from -- as part of the HER -- as part of the HER offer?

C. FERNANDES: So I think we've already said the HER+, you know, minimal to zero. HER was -- you know, intake was ended in January when we launched the Home Renovation Savings program, so it effectively switched over from an intake perspective. So I think the HER is also minimal in 2026, but that -- that should be picked up with increased participation in the HRS assessment stream.

J. WASYLYK: Yeah. No, that's fair. Okay. No, that's helpful. Thank you, Mr. Fernandes.

Okay. Moving along. In columns J through O, there is various savings assumptions included, both for natural gas and electricity. Now, these are input as raw values. Now, can you please discuss how these were derived, and particularly for the Whole Home offer, as they include multiple measures?

D. JOHNSON: So -- okay. We'll start from left to right. So for J, for the gas savings, those are based on sort of historical values for each of those respective programs. That's where the gas savings are coming from, so sort of what we're seeing so far in each of those. Same for the electrical -- annual electrical savings, those are actual -- what we're seeing sort of historically.

Where it gets more complicated is the summer and winter peak capacity savings, and I think there is also costs somewhere there -- oh, no. Sorry. Those are positive and negative values. So for those values -- and I think we talked about this earlier as it related specifically to heat pumps -- we have a tool where we take those kilowatt values, compare them against IESO's tables, and convert that into either a -- depending on whether it's a negative or a positive value.

J. WASYLYK: Okay. That's helpful. Thank you, Mr. Johnson.

And now in column O, incremental costs and dollars per unit. You had a discussion with Mr. Elson earlier today, so just a couple minor clarifications. Can you confirm that the costs and benefits included here are based on the full measure cost, I guess, subsequently full savings for the entire life of the new measures, or do they account for natural replacement of the existing equipment at some point during the life of the existing equipment?

D. JOHNSON: So it --

C. FERNANDES: Depends on measure. So when we look at the heat pumps, they all have a baseline.

J. WASYLYK: Yeah.

C. FERNANDES: The example with the 2010 dollars, that's assuming that you were going to install and/or -- sorry -- not and/or -- install or replace your air conditioner. So an air conditioning would be the baseline cost, and it's the incremental cost of a heat pump over and above that air conditioner.

For the Whole Home program, the assumption that's built in, as you said, for the majority of the measures is like a full project cost. There is no real baseline. The exception would be fenestration products, or windows and doors. There is an assumption built in that there will be a baseline where they were going to, you know, in the overly simplified illustrative example, install a two-pane window, but now the program is influencing them to put in a three-pane window, again, as an illustrative example. So it's the incremental cost between the three-pane and the two-pane that would be included.

J. WASYLYK: And is there also an assumption as to when that would be happening?

C. FERNANDES: We haven't assumed in this forecast that there is any pull-forward effects. It's assumed to be at the time of natural replacement, I think, is the terminology that is commonly used. So if a window is being replaced, we're assuming it is being replaced when it would have happened. We're not getting anyone to replace a window early with the low level of rebates that -- relative to the total project cost.

J. WASYLYK: Perfect. Okay. Great. Thanks.

So now we can actually move to the next tab, Ms. Adams, the Whole Home measure mix tab where we were just a couple minutes ago. And so I think that you confirmed my first clarification that what's shown in B and C here are the -- maybe forecast or sort of interim forecast uptake percentages by measures in the two iterations of the Whole Home offer; is that right?

C. FERNANDES: Correct. Since HER+ closed intake, the HER was the relaunch, Enbridge only, from July 2024 up until the end of January 2025, and then that's when Home Renovation Savings was launched. So the Home Assessment Stream went from January 2025 until presently in market. So at the time these figures were pulled, it was the information we had available within that time frame, and then the only thing I would note on that is that the dates given is when the program was in market, but because of the pre- and post-assessment requirement, there is quite a timeline between when it was available in market and when we actually see any results because we don't know what the consumer actually installed until the post-assessment takes place and it's submitted in to Enbridge. So the numbers on the right is a pretty small dataset. And even the numbers in column B, it was -- it was only for a short period of time, July until January. So, you know, that's not a large sample size, in any event.

