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Toronto Hydro-Electric System Limited

Application for energy distribution rates beginning January 1, 2025

Technical Conference held in person and by videoconference from 2300 Yonge Street, 25th Floor, Toronto, Ontario, on Wednesday, April 10, 2024, commencing at 9:30 a.m.

TECHNICAL CONFERENCE

A P P E A R A N C E S

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Wednesday, April 10, 2024

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

TORONTO HYDRO-ELECTRIC SYSTEM LIMITED - PANEL 1, RESUMED

Rei Marzoughi

Kirk Huntley

Matthew Higgins

Githu Mundenchira

Sushma Narisetty

MR. MURRAY: Good morning, everyone, and welcome to day three of Toronto Hydro's technical conference. Before I hand it back over to OEB Staff to continue the questions of panel 1, I understand, Mr. Keizer, there are a couple of preliminary issues you would like to address.

PRELIMINARY MATTERS:

MR. KEIZER: Yes. The first preliminary issue is I believe there are a couple of corrections arising from the examination of yesterday.

MR. HIGGINS: Thanks, Mr. Keizer. So just, yes, just a couple of minor corrections after reviewing the transcript. From day one, I did have an exchange with Ms. Girvan regarding the assets-past-useful-life measure and noted at the time that, if we were to go back to 2015, the assets-past-useful-life metric may have been closer to 30 percent back then. We went back and checked, and the specific number that we had at the time for as of 2015 was 26 percent. I just wanted to correct that.

And yesterday, in an exchange with Mr. Brophy, Mr.

Brophy asked the question -- I am just paraphrasing: What are the metrics -- are the metrics on the current proposed performance scorecard all different, distinct from the metrics that were on our custom scorecard in the last, in this current rate period, the previous rate application?

And my response was subject to check. I believe that was a correct interpretation. However, after a closer look, the TRIF metric, the total recordable injury frequency metric, and the SAIFI defective equipment metric are in fact identical between the two periods. So I just wanted to correct that, as well.

MR. KEIZER: Thank you, Mr. Higgins. We have two other preliminary matters. Through the course of the last few days, Mr. Rubenstein and I have had some discussions about an undertaking that Toronto Hydro could give, and it arose from Mr. Rubenstein's examination.

And so the first related to third-party reports, that a further disclosure, you know, in addition to what's already been disclosed for external/internal audits, and assets as well as benchmarking. And so we have settled on the wording of an undertaking, and Toronto Hydro will undertake to provide any third-party reports assessing the effectiveness of distribution capital and maintenance planning and execution processes that Toronto Hydro relies upon, in whole or in part, to plan and deliver its plan.

MR. MURRAY: That will be marked undertaking JT3.1.

UNDERTAKING JT3.1: TO PROVIDE ANY THIRD-PARTY REPORTS ASSESSING THE EFFECTIVENESS OF DISTRIBUTION CAPITAL

AND MAINTENANCE PLANNING AND EXECUTION PROCESSES THAT TORONTO HYDRO RELIES UPON, IN WHOLE OR IN PART, TO PLAN AND DELIVER ITS PLAN.

MR. KEIZER: And we also had discussions during Mr. Rubenstein's examination, with respect to project variances. With respect to program execution, some of the work is packaged into projects, and Mr. Rubenstein sought an inquiry with respect to various projects and the variances and any rationale related to those variances. So what we, Toronto Hydro, have agreed to provide is a list of projects that are greater than $5 million and those that show a variance which is either a plus-20 or minus-15 percent.

MR. MURRAY: That will be undertaking JT3.2.

UNDERTAKING JT3.2: TO PROVIDE A LIST OF PROJECTS THAT ARE GREATER THAN $5 MILLION AND THOSE THAT SHOW A VARIANCE WHICH IS EITHER A PLUS-20 OR MINUS-15 PERCENT (RELATING TO DISTRIBUTION CAPITAL).

MR. KEIZER: And just a note that that relates to distribution capital.

MR. MURRAY: I want to canvass the room to see if there were any other preliminary issues. Seeing none, I will pass things over to Ms. Defazio to continue.

EXAMINATION BY MS. DEFAZIO (CONT'D.):

MS. DEFAZIO: Hi. Good morning, panel. Yesterday, we had an undertaking about --

MR. RUBENSTEIN: Sorry, sorry. Did you -- are those undertakings marked?

MR. MURRAY: Yes, I gave the marks 3.1 and 3.2.

MR. RUBENSTEIN: Sorry.

MS. DEFAZIO: Okay. Yesterday, we had an undertaking related to the depreciation rate for GPMC project and the RGCRP funding. Can we have a second undertaking to verify the depreciation rates in the RGCRP models for both the HONI and the ES for 2023 going forward?

MR. MUNDENCHIRA: Yes.

MS. DEFAZIO: Thank you.

MR. MURRAY: That will be undertaking JT3.3.

UNDERTAKING JT3.3: TO VERIFY THE DEPRECIATION RATES IN THE RGCRP MODELS FOR BOTH THE HONI AND THE ES FOR 2023 GOING FORWARD.

MS. DEFAZIO: So, from what we've been discussing, Toronto Hydro's program-based capital programs, it forecasts cost on a unit-cost basis. How are these unit costs developed?

MR. HIGGINS: There's not necessarily a uniform methodology. We do -- because it depends on the nature of the asset class, the type of information we have, and, ultimately, at what level of granularity we're forecasting. So, for something like a stations program, for example, it would be more like a project-based estimate or something closer to it; there would be more variability based on location, at least, whereas with something like a Horseshoe renewal program, we are working more with historical average values, and then there may be some judgment involved in making adjustments based on whether the future assets that we are looking to replace may in some way be different, but those adjustments are usually pretty limited.

MS. DEFAZIO: Are these unit costs anywhere on the record?

MR. HIGGINS: Sorry, we're just conferring because we're responsible for different programs. I do think it depends on the program, so we would have to go program by program just to see which ones we've published and which ones we haven't, but there are a number of programs where those unit costs are provided.

MS. DEFAZIO: Okay. Could we get a summary table for those unit costs for 2025 or that were used for the estimates of the forecast period?

MR. HIGGINS: Yes, that should be fine. Yes.

MS. DEFAZIO: Thank you.

MR. MURRAY: That will be undertaking JT3.4.

UNDERTAKING JT3.4: TO PROVIDE A SUMMARY TABLE FOR THOSE UNIT COSTS FOR 2025 OR THAT WERE USED FOR THE ESTIMATES OF THE FORECAST PERIOD.

MS. DEFAZIO: In looking at the historic work done for 2020 to 2023, in some of the programs it's a little challenging getting the volumes or the units done within the program costs for each year. Could you break that out for us, as well?

MR. HIGGINS: You're looking specifically for each year or just the overall five years? Because we have published a master table with the sum of the five years, in the interrogatory response, which I could point you to.

MS. DEFAZIO: Okay, sure. If you could, point me to that, please.

MR. HIGGINS: Just one moment. So I believe it's 2B-AMPCO-42, and there should be an appendix. If we can, just check that. Yes, Appendix A.

MS. DEFAZIO: So, if we were to take the sum of the programs, the capital costs for those years, divided by those numbers, we would get unit costs? Okay. Would that be correct?

MR. HIGGINS: There may be some nuances there. The math could be done, obviously, if the costs are broken out in a way that's consistent, sort of assigned to each of these unit classes. One could do that math and, in some cases, it may or may not be valid.

In terms of how we actually develop these costs, that is -- I guess my note of caution would be, in some instances, it's based on particular unique factors for each particular unit, like I gave the stations example. You know, you could come up with an average unit cost, but more appropriate would be looking at each individual unit, for example, and there's different caveats like that that I would just want to put around doing that kind of a simple exercise.

MS. DEFAZIO: For your major asset classes, could you do that for us, so understanding, right? Poles, you could have a pole with a riser or pole with a transformer, or pole with one circuit or three circuits, but what's the average costs? You know, I don't want them broken out into those categories, but we understand there's a variability in that, but what would be the average unit cost for some of your major assets broken out under these programs?

MR. HIGGINS: So, I think maybe that might be captured by the earlier undertaking, which is to provide the unit costs assumptions that went into the program, so as part of that, we can try to provide something that is responsive to what you just asked.

MS. DEFAZIO: Okay. Thank you. If we could please pull up 2B-Staff-151, and go to C. So, here we have the health scores and the probability of failure scores for wood poles and station transformers. And why is the correlation between the health scores and the probability of failures so different for different type of asset types?

MR. HIGGINS: So, just at a high level, I believe there is another interrogatory response, we don't have to pull it up, but where we explain the general nature of the analysis that goes into determining the probability of failure based on condition. And this ties a little bit to what we were discussing yesterday about failure curves. It, ultimately, that value is going to be tied to however we define the actual failure mode, so what failure modes are we actually calculating probability of failure for.

And for the health scores, that's a combination of what we call incipient, degraded, and catastrophic failures, and they have different probabilities, and those probabilities vary depending on the asset class and exactly how it fails and how often those failure modes occur. So, what you're seeing here, really, is just a reflection of how often the defined failure modes occur for those assets, but, you know, in a way that's correlated with condition.

And, you know, and what ends up happening is once these probability of failure are combined with the cost of intervening upon that failure, it all sort of evens out. So, the kinds of failures that would happen more often with station power transformers, for example, because there's a higher probability of failure there, are less costly to address, whereas the probability of failure of, you know, our wood poles don't catastrophically fail all that often, but when they do it's a major issue, so there's more to it, but that's, essentially, the difference that you're seeing there.

MS. DEFAZIO: When Toronto Hydro undertakes risk analysis for equipment failures, does it use the health index values as an input or the probability of failure for that specific asset class?

MR. HIGGINS: So, when planners are assessing risk for the purposes of scoping a project, they're going to be looking at the actual health score. So, like, even more granular than just the health index, they're not going to decide on the basis of whether it's HI5 or HI4, they're going to look at the actual underlying health score as part of that analysis, and they may even look at the specific maintenance information that underpins that health score to get even more specific, alongside other factors that we've mentioned elsewhere in the evidence.

Where the probability of failure values will come in in the future is in a couple of places, one is within our engineering asset investment planning tool, which is our Copperleaf implementation. It will be used to determine the value of projects. And then there's a number of other places where it could come in where we're contemplating including it as well in different kinds of modelling. But one of the other tools that we are developing as part of continuing to implement the overall CNAIM, CBRM, approach, the condition based risk management approach, would be risk matrixes for asset class. So, essentially combining health and criticality together into a more holistic quantitative view of asset risk.

MS. DEFAZIO: Could you provide the risk matrix that you used for your risk analysis of equipment failures?

MR. HIGGINS: We're still in the process of creating those matrixes.

MS. DEFAZIO: Okay. So, talking about pole inspections. The useful life of wood poles is proposed to be changed from the Concentric report from 40 to 45 years. So, why is there a need, in light of that, to increase the inspection cycle times for wood poles?

MS. NARISETTY: If I can take us to our response to IR 2B-PWU-10. Here we provide the different reasons for why we would like to adjust the inspection cycle for wood poles from a 10 year cycle to an 8 year cycle. And to summarize, it will help us better refine our ACA on the wood poles to support a condition based maintenance. We have an increasing volume of wood poles that are past their useful life, and also to help us target inspections on these poles, because we have a significant number of them in HI4 and HI5 condition.

MS. DEFAZIO: So, is the increased inspection on all wood poles or just the wood poles that are in a past useful life or in a deteriorated condition?

MS. NARISETTY: At this point we want to do it for all the wood poles, and once we gather enough data, it will help us move towards a more targeted inspection cycle. But before that we need to gain more data. Because 10 years is too long of a cycle for us to have, you know, good meaningful data to target these inspections better.

MS. DEFAZIO: And is your wood poles replacement budget primarily based on the useful life of wood poles or the inspection results?

MR. HIGGINS: You're asking about the renewal side of it, the replacement pacing?

MS. DEFAZIO: Yes.

MR. HIGGINS: Yes, okay. No. So, that budget is primarily based on two things. One is if we want to get really specific about it, it would be how the current health scores have been trending with respect to the level of investment, and what we know about how that investment has been allocated over history. We also look at, to some extent, forecasted deterioration of health scores, and then there are a number of other factors which we discuss in 2B-

SEC-44, that are not necessarily related to probability of failure but are related to criticality, performance, as well as various system design considerations.

MS. DEFAZIO: Okay. I want to talk about feeder loading in general. What does Toronto Hydro see in terms of minimum loading on feeders, around what time of day is your feeder loading at a minimum? We've talked a lot about peak loads, but what about minimum loads?

MR. HUNTLEY: Ms. Defazio, based on the best information we have, that tends to occur on the weekends.

MS. DEFAZIO: Okay. During the week, would it be during the day or overnight? Afternoon, mornings?

MR. HUNTLEY: Subject to check, it would be overnight.

MS. DEFAZIO: Okay. Thank you. When we look at the answer to 2B-Staff-165, I'll just summarize it because there's a bunch of tables here. But approximately 110 megawatts of 305 megawatts of DER currently connected to Toronto Hydro's system are solar.

Do you have any projections or insight into the amount of future DER connections to your system? Would they be solar or other technologies?

MR. HUNTLEY: Thanks for the question, Ms. Defazio. Based on forecasts, existing forecasts, by volume of connections, the predominant technology is expected to be solar.

MS. DEFAZIO: Okay. And what's the expected production of solar DERs during the nighttime, which is your minimum load?

MR. HUNTLEY: At this time, we don't have a forecast for that.

MS. DEFAZIO: Okay. If we can go to Staff -- 2B-Staff-202, please, part A, the answer. So in this answer, Toronto Hydro says that replacing the population of direct-buried cable in dirt would result in a SAIDI and SAIFI for defective equipment to deteriorate by 6 percent and 5 percent versus including in dirt and in duct.

I just want to clarify, is that considering the other programs that have happened? So that -- sorry, that 5 and 6 percent increase that you would get by replacing the cables and ducts, is that net or gross of the other programs?

MR. HIGGINS: You mean of any other programs that may replace cable?

MS. DEFAZIO: That may improve reliability.

MR. HIGGINS: Yeah.

MS. DEFAZIO: For example, your FLISR program would be -- you said -- would improve reliability by 20 percent for SAIDI and 25 percent for SAIFI. If you don't replace the cables and ducts, does that mean it would be -- is that 6 percent decrease accounting for that increase due to FLISR? Or is it a raw 6 percent?

MR. HIGGINS: Right. So I understand the question. So the way that we did this was using the same model we used in all the other places in the evidence. So it is inclusive of -- essentially we held all other assumptions constant, and just dialled down all the things that staff asked us to dial down: the cables that are in duct, essentially.

And then our interpretation was basically what happens if you just focus on getting rid of all the direct-buried cable, which is the assumption that we have made here, so getting rid of all their remaining direct-buried cable, and not doing any other kind of cable. But everything else is the same.

So now, just one correction there: We are not expecting benefits from FLISR in this rate period.

MS. DEFAZIO: In the following...

MS. HIGGINS: It's in the following rate period, so it is more the assumptions around SCADA switches and reclosers that are built in.

So hopefully that answers your question; it is inclusive of all the other elements of the plan.

MS. DEFAZIO: So if you didn't do the other elements of the plan, would the deterioration due to just this program be higher.

MR. HIGGINS: Yes, because I don't know the magnitude exactly of that scenario, but theoretically, directionally, yes, because we are layering on the benefits of additional SCADA switches after all the other forecasts are developed, so it's basically an adjustment factor. So, yeah, if you took away the modernization benefits in particular, you would see even more deterioration, subject to actually running the scenario. Yeah.

MS. DEFAZIO: Okay. Thank you. Can we please go to the 2022 scorecard? That was the one I sent yesterday. Yeah. So we see on the top that the years for this are 2018 to 2022. And if you scroll down to the next page, please? It says -- sorry, can you go back to the top? Keep going. Sorry, this is the 2020, which is fine -- 2016 to 2020. Okay. Scroll down. And in 2020 it says -- 2020 is -- yeah, this page at the top. Okay.

It provides the document scorecard performance measures. Sorry, can I just see the title. Go up. The 2020 scorecard management and discussion. And then, under the scorecard, MD&A, in the second paragraph, it says, "For the 2020 reporting year", and it goes on.

If we go to -- so this is clearly talking about the results in the end year of the scorecard, like the last year shown. If we go to 2B-Staff-213, and go to the footnote?

And the footnote is referring to the serious electrical incident reporting. Your response states that there's a one-year lag in the reporting, and the scorecard relies on Electrical Safety Authority recording for the SEI metric, which has a one-year lag, which tells us that the reporting on the scorecard for the serious electrical incidents was for the year prior. I would just like to confirm that answer.

MS. NARISETTY: I believe so, yes.

MS. DEFAZIO: Okay. So the 2019 value was reported on the 2020 scorecard, and the 2020 on the 2021, and the 2021 on the 2022.

To the best of this panel's knowledge, because I know you are only responsible for certain areas, is there any other information on the scorecard that should be qualified or clarified or corrected in its reporting?

MS. NARISETTY: I don't think so. It's only this one.

MS. DEFAZIO: It's only this one. And why does the ESA reporting require there to be a lag in reporting on to the OEB?

MS. NARISETTY: I wouldn't be able to speak to that. We align with their timelines and, yeah, the communication with them, before we are able to report to the OEB on the MD&A scorecard.

MS. DEFAZIO: Okay. Thank you.

MS. NARISETTY: Yeah.

MS. DEFAZIO: If we go to 2B-Staff-219. We are looking for spending, reducing the currents or the impact of extended-duration outages. And the overhead resiliency segment targets reduction of extended-duration outages. Are there any other segments of the capital spending that target reducing extended-duration outages?

MR. HIGGINS: Apologies, Ms. Defazio. We're just kind of doing inventory here. So the one that most obviously fits, I think the answer to your question would be, the rear lot program. It is specifically targeted on difficult-to-access equipment, and we do see, we have seen very recently, actually, outages that last for -- it can be days, basically, on those parts of the system.

But more generally, when we're creating renewal projects, there is consideration in any program for the level of criticality of assets, and we will be targeting areas that may in general be vulnerable to lengthier outages.

Another asset class where outages are inherently lengthy, if we do see kind of those rare situations where multiple assets fail would be on the station system. And so, in a sense, we're also through that investment program targeting long-duration outages.

MS. DEFAZIO: Thank you. If we could go --

MR. HIGGINS: Oh, sorry. I forgot an obvious example, as well, which is the downtown contingency part of the system enhancements program which is focused on sort of catastrophic events and N-2 events in the downtown, so that would be another example, as well. Sorry for interrupting.

MS. DEFAZIO: Thank you. Could we go to Exhibit 2B, E6, and we're going to go to page 42. Okay. Can you scroll down to the text, please, on page 42? I don't know if we're in the right system right now, E6.6. Oh, sorry about that; E6.6, and down to page 42. Okay. Thank you.

If we can go to line 13, I'll just read it.

> It says: "Complexities involved in the transformer stations segment contributing to increased cost include the procurement of unique TS switch gear which meets Toronto Hydro's stringent safety and reliability requirements."

Why do you specify unique equipment, different from your peers, when it increases costs?

Or can you just explain what those requirements would be, different from your peers, that would increase the costs?

MR. HUNTLEY: Thanks, Ms. Defazio. Specific to the stations renewal program, Toronto Hydro has utilized arc-resistant switch gear historically as part of its renewal program. It's a safety initiative.

With respect to the stations included in the 2020 to 2024 program and carried over to the 2025 to '29 program, the uniqueness is that this is small-footprint type C switchgear, meaning that it is compact because the stations that we're targeting for renewal have a very, very small footprint. So the marketplace has had to conduct significant R&D work in order to get tested and certified switch gear that is appropriate for this application.

MS. DEFAZIO: Okay. And what voltage? Are you talking about the 27.6?

MR. HUNTLEY: This is primarily downtown, and it is at 13.8kV.

MS. DEFAZIO: Okay, so there is no commercially off-the-shelf, small-enough, arc-proof switch gear to fit your old stations?

MR. HUNTLEY: That is correct.

MS. DEFAZIO: Okay. Thank you. If we can, please go to 2B E4. So it's E4, tab 2, section 1. It's just one line, and it just says that there are 94,000 suite meters. Sorry, I have E4, Tab 1, section 1, page 39.

MR. KEIZER: Sorry. We're in Exhibit 2B. Is that correct?

MS. DEFAZIO: E4, sorry, E4, T2 -- it's just one line. It says there are 94,000 suite meters. My question just to the panel is: Are there 94,000 suite metering units or 94,000 suite metering customers?

MR. HIGGINS: That might be a better question for panel 2.

MS. DEFAZIO: Panel 2?

MR. HIGGINS: Yes.

MS. DEFAZIO: Okay. So, if we could, go to IR response 4-Staff-293. So, looking at the corrective maintenance for the Delta-Wye work, the costs -- I understand this is a new program, and the costs have risen to $2.1 million in 2023. I'm just wondering what portion or percentage of the total impacted services have been addressed already.

MS. NARISETTY: I don't have the number off the top of my head, but we can take an undertaking for that.

MS. DEFAZIO: Thank you.

MR. MURRAY: That will be undertaking JT3.5.

UNDERTAKING JT3.5: REFERRING TO 4-STAFF-293, CORRECTIVE MAINTENANCE FOR DELTA-WYE WORK, TO PROVIDE THE PORTION OR PERCENTAGE OF THE TOTAL IMPACTED SERVICES HAVE BEEN ADDRESSED ALREADY.

MS. DEFAZIO: So is this program expected to continue, then, in the next couple of years?

MS. NARISETTY: That is correct.

MS. DEFAZIO: Thank you. I'm not sure if this is a panel 1 or panel 3 question, so I'll just throw it out there. In description of your process for acceptance of assets constructed by or maintained by contractors, Toronto Hydro says that third-party auditors performed unannounced spot audits for quality and safety purposes. I'm just wondering: Who are the third-party auditors?

MS. NARISETTY: I think that question is best answered by panel 2.

MS. DEFAZIO: Two or three, would you know?

MS. NARISETTY: Two.

MS. DEFAZIO: Two? Okay. Thank you. I would like to talk about the worst-performing feeder program, and we can go to IR 2B-Staff-293, page 4 -- I'm sorry, 239.

Toronto Hydro says its worst performing feeder program will face upward cost pressures due to better visibility provided by the new outage management system. Can you explain to me how the new outage management system increases the number of worst performing feeders, like, doesn't it just record the outages?

MS. NARISETTY: It does record the outages. However, because the system is more accurate, it is capturing more of the outages that are actually happening out in the field, and because the criteria for what constitutes a worst performing feeder is based on the number of outages a particular feeder experiences. So, previously, you know, if a feeder was being captured as having, let's say, five outages, then it would not have made the cut for the worst performing feeder list. But now, because of the additional sensitivity of the outage management system, it's now capturing the actual outages that are happening in the field, and perhaps now they are having eight outages in a year. That will make the cut for what is -- what qualifies as a worst performing feeder and hence the upward pressure.

MS. DEFAZIO: So, just to clarify, FESI-7, which is one of your criteria, is feeders experiencing seven or more sustained interruptions, and those interruption are greater than a minute to be a sustained interruption. And FESI-6 which is your other criteria is a feeder with a large customer that has six or more sustained interruptions correct?

MS. NARISETTY: Correct.

MS. DEFAZIO: Okay. So, before this new outage system, how was Toronto Hydro informed of a sustained outage on its system?

MS. NARISETTY: So, for larger scale outages, we have visibility [audio dropout] and our SCADA system captures these outages, and for more localized outages, we would rely on customers calling in.

MS. DEFAZIO: And in those cases, that would be a sustained outage, would you have logged those outages?

MS. NARISETTY: In either of these cases, I think that would be better answered by panel 2.

MS. DEFAZIO: Okay. So, if you have -- what I'm getting at is: Before when you had a different outage management system, if you had a sustained outage, my assumption was before you would have recorded it in your tracking system, and now you're recording it in a different tracking system. It wouldn't just be the feeders experiencing sustained interruptions that would be increasing, but your overall reliability numbers increasing because your weren't recording them all before?

MR. KEIZER: I think the detail with respect to this system and its use and operation is well within the ambit of Mr. Smart, who is appearing on panel 2.

MS. DEFAZIO: Okay. Panel 2. Thank you. And, yes, thank you very much, panel. That's, I believe, the end of OEB questions for panel 1, thank you.

EXAMINATION BY MR. RUBENSTEIN (CONT'D.):

MR. RUBENSTEIN: I'm wondering if I can just ask a follow-up question to an answer that Mr. Higgins gave, really, at the beginning of today. You were explaining to Ms. Defazio about how you derived the 2025 unit costs, and I'm interested in the programmatic programs, not the network ones which are more project based. And you said that they were -- I think you were talking in a general sense, you were saying that they were sort of based on historic. I wonder if you can be more specific for the programmatic, the Horseshoe, the overhead, the overhead program, the -- and then, I think, the Horseshoe overhead and Horseshoe underground. Can you be a little more specific of how you're driving the 2025 unit costs?

MR. HIGGINS: We can articulate that in the interrogatory response, but, you know, essentially because those are what we would call parametric estimating programs, because, again, we don't have the -- we're not estimating on the basis of projects, the best information we have would be, you know, looking at large numbers of past accomplishments and the cost of those accomplishments and averaging them out, essentially. And so, we're looking at, essentially, our in-service data from the past, and we're stripping certain costs out and just kind of making sure that they're appropriate for a go-forward estimating basis, and then leveraging those costs. And it may be slightly different depending on the asset class or the particular program exactly what we do, but that's the general approach.

MR. RUBENSTEIN: Can you in the response, I think there's an undertaking you're providing to give them, can you specify what years, and where that information is coming? I'm assuming you're forecasting inflation amount that you're building into that as well?

MR. HIGGINS: So, that would be an after the fact application. So, we ask our planners to sort of ignore inflation, ignore any overheads that get allocated to capital projects, it's just pure sort of unit costs, and then we make adjustments after to account for those things.

MR. RUBENSTEIN: On a program basis or on -- do you sort of take that unit costs and say, okay, now we're going to increase it by X percentage a year?

MR. HIGGINS: No, on a program -- yes, on a program basis.

MR. RUBENSTEIN: Okay. Thank you. It would be helpful in that undertaking if you do provide the specifics of how you have derived those unit costs.

MR. HIGGINS: We can do that, yes.

MR. RUBENSTEIN: Thanks.

MR. MURRAY: That takes outcomes the end of panel one, I realize it's a little bit early, I don't see panel 2 here, so perhaps we should maybe take our morning break now for 10 minutes. And then we'll sort of probably take a bit of an early lunch and that, and come back in 10 minutes. And we will -- so let's come back at 10:30 with panel 2.

MR. KEIZER: If you just give us maybe 15 minutes for us to get everybody mustered?

MR. MURRAY: Sounds good. 10:35 a.m.

--- Recess taken at 10:19 a.m.

--- On resuming at 10:38 a.m.

MR. MURRAY: Welcome back to the technical conference of Toronto Hydro's application. We now have before us Panel 2, Mr. Keizer, perhaps I could pass it over to you and you can introduce your panel.

MR. KEIZER: Thank you, Mr. Murray. Panel 2 is now in place, so maybe what I can ask the panellists to do is state their name and their position. And we'll start at the end of the panel here, with Mr. Nasso, please.

MR. NASSO: Good morning, everyone. My name is Sandro Nasso, general manager of external capital projects and external programs.

MR. SMART: Good morning, Dan Smart, general manager of distribution stations and grid operations.

MS. WOO: Humie Woo, vice president information technology.

MR. HOMSMA: Good morning, Kees Homsma, Kees-Jan. I go by "Kees", director of facilities and fleet.

MS. PAGE: Good morning. Evelyn Page. I am the director of customer care operations.

MR. KEIZER: Just so the panellists are aware, they share a microphone. So when you turn off, you turn off both microphones.

MS. PAGE: Is mine on?

MR. KEIZER: If the light is on, the microphone should be on. It was off when you stated your name.

MS. PAGE: Hi. Evelyn Page, I am the director of customer care operations.

TORONTO HYDRO ELECTRIC SYSTEM LIMITED - PANEL 2

Sandro Nasso

Dan Smart

Humie Woo

Kees Homsma

Evelyn Page

MR. KEIZER: Thank you, I have no preliminary matters with respect to panel 2, so they are available for questions.

MR. MURRAY: Thank you, Mr. Keizer. First on the list is Mr. Elson from Environmental Defence.

EXAMINATION BY MR. ELSON:

MR. ELSON: Good morning, panel. As Mr. Murray said, my name is Kent Elson, and I represent Environmental

Defence. I'll be very brief, just on one question that was bumped over from panel 1, and that is relating to 1B-ED-03. And this was an interrogatory where we had asked Toronto Hydro which heating equipment it would be replacing, and what it would be replacing it with. And the answer was that for end-of-life replacements, you would be replacing fossil fuel heating with electric or hybrid.

And I just wasn't clear if you are saying that is for all of the replacements of fossil fuels, fossil fuel heating equipment. Is that the case, for all fossil fuel equipment, you either go with electric or hybrid?

MR. HOMSMA: Yes. I think it would be smart to look at the evidence 2B, E, 8.2.2.3.3. It's page 19. That's where we share our decarbonization plan for facilities. Using our -- and also 1B-Staff-97G, we reference all the different, you know, narratives within the evidence to support that answer.

At a very high level, we are focusing at 500 Commissioners; that's where all of our natural gas equipment is expected to reach end of life or already at end of life. And we will -- our goal is to replace them with electric appliances, where possible.

MR. ELSON: Okay. By "where possible", you just mean if it's sort of technically feasible?

MR. HOMSMA: Yes, sir.

MR. ELSON: Okay. You said in the interrogatory response, electric or hybrid. And you seem to be saying now electric, which to be honest -- which makes a lot more sense to me.

And so is your answer that you will be replacing it with electric, where that is possible, as opposed to equipment that can use gas?

MR. HOMSMA: At 500 Commissioners, it will be electric.

MR. ELSON: And in other cases, it may be hybrid? Is that what you are saying? Or, in other cases, it will be electric?

MR. HOMSMA: So, for this rate period, we are focusing at 500 Commissioners. So it will be electric.

MR. ELSON: Got it. Okay. And I guess the only other question would be what about other equipment other than in 500 Commissioners? It seemed like there were other pieces that are coming to the end of their life. What about those?

MR. HOMSMA: Yes. So we are committed to our net zero strategy between now and 2040. You will see that we have two brand new work centres at 71 Rexdale and 715 Milner. They have brand-new equipment. They are BOMA Gold buildings.

We are allowing those assets to depreciate their normal life. They are working well, and we do plan to tackle those in future rate periods to meet our net zero goal.

MR. ELSON: Okay. And in your answer, when you said electric or hybrid, is it that the answer -- you know, I shouldn't rely on that answer? I am just debating whether

I need to have a discussion with you about putting in hybrid, because it seems to me, if you put in hybrid heating, then you are still using fossil fuels beyond 2040, which is your target not to.

It seems to me what you are saying is if you can do electric, if it's technically feasible, that's what you'll do. Is that what you're saying?

MR. HOMSMA: Yes, sir.

MR. ELSON: Okay. That's good for me. Thank you, very much, Panel.

MR. MURRAY: Thank you, Mr. Elson. Next on the list is the School Energy Coalition. Mr. Rubenstein, is it you or is it Ms. Scott?

MR. RUBENSTEIN: It will be both of us, but I believe Ms. Scott will lead us off? Are you there?

MR. MURRAY: Apparently she is, but her camera and mic are off.

MR. RUBENSTEIN: All right. How about I will go first? Hopefully, that can be resolved. I will just send her an email while I am doing this, in case she is having some technical issues.

MR. MURRAY: Yes. We will follow up with her.

EXAMINATION BY MR. RUBENSTEIN:

MR. RUBENSTEIN: I just want to address a couple questions that were punted to your panel. And the first one is with respect to 2B-SEC-34, appendix A. And this is the asset management group assessment part of the ISO 550001 gap analysis. And I asked a question on page 9, under clause 6.1 --

MR. MURRAY: I think the panel is maybe having a little difficulty hearing you, Mr. Rubenstein.

MR. RUBENSTEIN: Sorry.

MS. WOO: There's a fan behind us, so it is a little hard to hear you.

MR. RUBENSTEIN: I apologize. Let me first address a question that was punted to your panel with respect to this document here. And the first -- in this document, I had asked, it references under clause 6.1, "Project status reports." And I wanted to ask, what is that exactly?

MR. NASSO: So a project status report is a PowerPoint template that has a number of items in there that really provides management tracking of a project or initiative.

MR. RUBENSTEIN: And are these -- are they used for all projects? Or?

MR. NASSO: No, not for all projects.

MR. RUBENSTEIN: When are they used.

MR. NASSO: It depends on the business unit's need. We could use it for various strategic-type projects, or other initiatives. It is really a standardized template that kind of helps us provide a presentation to provide a status update.