J. WASYLYK: No. Okay. No. Appreciate that, and thanks for the context.

So then with these in mind and, you know, based on the last tab that we were just looking at and, you know, acknowledging the uncertainty in the forecast, can you just discuss -- because I wasn't able to track the values and how, you know, the percentages from column B or C were used as part of the last tab in the measured TRC+ calculator. Can you discuss how this was taken into consideration, these percentages here and the measure mix, as part of the measured TRC+ calculator?

C. FERNANDES: So if we take the example in column B, this is just simply the number of participants that have completed and what percentage of those total participants did each of the measures. It clearly adds up to more than 100 percent because the program has a requirement to do more than one measure. So some participants will do two, some will do three, some will do four, and so on.

So based on the dataset that we had used for our forecast, that was the breakdown of how many participants did each of those measures. When you -- you do that weighted average out across the participation with the baseline adjustments that we spoke about earlier, that would yield the incremental costs that we have on the other tab for that program offering.

D. JOHNSON: Mr. Wasylyk, if your question is that, do the numbers on this tab feed in directly to the math on the measured TRC+ calculator tab, the answer is they do not.

J. WASYLYK: They do not.

D. JOHNSON: This was -- this was simply --

J. WASYLYK: Okay.

D. JOHNSON: And I forget the exact question that was asked, but we were trying to be illustrative. So I think what Mr. Fernandes was saying is that's the order. It's like the math that you see on the other tab is what the savings are. This was to be illustrative so you could see, if people were interested, what's the measure mix that drove those numbers. But the math is not connected.

J. WASYLYK: Okay.

C. FERNANDES: Maybe we can clarify that further. If -- Ms. Adams, if you go to the measured TRC+ calculator tab and you go to the left. So for the row 5, if you're looking at the HER, and we -- where is the incremental costs. Can you move just slightly to the right, Ms. Adams. And column O -- sorry. Yeah, it is O. The 4806.

J. WASYLYK: Mm-hmm, I see it.

C. FERNANDES: We -- we had a historical dataset for that specific program offering. On average, it was 4806. When we were asked to provide additional detail in Procedural Order 4 -- I think it was 4 -- what we had done in our forecast, we used that dataset to calculate what's shown on the Whole Home measure mix tab. So it wasn't that the percentage breakdowns feed into our forecast. So it's not -- it was the other way around. It was our -- our forecast was based on historical results. And then in order to provide more detail, we later presented the tabs on the Whole Home measure mix -- or the information on the Whole Home measure mix tab in order to try and provide more detail in a meaningful way.

J. WASYLYK: That's helpful clarification. Thank you both for that. I was trying to figure that out on my own, but it's nice to have the direct feedback.

When I'm looking at the Whole Home measure mix, the one change -- it doesn't -- it stands out as not a major change, but in the windows and doors, there is an increase there, although incentives have gone down. Can you just discuss maybe what's led to that or any observations.

C. FERNANDES: Okay. So just to clarify, the column B and C, HER had $50 per window, and HRS has $100 because there is the stacking of the 50 from Enbridge and the IESO. I don't think that necessarily drives the change that you're seeing, Mr. Wasylyk. What I would probably comment on, because it's a distribution of participation, row 10, one has heat pumps, and the others doesn't. So you have -- I think it would be called a base effect that -- you know, you don't have equivalent levels of participation because in one case, you would have had heat pumps kind of skewing that; the other one, you don't. The way I would say it and also because of the previous comment on them being relatively small datasets, the 36 percent versus 41, I would say we haven't seen any difference that's, you know, significant or statistically significant. They're effectively pretty much the same.

J. WASYLYK: Okay. No, that's helpful, and appreciate the clarity too. Sometimes I think I confuse HER+ with HER, so that is useful.

So maybe just more generally, when looking at the go-forward program, the HRS program, it essentially amounts to a building envelope or a weatherization program; would that be true?

C. FERNANDES: For the HRS, Home Assessment Stream --

J. WASYLYK: Yes.

C. FERNANDES: -- otherwise known as Whole Home program offering, yes, it's building envelope, but it does also include heat pump water heaters, although we haven’t received a large amount of uptake on that.

J. WASYLYK: Right. And so in the past, you know, my understanding is that that type of offer always would run, you know, generally cost-effective. And, you know, with the removal and sort of maybe less of a focus on windows and doors and heat pumps that may have been negatively impacting cost-effectiveness in recent years, can you just discuss generally why we are still seeing significantly lower TRC+ values for the offer.

C. FERNANDES: So I think that's really a function of the federal carbon charge being set to zero. So the make-up of the TRC+ calculation, which is really just a discounted cash flow, you know, discounting to show future periods, costs in the present day with that 4 percent real discount rate.

The avoided costs or benefits that were in the calculation previously were dependent on the federal carbon charge. It had a very significant upward slope in terms of what the carbon charge was expected to be going out to 2030. So it was really a lot of those higher values, even though they're discounted, showing up as benefits that had the program traditionally being strongly positive. And with the removal of that, it's mathematical. You know, you take a large portion of that. If we were to break down those benefit streams previously, a very large portion was because of the federal carbon charge.

J. WASYLYK: Okay. Thanks for that. So then on a go-forward basis, if the program in '27 plus, let's say, remained -- were revised to strictly be a building envelope program where insulation and air sealing were predominantly the focus, is there no scenario, then, that the program would be cost-effective under the current parameters and TRC+ test?

C. FERNANDES: We have to go back to the fact now that it's across all fuels being delivered as a common program. So it probably depends on how that is evaluated. As a single program offering, if it's evaluated across all fuels, that would be a very different story relative to simply natural gas.

J. WASYLYK: Sure. But if it was just natural gas?

C. FERNANDES: I think our view right now without a -- without a significant change in the avoided costs, I would say it's likely to say no, that it wouldn't be positive. Having said that, the avoided costs have -- at several points in the past had fairly dramatic changes. I mean, even including the adjustment that Mr. Johnson has mentioned that we made working with the IESO on the electric avoided costs, they're substantially lower than what we had used traditionally. And those building envelope items do have electric avoided costs included as well. So that has a dampening impact. So it depends on how those avoided costs evolved over time.

J. WASYLYK: Yeah. Okay. No, thank you, Mr. Fernandes. And actually moves to my last area of questions. Just a few general things related to avoided costs. And as you're just discussing there, without a major change, you know, it might hold things relatively constant, and maybe then you can just confirm, conceptually, the impact of the natural gas avoided commodity costs on TRC+, and if there was an increase to natural gas avoided costs or an increase to commodity costs just generally for natural gas, that that has a positive impact on cost-effectiveness?

C. FERNANDES: Correct.

D. JOHNSON: Yes, that's correct.

J. WASYLYK: Great. Okay. And you had just mentioned to have the discussion on electricity-avoided costs, so I think we can move past that. My friends discussed discount rate already with you, so we'll move past that.

Inflation rate. An inflation rate of 3.62 percent was used as part of the calculations here as shown on the last tab, EGI "2025 avoided costs."

Can you discuss how the 3.62 percent was calculated, and maybe confirm, is this the four-quarter rolling average GDP based on the four-quarter rolling average GDP IPI?

D. JOHNSON: Yes, that's correct. That's out of the framework. That's where that value comes from.

J. WASYLYK: Can you undertake to provide that calculation of inflation?

D. JOHNSON: Yeah, I don't see why not.

J. WASYLYK: Okay. Thanks. Yeah, I thought it was --

D. JOHNSON: Maybe just before we take that undertaking, in the possibility of avoiding it, what I will say is the inflation factor actually doesn't really impact the TRC anymore or the TRC calculation because you'll see values are either listed as nominal or real. Real values only use the 4 percent discount rates. The nominal values are actually increased by the inflation rate, and then discounted down using the nominal discount rate. So if you change the inflation value, it doesn't actually change the avoided cost.

That's different than the past because avoided carbon costs were nominal, but the government had specified what they were for -- out until 2030. So that was an example where the inflation factor actually -- if you change that value, it actually would change the avoided costs. So I thought I would share that in the possibility that with that information, you would go, oh, we don't actually need that information.