MR. RUBENSTEIN: Thank you, very much. Can I ask you now to turn to 2B-SEC-55. Here, we asked you a number of questions with respect to the capital program.

In part D, we had asked you to just explain the contractual arrangements Toronto Hydro has with its major third-party contractors. If you flip to the next page, the response says, or part of the response says:

"Toronto Hydro continues to utilize a unit price contract management system to ensure cost effectiveness and containment."

What is the unit cost contract management system?

MR. NASSO: So the unit price contractor management system is assembled units of work for third parties. So the assembled units of work may come in the form of either civil, electrical, or design, and what it does is explains the nature of the work and what the costs will be. It's a set cost.

MR. RUBENSTEIN: And so, just to make sure I understand, when you're determining to give work to a contractor to do a project, essentially, there's a unit cost to do that work?

MR. NASSO: There's a unit cost. There are probably 20,000 units, so there are various units that would be used to get the estimate.

MR. RUBENSTEIN: Okay. And so, for example, if you're building a pole line --

MR. NASSO: Right.

MR. RUBENSTEIN: -- there may be unit costs for each pole, you know, and it's at that granular level?

MR. NASSO: It is even more granular than that. It goes right down to where you are actually digging, in the sidewalk, roadway, and so forth, yes.

MR. RUBENSTEIN: Okay. In part E, we asked:

"Has Toronto Hydro undertaken any recent analysis regarding the cost effectiveness of in-house versus third-party contractors? If so, please provided analysis."

In your response, you point to the UMS unit cost benchmarking, but that compares your overall unit costs to other utilities. The question is: Have you done any analysis comparing Toronto Hydro internal labour resources undertaking a project versus having one of your external contractors?

MR. NASSO: So the question, if we go back to the question: Has Toronto Hydro undertaken any recent analysis regarding the cost effectiveness of in-house or third party?

MR. RUBENSTEIN: Sorry. So let me rephrase the question --

MR. NASSO: Okay.

MR. RUBENSTEIN: -- as what was meant, "versus a third party": Essentially, as I was mentioning, your own labour resources versus a third-party contractor doing the same work.

MR. NASSO: No, no formal analysis has been completed.

MR. RUBENSTEIN: And so do you know if it is, at a high level, let's say, for programmatic work, capital work, for example -- let's use that -- if it is more cost effective to use third-party contractors versus your own?

MR. NASSO: We have a rigorous procurement process where, when deciding on the contractors, they are the most cost effective, have the experience, capable, and have the resources to do the work. So, when we're deciding on the work going to those new contractors, those are the most cost-effective individuals that can do that work.

MR. RUBENSTEIN: But my understanding, and -- well, maybe I'm incorrect here. There is certain work that either sometimes it is Toronto Hydro labourers doing it and sometimes it's external labour doing it. Correct?

MR. NASSO: That's correct.

MR. RUBENSTEIN: And so have you determined or have you done any analysis or do you know who is more cost effective?

Which is cheaper to do the same type of work?

MR. NASSO: So I don't have an analysis that explains the differences, but I mean, as our program grows, there are a number of things that we do look at. So, again, before we issue the first piece of work, we make sure that our internal resource balanced, and the overflow goes to the contractors.

MR. RUBENSTEIN: But, just at a high level here --

MR. NASSO: Right.

MR. RUBENSTEIN: -- you have a piece of work --

MR. NASSO: Mm-hmm?

MR. RUBENSTEIN: Who is more, who is -- is it cheaper to have Hydro One labour doing the work or the external contractor doing the work?

MR. NASSO: It all depends. There are various factors when considering. Again, there are other factors like skill set, resource availability, being able to do the work when you actually need it. So there are a number of other factors along with cost that are decided when we issue that scope of work to either internal or external.

MR. RUBENSTEIN: I understand why you would -- in determining if you're going to give the work to external versus internal, there are lots of factors.

MR. NASSO: Yes.

MR. RUBENSTEIN: I'm just trying to understand, putting those aside for a moment, I'm just trying to understand on the cost.

MR. NASSO: So what I'm getting at is you just can't look at the cost because there are other important factors that play into being able to complete the work safely, with quality, and make sure we get it on time.

MR. RUBENSTEIN: And the reason I ask -- and let me just go to the question, but the reason I ask: If historically the mix -- in panel one, we talked about, and maybe you were listening at the end, about that costs are forecasted on a unit-cost basis, and they are based on historical costs.

But, if the mix, the future mix, is different than the historic mix -- I'm just trying to understand how that would affect --

MR. NASSO: So --

MR. RUBENSTEIN: -- what those future costs, if those future costs truly reflect the unit costs as derived.

MR. NASSO: It's a good question. What's important is that, you know, as our program grows, we do look at the various scopes of work and how we issue to either internal, external. We are always doing continuous improvement initiatives to take a look at which is the most cost effective. So, as we go on and continue to issue work, we are always looking to ensure that that scope of work is given to the most cost-effective either internal or external.

MR. RUBENSTEIN: All right. I think I saw Ms. Scott on the screen, so maybe I will turn it over to her, and then we can come back to some of my questions.

EXAMINATION BY MS. SCOTT:

MS. SCOTT: Oh, okay. Sorry about that. Hello, panel. My name is Jane Scott. I'm a consultant with the School Energy Coalition. Most of my questions are OM&A focused, so, if they are better answered by panel 3, please let me know.

Can we start with cloud computing, cloud solutions? I guess it is called different things in different places. Figure 14 and 15 in Exhibit 4-1-1, if we maybe could pull that up?

MR. MURRAY: Ms. Scott, it's Lawren Murray here. If you can, maybe speak up a bit. We sort of hear you, but you're on the cusp of almost being a little bit too quiet, so --

MS. SCOTT: Oh.

MR. MURRAY: -- if you can just speak up a little bit, that would be great. We're going to also try to turn up the volume here.

MS. SCOTT: Thank you. So I was referring to figures 14 and 15 in Exhibit 4-1-1. I don't have a -- oh, I do have a page number, page 55 of 57. There we go. So, in these two figures for cloud computing and then in the next one -- it calls it cloud solutions -- it shows for 2025 $5.9 million and then, by the time we get to 2029, an additional $2.2 million.

So my question is: Are all the cloud computing OM&A costs shown, including those 5.9 and the 2.2, shown in the IT OM&A?

MS. WOO: Yes, that's correct. The $5.9 million from 2020 to 2025 is in the IT OM&A evidence.

MS. SCOTT: Ah, so that 5.9 covers that whole period; it's not just for 2025?

MS. WOO: The 5.9 is the variance from 2020 versus 2025, so that's an increase of $5.9 million from 2020 to 2025.

MS. SCOTT: Right. Do we have anywhere in the evidence, each year, what the cloud computing actual and then forecasted spend is?

MS. WOO: If you can give me a minute, I think we do have an IR.

MS. SCOTT: Thank you.

MS. WOO: If I could ask you to refer to IR2-Staff-263, table 1. That shows a 2025 to 2029 forecast of our cloud implementation, and cloud subscription fees.

MS. SCOTT: So, those are all the OM&A files?

MS. WOO: These are all OM&A costs, that's correct.
MS. SCOTT: And do we have what's 2020 to 2024? And I appreciate that table, thank you for pointing me there.
MS. WOO: I do not believe we have it separated out into 2020 to 2024 for cloud. We do maybe have, subject to check, an aggregated cost for the five years in the current period.
MS. SCOTT: Well, maybe I'll come back to that, because I do have another question related to this. In 4-SEC-89, which provided the updated schedule 17 IT cost, it does say that it has been -- it takes the balances in the cloud computing DVA into account, and I was going to ask what that meant, whether they had been taken out or included in, or how did those costs factor into the costs that were in?
MS. WOO: Yes, you're correct. So, if we could refer back to IR2-Staff-263.
MS. SCOTT: Okay. And I should say, the person who is doing the work on the exhibits is doing a great job.
MS. WOO: Thank you. So, if you look at the line 10 there, an OEB released a letter regarding a new accounting order to establish a deferral account to record cloud computing implementation costs on November 2nd, 2023. So, the deferral account for some of the cloud computing we plan to do for 2024, not any time before November 2nd, 2023.
MS. SCOTT: So, the funds that are shown in 2023 in 9-Staff-349, 491,544 K, that's for the period after November

2nd?

MS. WOO: I don't see the 400K on the screen right now. I just want to make sure I look at the number to make sure I --

MS. SCOTT: Sorry, it's in the DVA continuity schedule that was attached to that IR.

MS. WOO: Is it possible to refer to -- I just want to look at the schedule first just to confirm the answer.

MR. KEIZER: Sorry, Mr. Scott, do we have an exhibit number related to the continuity schedule you could point us to?

MS. SCOTT: Well, it's attachment A to 9-Staff-349.

MR. KEIZER: Maybe if we scroll down it's there?

MS. SCOTT: No, it's a total separate Excel spreadsheet. I don't see what it was called.

MR. KEIZER: I think we're looking for it.

MS. SCOTT: That's it, yes. I think if you scroll up, you will see the -- yes, the cloud computing cost there.

MS. WOO: That's correct.

MS. SCOTT: Yes, if you scroll over to 2023. Going to the right. Continue to the right, yes. So, it's -- no, sorry, to the other direction. Yes, there's the 491. So, that was in -- can we go for the transactions in 2023? Yes, so there. Yes, so the 491,544 in 2023.

MS. WOO: Yes, to confirm, that is the cost from November 2nd to the end of -- to December 31st, 2023, cloud implementation cost.

MS. SCOTT: Right. And that's all of the costs?

MS. WOO: For that period of that year. So, it's just less than two months.

MS. SCOTT: So, when 4-SEC-89 says it accounts for that cost, it had removed it from what was shown in 2023, then, originally?

MS. WOO: Can we just go back to, sorry, I just lost track of the -- go back to the IR. Could you repeat the question?

MS. SCOTT: 4-SEC-89, part D. And schedule -- so, the one for -- just there, it says -- so it shows the updates for 2023 and 2024 bridge and reflects the impact of the cloud DVA.

MS. WOO: Yes, that is taken into consideration that the cloud implementation starting November 2nd, 2023.

MS. SCOTT: When you say taken into consideration, you mean it's been removed from the OM&A and put into the DVA?

MS. WOO: Subject to check, yes.

MS. SCOTT: And then a subsequent year, 2024, 3.5 million was put in to the DVA, and that would be a similar -- I guess what I'm looking for is what is now in OM&A for cloud computing, and what is in, and forecast, to potentially be in the DVA, the cloud computing DVA?

MS. WOO: In 2024 the cloud computing is forecasted to be in DVA. If we could refer you back to the IR 2-Staff-263, question B. And the answer here:

> "For '25 to '29, given the proposed five-year OM&A funding through a revenue growth factor, includes a forecast for incremental cloud

implementation and subscription cost, Toronto
Hydro have decided not to pursue a deferral
account starting 2025 to '29."

MS. SCOTT: Okay. So, the 2.2 that's shown in 2029 is the incremental increase between '25 and '29 of its forecast, if I understand that then, going back to that figure 14 and 15?

MS. WOO: Yes, if we go back to the figure, I think the one we were looking at was 2020 versus 2025.

MS. SCOTT: Right. That's the 5.9?

MS. WOO: Yes.

MS. SCOTT: And does that change? Does that 5.9 change now that you've changed what's going in the DVA for 2023 and 2024?

MS. WOO: No, it doesn't change because this graph is a variance from 2020 to 2025, and the deferral account is for 2023 and 2024.

MS. SCOTT: Okay. Okay, I think I understand that. But maybe I can go back and ask for an IR that shows, for 2020 through to 2029, for each year, what is the actual and forecasted spend and how it is computed.

MR. KEIZER: That's fine.

MR. MURRAY: That will be Undertaking JT3.6.

UNDERTAKING JT3.6: RE 2-STAFF-263B, FOR 2020 TO 2029, TO SHOW ACTUAL AND FORECASTED SPEND AND THE CALCULATION

MS. SCOTT: One of the things in 4-SEC-109, and this is where we had asked about maintenance contracts and licensing. And we asked about the forecast, if you go down to the next page, I think. The next page. Sorry, yeah.

And we asked about what was the forecast. And Toronto Hydro said they were unable to provide that because you were working on an IT investment planning process. And if you could provide a status of that planning process?

MS. WOO: If I could refer you to our IT evidence, our IT investment strategy, exhibit 2B, and -- D8, page 7. If you scroll to the bottom. Actually, sorry, just up a little bit? Yeah, a little bit, to the beginning of the section?

This is our planning process. It is an ongoing process that we do every year. We look at different criteria to prioritize different initiatives, what is critical for our organization every year. We have a five-year road map of investments, and that's a continuous process. And then we have a detailed project plan for the upcoming year.

We do business cases. We follow a very thorough governance process and create business cases closer to the start of execution, usually the year before the project starts.

But to answer your question, the process is continuous and ongoing, and something that we work on, on a continuous basis.

MS. SCOTT: So the forecast for 2025 to 2029 is based on what's currently in this IT investment planning process?

MS. WOO: The forecast is based on many factors. One is looking at our, as we talk about this ETP, enterprise technology portfolio five-year road map. In addition, we do a lot of thorough historical analysis, trending analysis, as well, to come up with the forecast.

MS. SCOTT: But your response in the previous or the 4-SEC-109 led me to believe you couldn't say specifically what you were spending that money on.

MS. WOO: We don't have a detailed plan as to exactly what the project names are. We have a high-level plan. And the forecast comes from a detailed historical analysis. Maybe if I can refer you back to the same IR, response D? It actually gives, at a high level, some examples of those projects, line 4, 5 and 6. And I will read it out loud:

"At a high level, Toronto Hydro plans to deploy cloud-based solutions to support vegetation management, customer relationship management and also enhancing our mobile workforce management during the 2025 to 2029 rate period."

However, as I have mentioned, we will use our ETP process to make sure we prioritize and focus on the projects that are most critical for us for that particular year.

MS. SCOTT: Okay. I will leave it there. Thank you.

Again, for the locates, the answers that were given for the DVA for the cloud computing, that's the same idea, is that you removed funds from 2023 and 2024 and put them into the Getting Ontario Connected Act DVA?

MS. WOO: Can you maybe put that up on screen for us, please?

MS. SCOTT: I guess we are looking at 4 SEC -- well, it's a bit of 4-SEC-89, but it is also the DVA Excel spreadsheet. I guess, to see the numbers, it's the Excel spreadsheet is the best place. Yes, there we go. So it's the next line down, so the 9/10. Okay. And I think there's 1.5 million in 2024.

MR. SMART: Maybe, if I could ask to you pull up 4-Staff-296? And, if you scroll down, there's a table in one of the later parts of the question. Sorry, down a little bit more. I think it's part of E, actually.

So in response to this IR, we provided the amounts and the balances that we would record in the GOCA variance account for 2023 and 2024.

MS. SCOTT: Right. And in this case, you are asking to continue the DVA, through 2025 to 2029?

MR. SMART: That's correct.

MS. SCOTT: Yeah, I've got to move on quickly. So 4-SEC-106. I don't know that you need to pull it up, but you provided the percentage of customers on E-billing, and estimated annual savings, 2022 to 2029. Can you provide me with the information for 2020 and 2021, as well?

MS. PAGE: Hi. Just to clarify, you would like the percentage for 2020 and 2021?

MS. SCOTT: Yes, and the table 2 as well.

MS. PAGE: Okay. I don't have that information with me, but I can take it as an undertaking.

MS. SCOTT: Thank you, very much.

MR. MURRAY: That will be undertaking JT3.7.

UNDERTAKING JT3.7: REF 4-SEC-106, TO PROVIDE THE PERCENTAGE OF CUSTOMERS ON E-BILLING FOR 2020 AND 2021, AND TABLE 2 AS WELL.

MS. SCOTT: And 4-SEC-100B. And this was about key accounts. Is this the right panel to be asking about key accounts? And it talked about the increase in FTEs, and the related increase in key accounts. And at the bottom there, it says:

"Toronto Hydro estimates an additional 60 to 70 new account key accounts to be added over the 2024 to 2029 period."

My understanding is key accounts are greater than one meg accounts. And when I look at the customer numbers, that doesn't seem to jive. So if you could clarify that?

MS. PAGE: Sorry, can you clarify which numbers aren't jiving for you?

MS. SCOTT: Well, Toronto Hydro estimates an additional 60 to 70 new key accounts. Are you saying 60 to 70 new customers over one meg in that period?

MS. PAGE: That is correct. It could be either over one meg or it could be a priority account. So sometimes it is not necessarily one account that is over one meg, but it could be several accounts that, when aggregated, are over one meg.

MS. SCOTT: Okay, because it is certainly, when I look at -- and I'm going back to Exhibit 3, table 2, customer numbers by rate class. The forecast of customer numbers for general service and large use is not increasing by 60 or 70.

MS. PAGE: Yes, and I think that's because the definition isn't strictly "greater than 1 meg," so, for example, it could be a hospital, it could be an account that's not even a customer. So, for example, it could be a developer that we work closely with, so it's not necessarily all customers that we consider key accounts.

MS. SCOTT: Okay. Just based on the first line of that answer, that it -- it implied that they were key, the 513 key accounts, and there are roughly 513 of those customers.

MS. PAGE: Yes. I'll just clarify that that number is strictly customers.

MS. SCOTT: That 513? But it's not all what you consider key accounts. I guess that's the confusing thing. Yes. Maybe I can ask you that, then: What is the number, current number, of key accounts that you have?

MS. PAGE: That are customer based is the 513.

MS. SCOTT: Okay, but you're saying there are additional ones on top of that?

MS. PAGE: Yes. The key accounts team is more of a, like a program, a key accounts program, so there are certain customers that we specifically support. So there are the 513 customers, which really is aggregated into 423 unique customers, but the program and the staff support developers, other priority loads such as hospitals, so there are other things that the seven staff would spend time on. And the 60 to 70 is simply a forecast.

MS. SCOTT: Right. I'll have to hand it back to my colleague, Mr. Rubenstein, just for time constraints. Thank you.

MR. RUBENSTEIN: Thank you very much. There is another question that was punted to this panel. Maybe we can -- well, let me skip to the preamble, and then we can get to the right interrogatory since a number of them pointed to it.

In 2B-SEC-37, we asked you about management tracking progress on capital plans and what reporting there was and a copy of the recent version. In 2B-SEC-39, we asked specifically about executive performance reports. And, for both, you point us to 2B-AMPCO-29 B and C. In that interrogatory, our part B, you discuss the monthly investment and operations planning process. There's a presentation given, as I read it. Do I have that right?

MR. NASSO: That's correct.

MR. RUBENSTEIN: But you declined to provide an example as you say it has no probative value to the issues. I was a bit confused by that answer. Is it Toronto Hydro's position that scrutiny of the company's oversight of its capital plan execution is not a relevant issue in this proceeding?

MR. NASSO: No, that's not correct. So let me explain the meeting. So the meeting is a three-hour meeting that has -- the presentation encompasses the various work programs, maybe cap ex or op ex. We provide updates on the various sub-segments that feed into it.

So the document, itself, is a snapshot in time, but what's really, really important in that meeting is the review and the discussion that happens in that meeting in terms of deciding mitigating activities to steer that program in the right direction.

MR. RUBENSTEIN: So, in 2B-SEC-39, we had asked you for the three most -- I believe would be the equivalent of what are essentially IOP reports.

MR. NASSO: Mm-hmm?

MR. RUBENSTEIN: So can -- or I guess they're presentations as you're saying. I'm going to ask again that you provide it, and I think your comment about that really it's the discussion and all that, I assume there are notes taken of that meeting?

MR. NASSO: There are a number of things. We have an actual log. It's a formal meeting with a decision log. A decision log and decision log happen on every single meeting, yes.

MR. RUBENSTEIN: Well, I'm going to ask based on the question of 2B-SEC-39 that you provide the three most recent reports and notes or decision logs so we can understand that process better.

MR. KEIZER: Sorry, so you need to see examples of the decision log? Is that what you're asking?

MR. RUBENSTEIN: We're going to ask for the three most recent meetings to utilize as an example, to understand. I think that's the best way to do it.

MR. KEIZER: And that's just a means by which to understand the process. Is that --

MR. RUBENSTEIN: Understand the process, understand oversight. We think the most recent ones are probably the best, and so it would be the reports or, as I take, presentations and then, if there are notes or an action log or what flows out of that.

MR. KEIZER: Can I just have a moment? So I think that, to take back to the witness' statement that this is a snapshot in time, I mean I'm not sure necessarily what it establishes or shows, other than that a meeting took place and there was something particular on the agenda.

But why don't we do it this way, that we'll take it, to the extent that we can produce it, we will; if for some reason on examination of these documents we consider it not to be relevant, we'll set it out and the rationale for doing so in the IR, in the undertaking.

MR. MURRAY: That will be undertaking JT3.8.

UNDERTAKING JT3.8: REFERRING TO 2B-SEC-39, TO THE EXTENT IT IS POSSIBLE, TO PROVIDE THE THREE MOST RECENT REPORTS AND NOTES OR DECISION LOGS; IF DEEMED NOT RELEVANT, TO SET OUT THE RATIONALE.

MR. RUBENSTEIN: Can I ask you to turn to 2B-SEC-64, and I'm specifically interested in part E. This was directed to the AMI 2.0 program, and the answer references that it's nearing the end of the competitor procurement for the AMI program. Can you just be a little more specific of what you mean by that? Where are we in the process?

MS. PAGE: I'm sorry. Could I ask you to speak up a little louder. I can't hear.

MR. RUBENSTEIN: I apologize for that. In that question, we had asked you about the competitor procurement process for the AMI 2.0, and, in the response, you say, "Toronto Hydro is nearing the end stages of the competitor procurement process for the AMI 2.0." I was wondering if you could provide a little bit more detail: When it is expected to end, when you will have a contract or the finalized pricing, et cetera.

MS. PAGE: Sure. So, actually, we have just finished that process recently, within the last few weeks, and we have now signed the contract.

MR. RUBENSTEIN: Are you able to provide the total cost of the AMI program, regardless of the rate period, if it flows into the next rate period?

What is the total cost of the project -- the program? You can just do it by undertaking. I don't mean this on the spot, here.

MS. PAGE: Yes, I mean we've got $201 million in the forecast period for this program.

MR. RUBENSTEIN: Yes. I think my question is regardless of the rate period. I just want to understand what the total cost is.

MS. PAGE: Okay, yes, because we're starting this year, so, yes, I'm going to have to take that back to get the additional costs for 2024.

MR. MURRAY: That will be undertaking JT3.9.

UNDERTAKING JT3.9: REFERENCE: 2B-SEC-64E, TO PROVIDE THE TOTAL COST OF THE AMI PROGRAM, REGARDLESS OF RATE PERIOD, IF IT FLOWS INTO THE NEXT RATE PERIOD.

MR. RUBENSTEIN: Considering that you've just finalized the process, for the purposes of the budget in the application, what did you use or how did you determine what the project costs were going to be? What was the basis of that forecast?

MS. PAGE: Project costs were determined based on industry averages, so we did do a technical study prior to estimating the costs of the project. And let me just refer you --

MR. RUBENSTEIN: Is that the Util-Assist report?

MS. PAGE: Yes. So, in that report, it was -- or during discussions, it was information was made available on basic pricing. We have got prices from different manufacturers, so we were able to sort of come up with a range of pricing for the meter, itself. To that we added labour costs on for the implementation, and, again, speaking with different consultants, we came up with an average for what the integration cost would be for the systems and the consultants.

MR. RUBENSTEIN: Now that you have the signed contract, how does the, what I'll call, the more updated 2025 to 2029 costs 2019 costs compare to what you had built into the application budget?

MS. PAGE: We now have the costs for the meters and they came in just slightly under what we had budgeted.

MR. RUBENSTEIN: Can I ask you, can you provide more details? If I asked you, by way of undertaking, to provide the 2024 to 2029 costs based on the most updated information for each of those years, are you able to do that?

MS. PAGE: Are you asking for the costs to be -- I mean in the last undertaking you asked for costs from '24 to '29, are you asking for it now to be -- those costs to be more broken down by sort of meter and labour versus just the total cost of the program?

MR. RUBENSTEIN: Well, my first question was regards of rate term. You may expand past 2029, that's a separate question.

Now I want to understand, now you have finalized information with the contract, so you have the better information. I want to understand how that compares to, essentially, the costs that are included in this application, and that would include 2024, because you have some 2024 costs that obviously flow into rates beginning in 2025.

MS. PAGE: Okay. So, the RFP we did was solely for the meters. We are working on the RFP now for the system integration component of it, so that cost we do not have.

MR. RUBENSTEIN: Well, based on the best information you have now with the contract, can you provide 2024 to 2029, what I'll call the more up-to-date program costs?

MR. KEIZER: So, you're just asking to update the number based upon the new metering costs?

MR. RUBENSTEIN: Yes.
MR. KEIZER: Is basically what you're asking?
MS. PAGE: Yes, we can do that.
MR. MURRAY: That will be undertaking JT3. 10.
UNDERTAKING JT3.10: TO PROVIDE UPDATED PROGRAM COSTS, 2024-2029, BASED UPON THE NEW METERING COSTS
MR. RUBENSTEIN: Can I ask you to go to 2B-SEC-52. This is with respect to the Gartner IT cost benchmarking study. And in part B of that question -- sorry, in part C we had asked you, my apologies, part C we asked how many companies that were included in the custom peer group and the ITKMD utilities peer group are, and then we provided you with various breakdowns. And you provided that information, or Gartner provided that information, with respect to the custom peer group, but not the ITKMD group. Can you provide that information, or more accurately, ask Gartner to provide that information?
MS. WOO: Let me just bring it. Subject to check, it's a question for Gartner, but the ITKMD is a quite large group, so let me just see if I could, in their benchmark, let you know how many utilities included in the ITKMD group.
MR. RUBENSTEIN: Well, I can tell you, there's 123 based on the evidence.
MS. WOO: I think that would be a question for Gartner to see if they can.
MR. RUBENSTEIN: Well, can you ask --
MR. KEIZER: We'll undertake to ask Gartner if they

can provide it in accordance with what you ask for in SEC-52.

MR. MURRAY: So, I'll mark that as undertaking JT3.11.

UNDERTAKING JT3.11: REFERRING TO 2B-SEC-52C, THE GARTNER IT COST BENCHMARKING STUDY, TO PROVIDE THE INFORMATION WITH RESPECT TO THE CUSTOM PEER GROUP BUT NOT THE ITKMD GROUP.

MR. RUBENSTEIN: In part F of that interrogatory we had asked, for each functional area, please provide the full maturity level description criteria. And what it appears that has been provided is a description of each functional level. But what we were trying to get at is for each maturity level what the descriptions are. In the report it will say if you're a 4, what that means, but it doesn't tell you what a 5 is, and what a 1, 2, and 3 are, and that's what we were looking for. Can you ask Gartner to provide that information?

MR. KEIZER: We'll ask Gartner to provide the information.

MR. MURRAY: That will be undertaking JT3.12.

UNDERTAKING JT3.12: REFERRING TO 2B-SEC-52F, TO PROVIDE DESCRIPTIONS FOR EACH MATURITY LEVEL

MR. RUBENSTEIN: In part G -- back up, in the report there is talks about the top 25 improvement opportunities, and we asked you in that question to address how Toronto Hydro plans to address each of the top 25 opportunities. And you provide a response, but I'm not sure it answers the question that we were asking.

Essentially, what I am unable to take away from the response here, and when I look at those opportunities, which ones are actually being addressed in the plan?

MS. WOO: So, maybe before we go into the details of the '25, I wanted to highlight that this benchmark is to help validate Toronto Hydro's information technology investment strategy. It helps to validate our IT OT capital program. So, it's not the only piece of information that we use to create our overall plan. If we could turn to our Gartner benchmark, and I'll bring up that table there, the top 20. Which did we have a page number? Page 55. Page 55 on that table.

As I have mentioned as part of our IT investment strategy, we follow an ETP process, this benchmark was done at a snapshot in time. So, what we do as part of our ETP processes, every year we relook at our portfolio projects, we look at our roadmap and we try to prioritize what's most important for Toronto Hydro.

But I could say that the top three opportunities identified here, it is part of our data and advance data analytics, and we are focusing on at least the top three in the upcoming year. As we have addressed it in the IR to be SEC-52, question G, we try to give examples here about the data in the area of data analytics by improving reporting, data sharing, and making data more accessible. You can find it in exhibit 2B, section E 8.4.3.2, page 13. That will be an example of a mention of how our plan is being validated by Gartner.

MR. RUBENSTEIN: So, what I'm going to ask you just by undertaking, is if you -- we're talking about those three, but there's 25 on the list. I'm just trying to understand -- I guess maybe you've done them since the report, but also if you could provide a more comprehensive answer to the question that was asked for each of the 25, let us know which ones have been dealt with, are included in the plan and with which ones are not?

MS. WOO: All the top 25 as you see here, are going to be part of our consideration of our next five years. However, as I mentioned, we don't -- when we start execution of these projects, we create business cases, but we do it closer to the start of execution, so what's important for at this point in time may be slightly different by what's important three years from now. So, it's important to go through the governance process to prioritize what's important. But all 25 of these are in our high level road map for the next five years.

MR. RUBENSTEIN: Okay. Thank you very much. Can I ask you to go to 2B-Staff-261. And it's with respect to the EDC project spending. And t shows the forecast spending, 2025 to 2029. And I couldn't find anywhere -- are you bringing in service any of this work before the completion of the EDC?

MR. HOMSMA: Sorry?

MR. RUBENSTEIN: Sorry, are you bringing into service for rates purposes, any of the spending before the project's completion in 2029?

MR. HOMSMA: You're talking about a new electrical service to support the data centre?

MR. RUBENSTEIN: Well, I don't -- I mean, you're building a data centre, so I'm not --

MR. HOMSMA: Sorry, are you saying like, bring in assets into service, like capitalize them? Or a service as in a new electrical service?

MR. RUBENSTEIN: No. I am talking about capitalizing for rate purposes.

MR. HOMSMA: Yeah. There is nothing planned for 2024.

MR. RUBENSTEIN: Well, no, no. But for 2025 -- you are showing this on Capex basis, and I couldn't find an equivalent table that shows this on an in-service basis. What is the pattern of in-servicing of the expenditures?

MR. HOMSMA: Yes. So that project, we look for ways to break it down in functional components from a facilities project standpoint. Most of it will be ISA'd in 2029.

MR. RUBENSTEIN: Is there anywhere in the table -- and I thought there was on the record, but I actually couldn't find it as I was preparing for this.

Is there a version of the appendix 2AA, which is the capital expenditures, that encompasses things that this is panel is responsible for, but other panels that show it on an in-service additions basis, not an capital expenditures basis? And, if not, could you provide one?

MR. KEIZER: Sorry, that shows with this project? Or every project?

MR. RUBENSTEIN: Every project. I mean, the 2AA spending, which is on a program basis, but on an in-service basis? I thought it was on the record, but I am actually not sure. I couldn't find it.

So, if not, could that be provided?

MR. KEIZER: Let me take that back. We will obviously -- I have to speak with regulatory as to what can and can't be done. But let's take it under advisement that we will consider it and deal with it, if we can.

MR. RUBENSTEIN: Okay. Can I go to 2B-Staff-263?

MR. MURRAY: Just before we do that, do we want to give that an undertaking? Or do you want to just take it back, at a break, and advise later on in terms of your -- the ability of Toronto Hydro to do that?

MR. KEIZER: Can we do it at the break? And then I can advise Mr. Rubenstein, and we can deal with it from there.

MR. MURRAY: That works.

MS. WOO: Maybe just to follow up on that one, if we turn to exhibit 2B, section E8.1, page 21? The very last sentence actually says:

> "The estimated in-service date for the project is 2029."

So it is in our evidence.

MR. KEIZER: That's just with respect to the EDC, right?

MR. RUBENSTEIN: Yeah. And then, just to be clear -- and so what you are saying, at least there's nothing that -- there's no in-service amounts until 2029, for this.

Right?

MS. WOO: Correct.

MR. RUBENSTEIN: Can we go to 2B-Staff-263, part B? And in the last paragraph of this response, Toronto Hydro says -- this is on page 3:

> "In the unfortunate event that the parties oppose the custom funding request for OM&A, and the OEB is inclined to entertain such a request, Toronto Hydro would seek alternative relief for a generic account to capture variances for cloud-related costs, implementation and subscription to ensure the utility is able to fund these prudent and necessary expenditures and reduce the financial barriers to adoption of cloud-based solutions."

Do you see that?

MS. WOO: Yes, I see that.

MR. RUBENSTEIN: I just want to make sure I understand. As I understand, the Board already has a generic account. So would this be different? Is an "alternative relief" different than what would be captured by the existing account?

MR. KEIZER: I think this is probably best addressed with panel 3.

MR. RUBENSTEIN: Okay. In part D, you were asked about cloud computing solutions with respect to the EDC. And there are interrogatories. And in the underlying evidence, it talks about how you did not consider cloud-based solutions for a number of reasons, that you thought it was inappropriate for the EDC. There's a bunch of risks that are talked about in the underlying evidence. There's reliability and operational risks.