J. WASYLYK: That is good clarification, and I will say that we don't need that information. Thanks for providing that. Mr. Murray, we do not need the undertaking.

And maybe just the last question here, and then we can all get on, and maybe some people will leave for some vacations.

You discussed with Ms. Girvan, I think, and with Ms. Simon about some of the benefits of the IESO-Enbridge collaboration and one-window approach. And it may come out through the agreement they provide, but can you maybe just speak to any of the cost efficiencies that may be gained immediately or may be expected to be realized later on related to promotion and marketing costs and any other administrative efficiencies that may be achieved through the collaboration?

C. FERNANDES: So for the Home Renovation Savings program, I think it would be tough at this moment for us to quantify specifics, but we do expect there will be some efficiencies. And, Mr. Wasylyk, I'm going to try and draw a differentiation between cost efficiencies where you're through avoiding duplication of activities between the IESO and Enbridge, we -- you know, and having an appropriate cost-sharing mechanism between the two organizations, you would expect to see costs to come down over time. I would say they're modest, in all likelihood, because both organizations are quite large and at scale.

Those are tough to quantify right at the moment because we're in a state of flux with launching the program and ramping up. The program was launched in January, but we didn't have necessarily all of the back end things in place when we opened it up to consumers. So there is a lot of the set-up costs that are going to land in the first half of this year. And at times, it's very difficult to decouple that from your ongoing operational costs. So it's a rather challenging thing just from a practical point of view. But I do expect some of those to exist, and we'll see them over time. And the example of, you know, having one organization host the website rather than two clearly over time should lead to benefits for ratepayers on both sides of the fence.

But I do believe that the -- you know, in Ontario, speaking about -- you know, we're before the Ontario Energy Board. Now that there's a single program, harmonized across all fuels, we do hope that that increases participation and trust in the brand over time. We do know that within the industry -- Enbridge has experienced it, I believe the IESO has experienced it -- that there is many parties out there that like to mirror some of the conservation programming and they're not -- they're doing that in order to benefit their own business and -- right up to and including consumer scams. Having a single, central place which can have trust built for consumers helps to avoid a lot of those types of things. And there are -- you know, it's unfortunate those things happen, but they do. So I believe there is a, you know, strong value for consumers there.

And then it will take time for that brand to be built through the marketing efforts that the IESO and Enbridge are undertaking, but we should have stronger participation and a simpler view for Ontarians to be able to understand where to go, what's available, and how they can, you know, understand their energy consumption regardless of fuel and how they can upgrade and make their homes more efficient. So I think that is the value, and it's going to be tough to quantify that. And it's not a single-point journey. I think it is going to take some time for that to truly yield the benefits.

But that was the point of the direction from the minister's office was this is what consumers were looking for is they want to see the one place, where do I go so I know I'm not going to have someone abuse me, I don't get scammed, but also how do you bring it together to make it simple for consumers so that they can actually participate.

J. WASYLYK: Okay. Thank you, Mr. Fernandes, Mr. Johnson, Ms. Adams, appreciate it. Those are all my questions.

L. MURRAY: Thank you very much, Mr. Wasylyk. And more broadly, thank you very much to all the participants here today. We got through everything in a day with a little bit of time to spare.

So just a reminder, I believe the answers to the undertakings are due -- is it next Friday, I believe? Or is it -- Josh, can you tell me when that is?

J. WASYLYK: You put me on the spot.

D. O'LEARY: I believe it's August 8th.

L. MURRAY: It's August 8th.

D. O'LEARY: If that's next Friday, then you're correct.

L. MURRAY: Okay. Excellent. So they're due on -- no, it's not next Friday.

D. O'LEARY: It's a week --

L. MURRAY: It's a week next Friday, two weeks Friday.

D. O'LEARY: Yeah.

L. MURRAY: And with that, I would like to thank everyone for their participation here today and have a great end to the day for everyone.

# --- Whereupon the proceeding adjourned at 4:32 p.m.