Understanding that, did you ever assess that if there was a cloud-based solution for the EDC, instead of building an EDC, what the cost would be, at a high level?

MS. WOO: Could you repeat the beginning of your sentence?

MR. RUBENSTEIN: Sure.

MS. WOO: Because we do have cloud-based solutions, but this question is specific to the EDC only, not just generic cloud-based solutions.

MR. RUBENSTEIN: Yes. With respect to the EDC, as I understand, and this is in the underlying evidence as well, there's a discussion about why you didn't consider a cloud-based solution instead of building an EDC. And, you know, you talk about, there was operational, there are other risks that didn't make it appropriate. And I understand that. But did you -- before you got to that point, did you ever consider what the cost differential would be, even at a high level, what the cost would be to do it entirely on a cloud-based or cloud basis?

MR. HOMSMA: Just give me a second. I will refer you to the evidence.

So please go to E8.1 -- exhibit 2B, E8.1. The options analysis there does have high-level costs for a cloud-based solution. So it was considered, among other factors. I am just trying to find the page here; the tablet is slow.

So status quo option would be No. 1. If we scroll down, you'll find cloud-based. That is -- keep it at one location. Okay. If you go back up to 3?

MR. KEIZER: I think one page down, maybe? No.

MR. RUBENSTEIN: I didn't see costs. I see why you have -- I mean, there is evidence about why you thought it was inappropriate. But I didn't see any high-level costs; that's why I am asking.

Just so we don't spend a whole bunch of time, can I ask you to undertake? If it's in the evidence, you can point to it. But, if not, and they are in -- you did consider the costs, you can provide them for that alternative, for that option?

MR. HOMSMA: Yes. One hundred percent, we considered the cost --

MR. RUBENSTEIN: Okay.

MR. HOMSMA: ...for a cloud-based option, yes.

MR. RUBENSTEIN: So can you undertake to provide that? Provide the cost?

MR. HOMSMA: Sorry, I can't hear you.

MR. RUBENSTEIN: Can you undertake to provide the cost?

MR. KEIZER: If it's in the evidence. I think what we will do is we will point to it, if it's in the evidence and advise that it's there and where it is.

MR. RUBENSTEIN: And if it's not, to provide it.

MR. KEIZER: If it's not, then we'll have to provide it, if we can, and indicate why we cannot, if there's a problem with it. And there may be confidentiality aspects to it, as well?

MR. MURRAY: That will be undertaking JT3.13.

UNDERTAKING JT3.13: TO PROVIDE COST ESTIMATE FOR CLOUD COMPUTING EDC OPTION

MR. RUBENSTEIN: Can we go to 2B-Staff-273. This is with respect to the $11.5 million in regulatory compliance costs that are included in the budget.

MS. WOO: I Am sorry, is it okay to try to speak closer to the mic? It is just the fan behind us; we find it a little hard to hear. Sorry about that.

MR. RUBENSTEIN: Yeah, no problem, definitely no problem.

In part B, you were asked about the list of regulatory compliance initiatives expected in the test year. And you forecast six, with a estimated total cost of $11.5 million. Do I have that right?

MS. WOO: That's correct.

MR. RUBENSTEIN: As I understand it, those costs are included in the IT software segment?

MS. WOO: IT OT capex, IT software segment. Correct.

MR. RUBENSTEIN: So I want to understand, and as I understand, this is just a forecast of things that may arise. You don't obviously know what those six regulatory initiatives are going to be. Correct?

MS. WOO: Correct.

MR. RUBENSTEIN: So what happens if the OEB approves a generic variance account for its new regulatory requirement as it often does. How do ratepayers ensure that there's no double-counting? Is it you don't get to record until the seventh initiative? Can you explain?

MS. WOO: The forecast of -- sorry, I just lost it -- of $11.5 million is based on historical analysis. We looked at what -- the number of initiatives and the dollars we executed in the last five years and then the previous filing, as well. These projects, when we come to regulatory, compliance is non-mandatory. We don't have a guarantee whether some of these projects will be given a deferral account, and therefore we, based on our analysis, came up with this forecast.

MR. RUBENSTEIN: No, I understand. But I imagine there is a deferral account, which often happens -- I agree, not always, but often does happens. I just want to make sure I understand how the interrelationship would work here.

MR. KEIZER: I think this might be something that is better taken by panel 3, with the regulatory folks on panel 3.

MR. RUBENSTEIN: Were there any regulatory compliance costs included in the 2020 to 2024 budget in the last application, similar, like you've done here with the 11.5, with the six projects?

MS. WOO: If I could refer you to our evidence, Exhibit 2B, section E, 8.4 -- I'm just trying to find the page numbers. Give me a minute. Page 24, that's the 2020 to 2024 actuals and bridge.

MR. RUBENSTEIN: Yes, my question is slightly different. In the last application, did the budget include regulatory compliance costs?

MS. WOO: Yes.

MR. RUBENSTEIN: Can you provide --

MS. WOO: We have the regulatory compliance segment, correct. Sorry I cut you off.

MR. RUBENSTEIN: Can you provide the similar -- the amount of costs that were included in the budget in the last application?

MS. WOO: Yes.

MR. KEIZER: That's fine. We can do that.

MR. MURRAY: That will be undertaking JT3.14.

UNDERTAKING JT3.14: TO PROVIDE REGULATORY COMPLIANCE COSTS INCLUDED IN THE 2020 TO 2024 BUDGET IN THE LAST APPLICATION.

MR. RUBENSTEIN: Can I go to 1B-SEC-28? This is with respect to the UMS benchmarking study, which I was told to direct those questions to you. Can we go to part E? So, in that question, we asked: Using the same methodology used to complete Appendix F, for each unit of measure, provide Toronto Hydro's actual unit cost for each year between 2020 and 2023 and forecasts for 2024 to 2029.

And then, at line 16, you say:

> "Toronto Hydro is unable to forecast the unit costs for 2024 to 2019 as the unit-cost methodology utilizes ISA data from completed projects."

I just want to understand that. Based on my understanding of the discussion I had on panel 1, projects are forecasted based on unit costs, you know, especially with the programmatic programs, which are the make-up of most of the projects or most of the units measures in the UMS study. So it was unclear to me why, based on forecast costs and forecast unit costs and whatever increases are provided to that, you were not able to provide unit costs for 2024 to 2029.

MR. NASSO: So, if we go back to the UMS study and the way that it was completed, the way that it was completed was looking at projects between 2020 and 2022, completed projects. So we don't -- if we're following the same format, same process, we don't have that to give you '25 to '29.

MR. RUBENSTEIN: Well, of course you don't have actuals. That, I understand, but I was a bit unclear why then you couldn't use the forecast information that you have, actual ISA, to forecast on the same basis as the study, essentially. Because, I mean, the difference being, there, it aggregates all pole replacements that may play in different programs, right, as compared to the capital plan, you know; you have -- there are different programs where you are doing pole replacements. But it's not clear to me why you couldn't do it with the forecast information that is included in the application.

MR. NASSO: The forecast is programmatic, so I do not have the exact projects that would tell me how many poles within there, so it would be very difficult to do.

MR. RUBENSTEIN: But I understood that the budget was set for the programmatic projects on a unit cost. You don't know the exact projects, obviously, but you are forecasting pole replacements at X dollars a pole, so it's unclear to me, then, why you couldn't just use forecast information to respond to the interrogatory. Maybe I'm missing something.

MR. KEIZER: And maybe -- and I don't know if I will muddy the waters, but maybe I can chime in, and maybe the witness can correct me if I'm wrong. And, if we don't know, then we will end up taking it away as an undertaking. But my understanding from panel 1 this morning was that they forecast -- they made a forecast based upon historical unit costs and trends and other things, and there was a whole bunch of various aspects went into it.

But I think when you read this, the response, it's talking about a forecast of the unit costs, and I think what the witness is saying is: I can't forecast the unit costs because I have a program, but I use ISAs to actually generate it, so I'm not necessarily sure of all the completed ISAs over the forecast period, so I couldn't give you a reasonable forecast.

Is that correct?

MR. NASSO: That's correct.

MR. RUBENSTEIN: But I'm confused because the application and all the stuff we talked -- all the projects that panel 1 was responsible for actually includes units, and the budget is built up based on a forecast for most of the programmatic programs, based on a unit cost to complete that unit of work. So it's unclear why. Well, maybe the best thing I could ask --

MR. KEIZER: Is for an undertaking?

MR. RUBENSTEIN: -- is for an undertaking to, using forecast information, to complete the interrogatory, and, if you can't, provide a little more detail of the explanation of, maybe we're just missing each other here, in the response.

MR. KEIZER: Yes, no, that's fair enough. So, if we can, we will, but, if we can't, we'll explain as to why we can't and clarify any issues related to panel 1 and panel 2.

MR. MURRAY: That will be undertaking JT3.15.

UNDERTAKING JT3.15: USING FORECAST INFORMATION, TO RESPOND TO 1B-SEC-28

MR. RUBENSTEIN: Thank you very much, panel. Those are SEC's questions.

MR. MURRAY: I see it's 11:56. We had sort of scheduled a lunch break for a few minutes from now, so my inclination would be to go on to the next witness for maybe, next questioner for 15 or so minutes, 15, 20 minutes and then take a break when it makes sense. So, Ms. Grice, that would be you.

EXAMINATION BY MS. GRICE:

MS. GRICE: Okay. Thank you. Good morning, panel. Shelley Grice, representing AMPCO. Okay. My first question is regarding 2B-AMPCO-23. Okay. In this question, we asked for the percentage of internal and external resources for each of the years 2020 to 2024, allocated to capital programs and maintenance programs.

And, in the response, you provided two tables, one for capital and one for maintenance. And so I just had a question just with respect to the first table and the category of external costs. Can you just confirm: Is that simply a labour cost, or are there other inputs into external costs?

MR. NASSO: So the external costs would include labour but could include items like material if they're doing civil-type work.

MS. GRICE: Okay. Okay, thank you. And then, if you look at the response to part A in the last sentence, it says: Additionally, Toronto Hydro notes that, besides internal and external costs, other costs for capital and maintenance programs primarily include material purchased, which is excluded from tables 1 and 2 below.

So can you just reconcile the comment you just made about --

MR. NASSO: Yes. So the material there they're referring to is electrical material.

MS. GRICE: That's the material purchased, is electrical?

MR. NASSO: That's correct.

MS. GRICE: And you're saying civil materials are included.

MR. NASSO: Toronto Hydro does not complete civil work, and we use external contractors to do so, so they purchase whatever is required to complete their work. That's what I'm referencing.

MS. GRICE: Okay. Thank you. And then, to get to a hundred percent here, so, if we were to add the civil material costs -- no, sorry, I have that opposite, sorry -- the electrical material costs, would we get to a hundred percent in the table, or is there some other category of costs that go into capital and maintenance programs?

MR. NASSO: There could be some other administrative-type costs in there, as well, so it would be close, but it wouldn't be a hundred percent.

MS. GRICE: Okay. Is it possible to get table 1 and table 2 on a dollar basis? So, that what it would look like is it would have -- and I will just list the categories. So, it would be internal labour, external labour, and that one includes civil materials. Then vehicle costs, and then the balance of material costs, and anything else that adds up to a hundred percent. Would it be possible to get the table on that basis?

MR. NASSO: Yes. We can take an undertaking to do that.

MS. GRICE: Okay, thank you.

MR. MURRAY: That will be undertaking JT3.16.

UNDERTAKING JT3.16: TO PROVIDE THE DATA IN TABLE 1 AND TABLE 2 ON A DOLLAR BASIS

MS. GRICE: Okay. And then just with respect to part

B of the question, we were just asking about resource assumptions internal and external for 2025 to 2029. So, just based on the undertaking that you just took, would you be able to provide a table on the same basis that you just provided for 2025 to 2029, so that would included forecast internal labour, forecast external labour, forecast vehicle cost and forecast materials and any other cost that add to a hundred percent. Would you be able to do that?

MR. NASSO: Can you repeat your question, please?

MS. GRICE: Sure, so it is just whether or not you can provide the same table that you're providing for capital and maintenance for 2020 to 2024, if you could provide the same two tables for capital programs and maintenance programs but for 2025 to 2029?

MR. NASSO: Yes, we can.

MR. MURRAY: That will be undertaking JT3.17.

UNDERTAKING JT3.17: TO PROVIDE THE TWO TABLES FOR CAPITAL PROGRAMS AND MAINTENANCE PROGRAMS SHOWING 2025-2029

MS. GRICE: Okay. Thank you. My next question is AMPCO-29. I'm looking at part A of the response. So, in part A we asked for Toronto Hydro to explain what triggers a project variance report, and provide the number of project variance reports over 2020 to 2023. And in table 2 below, it shows the number of project variance reports per year, and I note it's about 140 a year. So, we certainly don't want to get 140 project variance reports, but I wonder if you would be able to provide for each of the years 2020 to 2023, copies of project variance reports for projects greater than 1 million dollars in value, where the cost variance is 30 percent or greater compared to the original estimate. Would you be able to provide those documents?

MR. NASSO: So, the question is from the PVAs, you're looking for any variance that is greater than 30 percent and a million dollars?

MS. GRICE: And just related to cost, nothing else.

MR. KEIZER: Sorry, and you're talking about -- sorry, above a million dollars or a million dollars?

MS. GRICE: Yes, the value of the project, a million dollars and greater.

MR. KEIZER: And plus 30 percent variance?

MS. GRICE: Yes.

MR. KEIZER: Can I ask why particularly 30 percent variance, but.

MS. GRICE: Well, just we were just trying to narrow down the number of documents you would have to prepare if we went at 20 percent it --

MR. KEIZER: I understand. I'm not sure how many documents that actually entails. Or...

MR. NASSO: We don't have that information, subject to check. This is the variance that's greater than a million greater than 30?

MS. GRICE: No, no. Sorry, just the project itself, has a project value or estimate of a million dollars or greater, and then any project variance reports where the project costs went greater than -- equal to or greater than 30 percent of the original estimate. And just to clarify, that would include if there was for one project, say, four project variance reports that totaled 30 percent, that those would be included as well. So, meaning if you could have a project variance report across years, that might be less than 30 percent, but when you add it up for the project it's greater than 30 percent.

MR. KEIZER: If it was a multiyear project?

MS. GRICE: It was a multiyear project, yes.

MR. NASSO: So, I mean, within the project you have a high level estimate, you have a detailed estimate, and then you go into instruction and we get a PVA. What stage are you looking at?

MS. GRICE: The life of the --

MR. KEIZER: In reference to the PVA.

MS. GRICE: I'm sorry, I didn't hear the question.

MR. KEIZER: You're asking a question in reference to the PVA?

MR. NASSO: Right. Okay.

MS. GRICE: The project variance report, yes.

MR. KEIZER: I think we could.

MR. NASSO: I think it can be done. We would have to take a look to see the number of projects, subject to check, we can validate that.

MS. GRICE: Okay. And I just have just one other part of the undertaking. When you get that list together, if you could identify which projects required formal approval of the change in cost from your senior management and executive team before proceeding. Because you say in the evidence that's part of your internal process. Is that for certain projects, depending on what the cost schedule or scope variance is?

MR. NASSO: I think what we say in the evidence, or in the last part, is that all projects go through a governance process.

MS. GRICE: Yes, unfortunately my wording on that question was incorrect. I'm referring back to the preamble of the question, which is page 1 of AMPCO-29, where it says in the last sentence:

> "Depending on the magnitude of a required change to a project's cost schedule or scope of work, the change may require a detailed assessment of alternatives and formal approval from senior management and the executive team before proceeding."

So, I meant to word part H of my question to provide the changes that had to go to senior management, so I'm just applying it now to this undertaking. If you could identify in those project variance reports which ones had a change in cost that required additional senior management and executive team approval?

MR. MURRAY: Perhaps because it's been a lot of back and forth, can we just read back the undertaking for the record, because I know the court reporter has asked that sometimes the undertakings aren't clear. This strikes me as one where there was as lot of back and forth so if we can just maybe read back clearly on the record, and then I can give it a number.

MS. GRICE: Okay. So, it would be for each of the years 2020 to 2023 to provide copies of project variance reports for projects greater than $1 million, where the cost variance is 30 percent or greater.

MR. NASSO: So, one million and 30 percent, if I understand that correctly?

MS. GRICE: Yes, it's a variance in cost of 30 percent.

MR. KEIZER: Yes, The project value is $1 million and the variance is 30 percent.

MS. GRICE: Okay. And then that would include if there were multiple reports for a project, so this would be a multiyear project, that had individual project variance reports, we would be looking for those that have an aggregate variance of greater than 30 percent from the original budget.

And then the last thing would be which of the project variance reports provided required approval from senior management and executive team due to the change in cost?

MR. MURRAY: And that undertaking will be given the number JT3.18.

UNDERTAKING JT3.18: FOR EACH OF THE YEARS 2020 TO 2024, TO PROVIDE COPIES OF PROJECT VARIANCE REPORTS FOR PROJECTS GREATER THAN $1 MILLION, WHERE THE COST VARIANCE IS 30 PERCENT OR GREATER, INCLUDING IF THERE

WERE MULTIPLE REPORTS FOR A PROJECT, SO A MULTIYEAR PROJECT THAT HAD INDIVIDUAL PROJECT VARIANCE REPORTS; TO ADVISE WHICH OF THE PROJECT VARIANCE REPORTS PROVIDED REQUIRED APPROVAL FROM SENIOR MANAGEMENT AND EXECUTIVE TEAM, DUE TO THE CHANGE IN COST.

MR. KEIZER: That's fine. We'll look at what's doable, and if we can do it then we will, if we have problems in doing it, we will, obviously, advise in the undertaking response.

MS. GRICE: Okay. Thank you very much. I think I can just keep going and finish. Okay. AMPCO-48, please.

So, in this question we asked for the specific accomplishments over 2020 to 2025 related to Toronto Hydro's net zero by 2040 strategy and the corresponding costs.

And I'm just looking at the third item down, which is the introduction of electric vehicles. And you provide there what the average incremental cost is per heavy duty unit and per light duty unit. And I just want to confirm, are the costs related to electric vehicles, are they included in 2B-E8.3, are they included in that evidence for the capital dollars?

MR. HOMSMA: Sorry, is the question does our budget account for the premium?

MS. GRICE: Actually, does it account for the total cost of electric vehicles purchased between 2020 and 2025 -- or 2024? Like, if I go to exhibit E8.3, and you've got a budget there of dollars for what you are going to spend on fleet for 2020 to -- 2025 to -- I am sorry.

MR. HOMSMA: Okay. That's where I am getting confused. Okay.

MS. GRICE: I am sorry.

MR. HOMSMA: Yes.

MS. GRICE: Now I've confused it. I am sorry. At that exhibit, you give how many dollars you spent from 2020 to 2024, and I think it's $36.7 million. Does that $36.7 million included electric vehicles? Or is it accounted for in some other place in your budget?

MR. HOMSMA: Sorry, are we talking about the 2020 to 2024 period? Or the 2025 to 2029 period?

MS. GRICE: Yes, the 2020 to 2024 period.

MR. HOMSMA: Okay. And, sorry, you are referring back to the fleet evidence, under 8.3?

MS. GRICE: Because it gives the 2020 to 2024 total spend, of $36.7 million. So I just wondered if electric vehicles are in that amount?

MR. HOMSMA: So that $36.7 million was the original budget. I just want to validate that that was the actual. So I just need to take some time here.

MS. GRICE: Okay.

MR. HOMSMA: But, in a general sense, we are budgeting for EV conversion. That is our goal.

MS. GRICE: Okay. So I guess what I wanted to ask, then, if it is in the $36.7 million, what you've already spent on electric vehicles over that period, could you provide how much you've spent, 2020 to 2024, on electric vehicles?

MR. HOMSMA: So you would like the -- a breakdown of EV vehicles, and from the 2020 to 2024 period, and the cost, the actual purchase cost?

MS. GRICE: Yeah. Just the actual cost, yes.

MR. KEIZER: That's fine.

MR. MURRAY: That will be undertaking JT3.19.

UNDERTAKING JT3.19: TO PROVIDE A BREAKDOWN OF EV VEHICLES, 2020-2024, INCLUDING ACTUAL PURCHASE COST.

MS. GRICE: Okay. Now, if we can please go to AMPCO-65. And in this interrogatory, we just asked a bunch of questions about how many -- about the number of vehicle replacements by type, by year, and the cost by year in question part A. And we asked it for heavy-duty and for light-duty vehicles.

And the only thing I found was when I went through the actual data in table 6 and 7 in this response, there were some discrepancies between it and the original evidence at exhibit E8.3, tables 4 and 5. And then SEC interrogatory 2B-77.

So there seems to be quite a few discrepancies, and I just wondered if you could reconcile those three pieces of evidence?

MR. KEIZER: By way of undertaking?

MS. GRICE: By an undertaking, yes.

MR. KEIZER: Yes. And can we get the references, again?

MS. GRICE: Sure, sure. So the original evidence would be 2B, E8.3, table 4 on page 11, and table 5 on page 12, compared to 2B-AMPCO-65, part A, and 2B-SEC-77.

MR. KEIZER: Okay.

MR. MURRAY: That will be Undertaking JT3.20.

UNDERTAKING JT3.20: TO RECONCILE THE EVIDENCE AT 2B, E8.3, TABLE 4 ON PAGE 11, AND TABLE 5 ON PAGE 12, COMPARED TO 2B-AMPCO-65, PART A, AND 2B-SEC-77.

MS. GRICE: Okay. Thank you. And I just have one more question, and that is AMPCO-66C. So this is where you show your replacement costs for EV and hybrid vehicles for 2024 to 2029. I just wanted to confirm that that amount is in the budget as part of E8.3 for fleet vehicles?

MR. HOMSMA: Yes, it is.

MS. GRICE: Okay. Okay. That's great. Thank you very much. Those are my questions.

MR. MURRAY: Thank you, very much. Ms. Grice. I think now would be a good time to take the lunch break. And I would ask everyone to be back by one o'clock.

--- Luncheon recess at 12:14 p.m.

--- On resuming at 1:03 p.m.

MR. MURRAY: I believe next on the list for the questioning is Ms. Girvan of CCC. The floor is yours.

MS. GIRVAN: Thank you. Good afternoon, panel. My name is Julie Girvan, and I represent the Consumers Council of Canada.

PRELIMINARY MATTERS:

MR. KEIZER: Sorry, Ms. Girvan. Can we just have a moment? We do have one preliminary matters, and that is a minor correction from this morning. Sorry, I apologize. But, if we could do that, and then maybe Ms. Girvan can go ahead.

MR. MURRAY: Certainly, Mr. Keizer.

MS. WOO: Thank you. So I to talked about the cloud computing cost that got moved to the DVA account. I said the dollar was for November and December of 2023. It should be: The memo was released on November 2nd, but the computing cost is only starting December 1st onwards, so the cost is only for the month of December, the correction.

MR. MURRAY: Thank you. Ms. Girvan, over to you now.

EXAMINATION BY MS. GIRVAN:

MS. GIRVAN: Okay. Thank you. If you could, first turn to 1B-CCC-16 and, if you can, scroll down. There, in this section, thank you. So this is again a little bit about fleets and fleet, and it said, originally it said, there was a reduction in the period 2017 to 2023 of $26 million related to fleet. So this is in the context of, I guess, efficiencies. And the interrogatory says that there was an error in the original evidence, and the $26 million figure is now, if you scroll down, just the very bottom, it's $39.6 million, I guess, or .7 million. So is that correct, that you found this error, that the savings over that period were $39.7 million with respect to fleet? Is that correct?

MR. HOMSMA: Yes. When answering this interrogatory, we found the error, and we added that note at the bottom to include the additional savings.

MS. GIRVAN: Okay. So do you have a corresponding number included in the 2025 to 2029 revenue requirement that reflects savings related to fleet?

MR. HOMSMA: In terms of the savings, are you specifically speaking of reduction in fleet or just savings in fleet in a general sense?

MS. GIRVAN: Well, I'm just looking for a comparable number to the 39.7, whatever is included in that, and I think it's maybe number of units, but I'm not sure.

MR. HOMSMA: Yes. So those are vehicle units. You know, through our asset management program, as we replace vehicles, we decide whether we need to replace it or if we could just let it run its course and then not replace it. So, by us not replacing vehicles, we were able to find those savings.

MS. GIRVAN: Okay. Do you have projected savings in the forecast period related to this?

MR. HOMSMA: There is an interrogatory where we showed our projected vehicle counts. I just need to find it. But it won't show savings. It will just show our projected vehicle counts.

MS. GIRVAN: Okay, so you don't have a forecast savings during the rate plan term?

MR. HOMSMA: No, but it's also important to know that the conditions change for us, and, you know, as part of our meetings with our customers, our customers being the users of the vehicles, the counts that we purchase can change, so, for us to provide it, it would be a very high-level estimate.

But, also, we do see that our vehicles have plateaued in terms of counts, and that's to service, you know, this application. Even in the evidence, I guess, through panel 3, you will see there are additional workers coming through, so we need to have vehicles. It would be very difficult for me to say what that reduction count will be because there are a lot of factors to consider between now and the actual purchase date.

MS. GIRVAN: Okay. Thank you. Could you please turn to 1B-CCC-42 and, if you could -- this, just to give you some context, this interrogatory sets out initiatives that Toronto Hydro undertook during the past rate plan period. And you've listed -- these are, I guess, productivity initiatives.

If you go down to the bottom, there's a chart where we asked for the cost of each of those programs and whether they were refunded by rates and what the forecast costs would be going forward.

I have a couple of questions. If you scroll down to the next page -- sorry, page 6, yes -- you've got process automation in there, and the costs in the previous period were $32 million, and the costs in the other period are $50 million.

What are the expected benefits associated with that $50 million spend over the 2025 to 29? Did you include savings associated with process automation?

MS. WOO: Yes, there are definitely savings coming out from the $50 million. If I could refer you to our evidence -- give me a second to find it -- Exhibit 1B, Tab 3, schedule 1.

MS. GIRVAN: What page?

MS. WOO: Page 41. The initiatives in the process automation program will be part of the efficiency achievements shown in this section, 2.4.1.

MS. GIRVAN: Okay, so do you, though, have specific savings imbedded in your forecast related to that initiative? Like, do you have a number?

MS. WOO: So, if we turn to page 42 of the same evidence, we talked about over the next rate period -- at the bottom of this page, please:

> "Over the next rate period, Toronto Hydro set a target to achieve approximately $6.9 million in asset sustaining and quantify efficiency benefits per year by 2029."

MS. GIRVAN: But that's generally; that's not specifically related to the process automation. Is that correct?

MS. WOO: All the process automation initiative will be part of that number. It's not the entire 6.9 per year, but it is -- all of it will be part of, inclusive in, that $6.9 million per year.

MS. GIRVAN: So you're spending $50 million over the term to achieve savings that are somewhat embedded in that $6.9 million?

MS. WOO: $6.9 per year, times five.

MS. GIRVAN: Okay, but you can't estimate what the process automation is, what the number is?

MS. WOO: The details, we will not know until we get closer to executing the projects. If I have mentioned earlier this morning, we follow our IT investment strategy that follows the EPT framework, that we prioritize projects closer to the start of execution. But this is based on historical numbers. The $6.9 million per year is something we thought is something that is a number that we could commit to, but we don't have the exact projects that we'll be doing in '25 to '29.

MS. GIRVAN: And how did you derive the 6.9?

MS. WOO: It is based on historical analysis. If you look at Figure 9 there, it shows and example of what we have achieved in 2020 to '24.

MS. GIRVAN: Okay. All right, thank you. If you could go back to the same interrogatory, I just wanted to ask the same question about customer experience.

MS. WOO: Sure.

MS. GIRVAN: So, in the previous period, you spent 28.5, and now you're expected to spend $25 million. Where do I find those costs in your forecast, and what are the associated benefits related to those costs?

MS. WOO: So the 2025 costs of $25 million is part of, as you have seen there, Exhibit 2B, section E, 8.4 -- I don't think we need to jump to it; if we could, just stay in the IR, please -- and also Exhibit 4, Tab 2, schedule 17. They are part of the IT software program, and also because cloud is part of our OM&A, cloud computing in our Exhibit 4, Tab 2, schedule 17 is also part of the cloud computing is in that number.

MS. GIRVAN: Okay. And what are the savings associated with those expenditures forecast in the rate 2025 to 2029?

MS. WOO: The 2025 to '29 savings or are we talking about 2020 to 2024?

MS. GIRVAN: '25 to '29.

MS. WOO: The savings is -- again, it will be part of the forecast, when it comes to customer experience, the savings usually will come from customer care and metering area, and part of it will also be from the efficiency achievement metrics.

MS. GIRVAN: Have you built that into your forecast?

MS. WOO: Yes.

MS. GIRVAN: And what amount did you build into the forecast?

MS. WOO: The customer care metering OM&A has embedded some of the benefits, but there are complexities into some areas might require more costs, there are savings in other areas, so we did not specifically identify a number in our '25 to '29 period. However, it's an aggregated cost when we look at our future cost for our OM&A for customer care.

MS. GIRVAN: So, for an expenditure like this, you don't do a business case?

MS. WOO: Business case we do for projects closer to the start of execution, as I have mentioned before. For example, if we were to work on a project in 2024, we will be doing a detailed business case with costs, benefits, net present value, usually one year before the start of the project.

MS. GIRVAN: Okay. But you didn't do a business case with respect to this $25 million that's identified here?

MS. WOO: We did not do a business case, because this 25 million will be a set of projects, it's not going to be one program or one project, it's going to be multiple projects, and this number is based on detailed analysis, historical trends, historical analysis to come up with the 25. Closer to the start of execution, the business cases will be documented and can be audited.

MS. GIRVAN: Okay. Could you please turn to CCC-1B number 49. If you could scroll down, there's a chart. Keep going. Yes, there's the chart. So, we know that you retained Innovative Research to do your customer engagement, then we asked about other customer engagement that you do a certain ongoing basis. And I wanted to ask you about the customer care and customer relation management. And it goes from 14 million in 2025 to 17 million. Could you explain to me why we're seeing what I would call relatively significant increase in that aspect of your customer engagement?

MS. PAGE: Yes, if I can refer you to Exhibit 4, Tab 2, schedule 14. The customer relationship management area is made up of the contact centre, which starts on page 35. So, it includes the contact centre, it includes our escalations and special investigations group, and it includes our customer experience group.

The increase is primarily labour related, in that we're looking to increase for our customer experience area, that section is -- or that team is accountable for modernizing all of the customer care systems and processes that we use, and there's a number of new -- as Ms. Woo just spoke to, some of the 25 million will be for customer care projects that, you know, bring our systems more up to what our customers need from us as we go forward. So, there's an increase in labour there in order to implement those systems, develop the systems. And additionally, there's additional staff required to handle all of the data that is coming out of the new systems, bring customer insights from that data, and provide us some directional information for future growth and evolvement. Additionally, we are doing a little bit of in-sourcing in that area as well in our contact centre and filling some vacancies. MS. GIRVAN: Okay. How many vacancies do you have now?

MS. PAGE: I don't have the exact number of vacancies in that particular segment, some of it is vacancies, and some of it will be the net new staff that I referred to.

MS. GIRVAN: Okay. Could you go back to the interrogatory, again, on that chart. Can you explain what's the customer care collection segment? What's that?

MS. PAGE: The customer care collection segment, so in this area we, you know, the costs includes the entire segment, but with respect to the engagement, it's referring to the leap program that's managed through this collections group, but the entire group works on all of our collections related work for any account balances that are in arrears, are as I mentioned the financial assistance programs, the write-offs, the bad debt, those types of things.

MS. GIRVAN: Okay. And if you just scroll down, there's one more section. It's called asset and program management. It goes from 8.4 to 10.3, and it talks about using the City of Toronto's development pipeline. And can you explain why there's an increase of about $2 million going from 2025 to 2029?

MR. NASSO: Sorry, can you please repeat the question?

MS. GIRVAN: Sure, can you explain to me what this is? Sorry, it says it's talks about the City of Toronto's develop pipeline. I'm just trying to understand activities, and then why there's an increase from 2025 to 2029.

MR. NASSO: I think if we go to Exhibit 4, Tab 2, schedule 9, page 12, there will be some further detail.

MR. KEIZER: Well, while Mr. Nasso is looking that up, the other part of this is, Ms. Girvan, is it may have been something to -- may have been better to Mr. Huntley on panel 1, who is involved in the IESO process, and the system planning process related to solutions and the development. But so, we'll see where this witness can go, and if there's additional information, we'll have to probably take it by way of undertaking.

MS. GIRVAN: Okay.

MR. NASSO: I agree. This should be something for panel 1.

MS. GIRVAN: Okay. We can just leave that. I probably should have asked. It was -- it just came up in the context of this IR answer.

With respect to the chart that I was just referring to, could you provide the same chart in the same format for the period 2020 to 2024?

MR. KEIZER: That's fine.

MS. GIRVAN: Great, thank you. And I have one last question.

MR. MURRAY: Before we get there, can we give that a number?

MS. GIRVAN: Sorry, yes.

MR. MURRAY: That will be undertaking JT3.21.

UNDERTAKING JT3.21: TO PROVIDE A CHART SIMILAR TO THE ONE AT EXHIBIT 4, TAB 2, SCHEDULE 9, PAGE 12 FOR 2020-2024.

MS. GIRVAN: I'm trying to hurry. Just one last question. If you turn up 1B-CCC-50, and we asked about your response to letters of comment. I just wanted to clarify, there's an appendix that's about 7 pages, and it sort of describes your application. If you could scroll down. There. So, it says deer valued customer. So, were all the people that sent letters of comment sent this particular document? Is that what this means?

MR. KEIZER: I think this is probably a panel 3 question, Ms. Girvan.

MS. GIRVAN: Okay. Thank you. Those are my questions.

MR. MURRAY: Thank you very much, Ms. Girvan. Next on the list, I believe, is Mr. Daube from DRC.

MR. DAUBE: Thank you, everybody, thank you. My name is Nicholas Daube, I'm on for the Distributed Resource Coalition, all my questions today are about 2B-DRC-9. And just a heads-up for the panel, but also for Mr. Keizer: These are all about cyber security, and obviously it is not my intention to get into any evidence that would compromise your efforts to combat cyber security. So I am always all ears with Mr. Keizer's interjections.

But, Mr. Keizer, if there's anything where you think we are straying into areas where we shouldn't, and should consider a confidential record, of course, please speak up.

MR. KEIZER: We will do our best, Mr. Daube. And I hope that you are also aware of where the confidential stuff is. I think you are -- have provided an undertaking as well. So...

MR. DAUBE: Yeah, sure. I meant it more as a courtesy than...

MR. KEIZER: No, no. We will both keep our ears attuned. Thank you.

MR. DAUBE: So let's go to response A, please. And the section of your answer on that first page that begins with the words, "The integration":

> "The integration of DERs carries with it cyber security risks, particularly as such resources

start to incorporate intelligent capabilities and
network capabilities."

And you give one example in the footnote. I am just wondering, what are the other risks that you believe will accompany DER integration?

MS. WOO: So, with more DERs, there are more edge technologies and more assets in the field, in the -- in our landscape and environment and in our operating environment. And therefore, from a cyber perspective, we -- it comes with risks. And, therefore, we have a very strong cyber framework, and practices that -- to protect our customer data and protect all our assets.

MR. DAUBE: Okay. So really, the risks that you are talking about here, it goes to the increased number of entry points, rather than a specific new category of risk?

MS. WOO: We currently do already have DERs, so I would not categorize it as a new category of risk. But the cyber security landscape is evolving, so I do believe in the next few years there could be new categories of risks that come with DERs. But also, with the volume increases, the cyber security risk also increases.

MR. DAUBE: On that point, do you have any specific new categories of risk that you are monitoring, that you are watching for at the moment?

MS. WOO: Maybe let me refer you to our evidence, if you could just give me a second to find it?

If we could turn to exhibit 1B, Tab 3, schedule 1, page 22? I just wanted to bring your attention to our cyber security framework, which is aligning to the OEB CSF framework, and also to the NIST framework. So when we look at cyber security, we don't look at one asset at a time, or looking at a different penetration point. But we really need to look at five critical functions, identifying the threats and risks, protecting all of our assets, detecting if there is a threat or an incident, and then also responding and recovering.

So I would kind of focus more on a cyber security practice and cyber security investment in terms of this framework.

MR. DAUBE: Thank you. At the bottom -- if we could go back to the interrogatory response, please? At the bottom of this page, going on to the next, you wrote:

> "The utility plans to invest into its robust cyber security infrastructure and the acquisition and training of skilled resources."

What's your approach, what's Toronto Hydro's approach to formulating a plan to do this?

MS. WOO: Maybe you could rephrase your question. So if we go to our -- maybe I will refer you to another evidence, if you could just give me a minute. In Exhibit 4, tab 2, schedule 17, page 13, that really details our security segment, and how we plan to continue to build a good cyber security posture in our next five years.

In addition to that, if we turn to exhibit 2B, E8.4, page 7, that also detailed our IT cyber security practice, as well.

MR. DAUBE: Is there anything distinct about how You are formulating plan to combat the risk of -- or to mitigate concerns for cyber security when it comes to DERs?

MS. WOO: I would say we are looking at cyber security as a whole, instead of targeting only DERs. There are different smart meters that we are putting in with our AMI 2.0 program, same thing for DER. But we really need to look at cyber security as a whole, and looking at cyber security as a practice, and not kind of isolate it to one type of device.

MR. DAUBE: Okay. I will ask my questions about DERs and smart grids specifically, but I appreciate that, I appreciate what you just said in your last answer, that it may just be a general approach that you are describing.

For cyber security risks when it comes to DERs and smart grids, are there any other jurisdictions or utilities that you are following and examining when it comes to ideas and approaches to mitigate cyber security risks?

MS. WOO: We work closely with our industry leaders, we work with our peers. And, most importantly, our plan, our framework, as I said, is aligning to the NIST standard and also to the OEB CFS standards. And every year, we do have to be compliant with the OEB CSF.

MR. DAUBE: What do you mean when you say "industry leaders"?

MS. WOO: We are part of different -- membership of different cyber security membership. So we do work closely with different peers. And we also are members of Gartner.

We also have -- every year we do self-audit external audits with different cyber security expert consultants, that we do external assessment of our cyber security practice, as well.

MR. DAUBE: Are any of those peers from outside Canada?

MS. WOO: Canada, and also North America.

MR. DAUBE: And are any of those external consultants from outside Canada?

MS. WOO: Consultants are not really -- an example of a consultant could be IBM or Accenture; so they are international.

MR. DAUBE: Can we go to question C, please, or your response to question C? In this response -- well, this question asks you what you are doing to identify cyber security risks as they apply to DERs and smart grids technologies, so we've talked a little bit about this already. In your answer, in the second sentence, you say that your evaluation efforts include examination of industry best practices. It may be that you want to refer to the evidence you've already given.

My question here is: When you're talking about examination of industry best practices, what does that entail as it applies to cyber security risks for DERs and smart grids? Is there anything in addition to what you've already told me?

MS. WOO: I think the key one I would refer to industry standard is the NIST standard. Also, with the OEB

CSF framework, it also looks at -- it's really based on the NIST as well as if -- I will bring that up for you in a minute. So the OEB CSF standards based on NIST, which is the National Institute of Standards and Technology also based on what is called C2 M2, the cyber security capability maturity model that is done by the U.S. Department of Energy.

MR. DAUBE: Again, you may have already answered this in your evidence, but let me ask it to make sure. In the final sentence, you say:

> "In addition, regular assessments of the Toronto Hydro cyber security posture were performed to ensure continuous evaluation and adoption to the changing landscape."

What does that entail as it applies to cyber security risks for DERs and smart grids specifically?

MS. WOO: Again, as I mentioned before, when we look at our cyber security practice, we look at it as a whole, not just specifically for DERs or smart grids. So these regular assessments will be looking at our overall cyber security practice at Toronto Hydro.

MR. DAUBE: Is it likely that it will become more important as the number of DERs on your system increases? Will it become more important to perform any specific evaluation when it comes to cyber security risks for DERs and smart grids?

MS. WOO: Yes, that may be the case, and future assessment in the future years may have a more focus, higher focus, bigger focus on DERs. That may be true.

MR. DAUBE: What sorts of things are you going to be looking for towards determining whether that specific evaluation is helpful or necessary?

MS. WOO: The assessment is usually something we came up with every year, based on different external factors, looking at the cyber security landscape at the time, also based on some external consultants' assessment of what to assess for that particular year.

MR. DAUBE: Okay. Thank you very much. Those are my questions.

MR. MURRAY: Thank you very much, Mr. Daube. Next on the list is VECC. Mr. Garner.

EXAMINATION BY MR. GARNER:

MR. GARNER: Good afternoon, panel. Hopefully, you can hear me. My name is Mark Garner, and I'm a consultant with the Vulnerable Energy Consumers Coalition. I only have a few brief questions, and the first one I would like to start with -- there are actually two questions, and they are both assigned to this panel. One is at 1B-VECC-8, but 1B-VECC-8 actually then refers to 4-STAFF-296. I just, if we just, I think -- and, actually, there's another interrogatory they are all related to, which is 4-VECC-65. Maybe that's the best place to start.

At 4-VECC-65, there's a table 3, I believe, in that, in that interrogatory. This is just to help me in my confusion about an issue about locates and about the -- I don't know how you pronounce it -- the GOCA account, however you want to pronounce that awkward acronym.

The first question is: When I look at the table that's referenced here from the evidence, you see the line that says "public safety and damage prevention." In that line, am I right that that includes the coast of locates, but it also includes some other costs inside that line?

MR. SMART: So that line includes the cost to deliver and administer locates and nothing else.

MR. GARNER: And nothing else, okay. Then that leads me to my next place, which is to go to the interrogatories at Staff-296 because I'm just -- I've got a couple of questions about that table, and it's unfortunate if you had both of them at the same time.

In Staff's response at response E, page 4 of 5, they asked you to do an analysis that would try to show the variance of this GOCA account, and I was trying to match up what you were trying to show in this table to what we were just looking at for locates. So the numbers, it didn't seem to me, matched, at all.

So, on public safety and data prevention, the numbers you have in this example -- and maybe just because they are just illustrative; they're not real in any sense. I'm not quite sure. They don't match, for instance, the two 2021-2022 numbers that we just looked at for public safety and damage prevention.

So, in the prior table 3, for instance, 2020 was $4.7 million, and in this one it's -- it's a little hard for me to understand which one of these it is. It's

$2.8 million, though.

Can you help me with just that basic math problem of: What am I looking at in comparison to those two tables when I look at the line "public safety and damage prevention," which you're telling me only includes locates?

MR. SMART: Correct. So I would point you towards the second sentence under response E, so:

> "In preparing this forecast, the utility has excluded locate costs related to street lighting assets that are not part of the non-capital-related revenue requirement."

So we've taken that line item from Table 6 in the evidence and removed the costs that are attributable or covered, I guess, by -- I want to use the right term, but a revenue offset associated with the street light system.

MR. GARNER: Okay. If I can say it back to you: What the table is trying to tell me is the GOCA account isn't going to capture the variances related to street lighting et cetera, so, in order to show us an illustrative example of what would be recorded in the accounts, you took that out of that line?

MR. SMART: That's correct.

MR. GARNER: Right, so another way to say it: If I look at the numbers, for instance, 2020 in and it was, I said, $4.7 million; here it has $2.8 million; I subtract those two to talk about the number of residential GS50, under- and over-50 type of locates that you're talking about?

MR. SMART: Just a point of clarification: Like, locates would be independent of the customer class; like, it's related to the infrastructure.

MR. GARNER: Right.

MR. SMART: But I think the rest of what you're saying is accurate. This is related to distribution plant.

MR. GARNER: Okay. Thank you. Thank you for that. The other thing I'm wondering if you could do for me is to -- you have a table, this response has a table, at page 3 of 5, and this is where I'm a little confused here. This says "actual and forecast locate costs," and here, for instance in 2023, that's $7.3 million, and that should match, and it does, the $7.3 million you have in the Table 3. We looked before. I'm wondering if you could take this table and extend it backwards or put it backwards so that it included the 2020 to '22 period. And you have most of that information, I think, at 4-VECC-65, except you don't have the volume number. So, to make the table complete, I would need the volume number. Is that possible for you to do with not too much effort?

MR. SMART: Sorry, I'm just checking. I don't think that would be an issue.

MR. GARNER: Yes, okay. So, if I can ask for an undertaking, and it would be to take Table 1 at 4-Staff-296 and recast that table to include 2020, '21, '22.

MR. MURRAY: That will be undertaking JT3.22.

UNDERTAKING JT3.22: TO TAKE TABLE 1 AT 4-STAFF-296 AND RECAST THAT TABLE TO INCLUDE 2020, '21, '22.

MR. GARNER: Thank you. I'm going to move to a very different area, and, Ms. Page, I think this is for you, and maybe with a bit of apologies to, Mr. El-Hage, that there is a spreadsheet that I just saw the e-mail that we might talk about. But I don't think we really need to bring it up too much, it's kind of self-explanatory. The interrogatory basically asked you to give us a summary of the call centre activity. And, in fact, that's what's in the appendices is a summary, but it wasn't what I was expecting, and it may be that I should have said what we were looking at more closely.

But what I was expecting to see was a report that you or someone in your group look at periodically which explains to you the type and nature of the calls you're having.

So, yesterday Mr. Ladanyi had a conversation, I think with Mr. Higgins or the day before, I can't recall, and they were talking about different things about outages and reports about outages, and he made the remark that, you know, this -- the call centre would capture this type of stuff.

And so, I was interested really in a report that talks about that so that we at VECC could get a better understanding of the type of concerns that you are receiving from your customers, whether it's late payments, you know, how their late payments are being handled, whether it's outages, you know, whether it's, you know, crews that they're complimenting or complaining about, whatever it is, you know, however. Do you do such a report like that?

MR. KEIZER: Do you have what the interrogatory you're referring to?

MR. GARNER: I'm sorry, Mr. Keizer.

MR. KEIZER: I didn't hear it.

MR. GARNER: The interrogatory, let me just -- it's 1B-VECC-9, I believe, and the appendices, sorry, are 1B-VECC-09, Appendix A and Appendix B, and I think they're 22 and 23 of the two red sheets that you've provided.

MS. PAGE: Yes, that's correct. So, yes, I guess it was just the way your question was phrased, this one is a little more particular, and I thank you for that detail.

So, yes, we do have in our contact centre, we do have the ability for our staff to code the call by category, and so we do get reports of the types of calls that our customers are getting. So, if that's the report you're looking for, that's something we have.

MR. GARNER: Yes. And to be specific, I mean, what I'm really trying to understand, probably like you are, is what are the major concerns, and I'm not sure if you do it on a monthly basis or biannual, maybe you can help me with that, too, basis. What you take a look at to be able to get a snapshot to report to your superiors, you know, we have, you know, let's say, we're getting complaints over here about lots of outages, or, you know, everybody is saying our trucks stay rumbling too long and they should be shut off, whatever it is, do you know what I mean? How do you make that kind of reporting?

MS. PAGE: Sure, if I can just provide you with an explanation of how we do that. So, in our contact centre software for calls, we can set up categories of calls, so if a customer calls for collections, for example, or they want to understand their bill a little bit better, then that category would be available and the agent would code the call that way.

It's limited in how many categories we can have, so one of the -- so, for example, if there's something emerging, like how many questions getting on DERs, that might not be an available code, because it's a new item, so we would have to sort of take away a code and add a code in order to start tracking that.

What we're looking to do is add some technology that helps us with the speech analytics that can pull this information out of our calls and using AI better categorize it so that we can capture the emerging needs and behaviours of customers a little bit better. So, I do have, if you'd like a report, I do have the categories that we use now, they're not necessarily capturing as much of the emerging stuff that would show up in a miscellaneous type of category at the moment.

MR. GARNER: Right, fair enough. And how many reports per year would this be? I don't want to overwhelm you with giving me, you know, a weekly report that you see, but how -- what's the -- how do you review the reports?

MS. PAGE: I believe we're looking, I can't speak specifically at how often the analysts would look at it, but the management team would be looking at it on a monthly basis.

MR. GARNER: Okay. And is there any roll up at the end of the year or anything like that of the reports that you do at the senior level to get that snapshot of the activity of...

MS. PAGE: I don't believe -- probably. They're rolling it up, but that would be at the manager level that they're looking at it. I think because, you know, we tend to look at things on a more frequent basis, that the annual view isn't as helpful as ensuring that we're monitoring the changes in customer behaviour more frequently.

MR. GARNER: Right. Would it be a burden to produce the last year's 12 months' worth of reports that you've looked at? Are they a large volume, or are they...

MS. PAGE: No, we should be able to roll that up into an annual view.

MR. GARNER: Mr. Keizer, there's no objection?

MR. KEIZER: Sorry. The witness had indicated to be able to roll it up into annual view, is that acceptable to you?

MR. GARNER: I don't think that's necessary, I think that would be helpful, if it's not too much work. But I think I would probably also like to see the, I guess it would be 12 reports, right?

MS. PAGE: Sure. And you would like that for the past year?

MR. GARNER: For the most recent 12 months, let's say. Meaning not counting this one, and I'm not sure how, you know, it might be February might be your last report, right? Whatever your last sort of one is.

MS. PAGE: Sure, that's something we can do for you.

MR. KEIZER: That's fine.

MR. GARNER: Thank you.

MR. MURRAY: That will be undertaking JT3.23.

UNDERTAKING JT3.23: TO PRODUCE THE LAST YEAR'S 12 MONTHS' WORTH OF REPORTS SHOWING DATA ABOUT CUSTOMER FEEDBACK

MR. GARNER: Right. Thank you. This is not a question, but it came up from -- and this is because I was hoping to see this type of information, so maybe you can just help me with this while I have you here.

One of the things, for instance, we're interested in is the issue about late payments. And can you tell me for customers -- I'm one of your customers, and I've interacted with your call centre, which is quite good, let me say, from my perspective. But when a customer is overdue, does a customer, do you do an e-mail and phone and type of pre-late kind of be aware you're going to be late type of thing? I know some utilities do that; do you do that?

MS. PAGE: Yes, that's something we do. The first contact is an automated phone call to let the customer know that their account is in arrears, and that happens a few days after the due date. That's followed up by a letter.

MR. GARNER: Okay. Right. Thank you. And I hate to admit it, but I've gotten the call. But I've never gotten an e-mail, and I'm an account holder and so I was always -- some of them do e-mails, right? I get an e-mail. If you are a paper biller versus an online biller, is there any difference in how you're alerted to those things?

MS. PAGE: Not at the moment, at the moment you're getting the call and the letter. However, as part of our technology investments, that's going to be a capability that we have in the future.

MR. GARNER: All right. Thank you. And I'm not sure if I asked this somewhere else, so pardon me if we did. Does Toronto Hydro take credit card payment?

MS. PAGE: Toronto Hydro takes credit card payments for customers who are up for disconnection currently. We're in the process of moving that from an in-house system to a third party system for processing, which will then allow us to open up credit cards to our entire customer base.

MR. GARNER: Would that be the one I'm familiar with other utilities where there's a surcharge for the third party's use of the technology or whatever?

MS. PAGE: That's correct.

MR. GARNER: Right. Okay. Thank you. The next place I would like to go is -- sorry, I'm jumping all around here, but is 4-VECC-62, I believe. And the gist of this interrogatory was to explore the rising number of managers because of the rising number of projects, in essence.

And the question was really trying to understand just because your project -- like the dollar number is getting bigger, why does that necessarily equate to a greater number of managers, it might but it might not. For instance if you were doing a big station, it may be the same as maybe less than if you were doing five smaller projects.

But just looking at the table which is on page 2 of this interrogatory, how -- I just want to make sure I'm reading this table correctly, in this sense. If I'm reading this table, in 2020, would I be reading it as you were -- I hate to use the term, but to use it, less efficient than you are in 2022, because the number of dollars per manager being managed is lower. So, the lower that number is, the kind of less efficient you are and the kind of, like, higher that number is means I've got managers, you know, taking more of my, like, with more dollars underneath their view. Is that kind of how I read that?

MR. NASSO: So I would not read it that way. The dollars equate to projects. You could have a lower dollar value with a very complex project that requires more commitment in terms of staff. So I would not read it that way.

Again, it varies. The work is increasing. The work is getting more complex. And so, when we provide you a range of a manager looking after 11 to 13, that's actually a veteran manager. When you hire new people, they can't take on the 11 to 13; they will have to go to a lower dollar value. Does that answer your question?

MR. GARNER: Yeah, it does in a way. I guess what I was trying to figure out is when you did -- because you actually have an increase. I can't recall in this interrogatory, there's a number of -- a significant increase in managers supervising.

And what I was trying to figure out was how did you figure that out in the sense of I know it's a bigger budget that you are proposing but, to your point that you are making, how does one understand that it's also just bigger projects and it takes -- it could take less managers, do you know what I mean? Because it's just -- let's say "He is doing nothing but stations," and so, "Hey, I only need one person to do that." Right?

How did you get to the point of, "I know I need this many more people," with that thing.

MR. NASSO: We've been doing this for, well, let's say, over 10 years or more. The experience of that group looked at the workload, looked at the upcoming type of projects, and in fact this was feasible. Their experience in doing this type of work provided that kind of benchmark.

If anything, I think this is kind of very conservative, at that, as well.

MR. GARNER: And if the board or in some other part of this process, the capital budget gets reduced, let's say significantly just to make the example easy, does one then immediately go here and say well, "I should reduce these lines too, in some fashion"? And, if so, how would I do that?

MR. NASSO: We would have to take a look at that, at that time.

MR. GARNER: Because I was hoping you would give me a way to do it, but that's fine. Okay. Thank you.

I think I only have one other area, and it was actually a follow-up from panel 1. And, Ms. Page, I am sorry, I think it's back to you.

I had a discussion in panel 1 about scheduled outages. And the discussion went around the fact that they are not in one of the metrics for the PIM, and they have -- or in the proposal, et cetera. And I got into asking about how scheduled outages work and how they are communicated to customers for a scheduled outage.

And maybe, can you help me on that? Is every scheduled outage communicated, every -- and how so?

MS. PAGE: We have a team that handles communicating to customers about scheduled outages. And I honestly don't know the specifics of how they do it, so I may have to take an undertaking if you would like to know the specifics of how they do it.

MR. SMART: Actually, I could provide maybe a little more detail, and we can see if that's sufficient to answer your question.

MR. GARNER: Sure, Mr. Smart. Please.

MR. SMART: So the need for a scheduled outage is determined by the construction crew that is executing the work. So as part of their planning activities to get the work done in the field, they will identify, you know, the zone that they are working in and, as a result, the section of the distribution system that needs to be isolated and de-energized in order for them to complete their work safely.

Once they make that identification, we have a requirement that all scheduled outages, or any customer impacted by a scheduled outage is notified in advance. You know, the specific criteria vary depending on the impact or the scope of the outage, the duration, et cetera, et cetera. There are some other considerations as well.

To my colleague's point, we have a team that supports the delivery of notices to customers with respect to outage timing and outage duration, and the purpose of it.

So that is, in a high-level sense, how that process works.

MR. GARNER: Thank you, that's helpful. Let me explore that for a minute, though. It's not, I take it, then, done through the call centre system; it's not like a phone call through the call centre system saying a crew is going to be in your neighbourhood in three days, and the expected outage is an hour and a half, and please take note or whatever. That's not how it's done?

MR. SMART: There are several different, I guess, methods of communication that we would use, depending on the project. In some cases, it's an auto-dialler, so a phone call. In some cases, it's a letter. In some cases, it's a door hanger. And, in some cases, it is the crew knocking on the door.

And the specific method that we use for a given project, again, depends on the circumstances and the characteristics of that project.

MR. GARNER: I can see that, and I mean, I can understand some outages are very short and a crew is there very quickly, and you are not going to go to all that effort, for instance, to do something.

But it would seem to me that Toronto Hydro would have a set of criteria that would say, you know -- let's say if an outage is more than 20 minutes, we have to do X; if an outage is more than three hours, we have to do Y. You know what I mean? - a set of guidelines for its crew and other people on how -- what it expects. Does it have such a thing?

MR. SMART: Yes. We have practices, I guess, for what type of notification, how much notification is necessary, depending on the project. And the vast majority of planned work, for example, where the crew has time to plan the job and, you know, looks at things, days or weeks in advance. That would typically be some combination of written notice to the customer, or the phone call.

MR. GARNER: Right. And in the case of written notice, if there's a change in the scheduling as there might be, right, from different things happening, is there another written notice? Is it just sort of bypassed? Do you monitor that you actually meet your -- what you have said to the customer?

MR. SMART: So to the extent that there's a change ahead of the outage taking place, I can't speak to exactly what the process would be. I would presume that we would notify them by some means. But I would have to go back and check exactly what our practice is there.

I think the second part of your question, just to clarify, is looking at, you know, if the outage takes place and, you know, it takes longer or something like that, were you asking about communication in that situation?

MR. GARNER: And are the crews provided -- does the crew define what the outages are going to be? Or are they provided with an expectation so that, if they are monitored by, you know, this job should be an hour outage and, in fact, let's say it's three hours' outage, and someone comes and, you know, does an assessment and says why did that happen and, you know, there's some, you know, learning from it. Is there anything like that happening?

MR. SMART: Yeah. So the way it would work is it's up to the crew to determine what, again, the scope and the duration, based on the nature of work. So there is no standard outage for a particular type of job because it depends entirely, as I am sure you can understand the circumstances that they are dealing with in the field, and they have to work safely.

You know, we monitor, I guess, the performance in that regard. You know, so what would happen is the crew would submit a work request to the control room with an outage start time and an outage finish time. We would have that in our records. It would go up on our planned outage map, online.

And if the duration of the outage, you know, significantly or -- I should say exceeded the -- like, if the power wasn't back on by the time that they had originally planned, that's something that we would notice in the control room and, you know, depending on the circumstances, if it's not obvious from what's happening in the field and, you know, something obviously that happened with respect to the work, we would do that assessment after. And it would be most likely the manager of the construction crew that would look at that and ask those questions, and identify any corrective actions going forward.

MR. GARNER: And so finally, is there -- I can't imagine a new person on a crew would understand how to do this without some sort of guidance. Does Toronto Hydro produce guidance for its crews and/or managers for this is how this should work?

MR. SMART: Yeah. So it would be the crew leader who typically stakes responsibility or is responsible for planning the job, including the scope and duration of any necessary planned outages. And the crew leader, you know, it's a defined position, and it is typically someone who is more experienced and spent time as member of a crew. So it would never be someone who has never done this before put into that situation.

MR. GARNER: You know, not to put too fine a point on it, not to argue the point, but to try to get you to where I am going, in all of this, is I am looking for the documentation from the utility that basically says this is a customer's bill of rights on something that's going to happen. These are what you can expect from us, especially if you are going into a proposal where you are yourself saying we are going to do lots of projects and we are going to have lots of scheduled outages.

And yet, what you are seemingly saying to me is, but there is no thing that a customer can look at and then phone the call centre and say "This isn't right, you know. This isn't right. No one contacted me, and no one did this. It's just not the way I was expecting it."

And so I'm looking for you to help me to say I can give you something that tells you this is kind of what customers can expect and that we can look at and say, okay -- and we might even have a discussion around it and say, okay, but why can't they expect this, and you could explain, no, they can't because of this.

Do you have anything to offer in this case that my client could used to deal with that issue?

MR. SMART: So there are certain, you know, obligations that we have under the distribution system code, but I can maybe take it by way of undertaking to provide a response to --

MR. GARNER: If you could and if you had something, and I think I'm looking at Ms. Page, too, because what I'm trying to figure out to myself is, if everything you would like is approved and you do go down this avenue, it seems to me, as one of the issues that my client is very concerned about, is, well, how does this impact their service; how do they communicate when they see something that they don't think is working well; how do you learn from that and say, yes, we get it, and, next time we're doing this, we're going to do it a little differently because we get the problem -- you know, that kind of feedback that's going on on a big project.

So, if you do, that might be helpful, and, if you would make it an undertaking, I think with the proviso, I think, Mr. Keizer is going to give me, which is I'm not sure and you're not sure what exactly you're going to find, if anything, right?

MR. KEIZER: That would be the proviso, yes.

MR. MURRAY: Mr. Garner, maybe for the record -- because that was a bit of an iterative process with a bit of back and forth. If you could, just kind of summarize the undertaking to help the court reporter.

MR. GARNER: The undertaking that I hear -- and, Mr. Smart, you can chime in -- is that Toronto Hydro will review whether what guidance it has or, or -- I'm trying to think -- of training document guidance it has for expectations of outages and length of outages and reporting, notifying customers of outages, that exercise of doing a project that has a scheduled outage. Is that awkwardly said?

MR. KEIZER: So is it -- can I give it a try?

MR. GARNER: Sure, Mr. Keizer, please.

MR. KEIZER: Basically, it is effectively the communication protocol between Toronto Hydro and the customer with respect to scheduled outages?

MR. GARNER: I think you say it much better than I do.

MR. MURRAY: And that will be undertaking JT3.24.

UNDERTAKING JT3.24: TO DESCRIBE THE COMMUNICATION PROTOCOL BETWEEN TORONTO HYDRO AND THE CUSTOMER WITH RESPECT TO SCHEDULED OUTAGES.

MR. GARNER: Thank you. If you just give me one second, I do believe those are all of my questions. Maybe, Ms. Page, just to confirm -- I did hear this, but, just to confirm, you said that the call centre does not delineate by customer segment its reporting complaints.

But what I took from what you said, though, because you use codes and you have changed them from time to time, some I imagine are fairly standard and keep because they stay there a long time, a lot of people phone with the same thing, and then some of them, as you say, are evolutionary; they capture new things. Right?

So what I'm interested here is that, that, the -- there's a class of customers called the suite-metered customers, and I just am interested if they are at all captured as a group when their calls come in, separately from other customers?

MS. PAGE: My apologies, but I couldn't really hear the full question. Can you repeat it for me?

MR. GARNER: Well, the first part was just me meandering around what you told me, which was that you told me that, when you collect your data at the call centre, you are not doing it by customer class. Is that correct?

MS. PAGE: We break it down into residential and commercial.

MR. GARNER: Right. So let's say the suite-metered group of customers, would they be separated out from that group?

MS. PAGE: They would be --

MR. GARNER: -- in and of themselves?

MS. PAGE: -- included in the residential group, so it's not separate.

MR. GARNER: It's not separate. And the only way they would be separated, I take it from what you were saying to me, is if some issue evolved and you were then tracking that issue, as you said, in a new code that you wanted just to keep track of that. That's the only reason they would show up as a group. Or any customer, if they had some issue that you were -- because you told me codes change from time to time to try to capture new issues with it. Is that right?

MS. PAGE: Right. We do change the code, but the code applies to all calls that come in on a certain queue. So we have two queues, one for residential and one for commercial. So --

MR. GARNER: Oh, I see.

MS. PAGE: -- the suite-metered customers are just mixed in with the residential, so I can't separate.

MR. GARNER: I see.

MS. PAGE: I can't do a code --

MR. GARNER: Right.

MS. PAGE: -- just solely for the suite-metered group.

MR. GARNER: Right. Okay. Thank you. And that's all my questions. Thank you. Thank you, panel, for that.

MR. MURRAY: Thank you. We're about to get the last questioner, which will be OEB Staff. But, before doing that, I just wanted to give people an update in terms of timing. This will be the last one for panel 2. I don't know if panel 3 is in the building or is relatively close, but I anticipate we will probably start with panel 3 sometime between 2:45 and 3:00. So we're going to go with OEB Staff first, and then we're going to take the break and then panel 3, but, if they aren't already en route or reasonably --

MR. KEIZER: They are.

MR. MURRAY: -- proximate, maybe we should --

MR. KEIZER: We're ready to go. We're ready to go.

MR. MURRAY: Excellent. With that, I will hand things over to Ms. Defazio -- oh, sorry, to Mr. Zanini.

EXAMINATION BY MR. ZANINI:

MR. ZANINI: Hi. Daniel Zanini, senior advisor, performance analytics and reporting on the OEB Staff. First question is on 1B-CCC-16, response B, just some clarification on terminology. Response B, please, a bit higher up, letter B. Yes, there. Oh, no, further up. Page 2. Okay, yes.

In line 14 or 13 to 15, it's mentioned that a change in the count of vehicles removed went from 132, and then the word "replaced" was put in instead of "removed" for the 163 vehicles. Was "replaced" really supposed to be the word removed or out of fleet?

MR. HOMSMA: Yes, sir, that's a mistake. Good catch.

MR. ZANINI: Okay. And then, on that table, the last column, the two terms in brackets, C plus D, are those actually supposed to be added together and then multiplied by seven years in the total number vehicles since column C is supposed to be the total cost avoidance by class?

MR. HOMSMA: Yes. I made a note in my binder saying the same thing.

MR. ZANINI: Okay.

MR. HOMSMA: Yes, sir.

MR. ZANINI: So it's just supposed to be column D, times seven, times number of vehicles?

MR. HOMSMA: Yes, so C, column C, times D, times seven years.

MR. ZANINI: So, sorry, you said "column C, times D"?

MR. HOMSMA: Sorry, B, the number of vehicles, 62 --

MR. ZANINI: Yes.

MR. HOMSMA: -- times the average opex cost of $4,000, using the light duty example --

MR. ZANINI: Yes.

MR. HOMSMA: -- so B times D, times seven years.

MR. ZANINI: Yes. Okay.

MR. HOMSMA: That's it.

MR. ZANINI: Thanks.

MR. HOMSMA: Sorry about that.

MR. ZANINI: My other question is on IB-Staff-55, response I. So I had asked: Would 5 kilometres or less of driving for a vehicle in a given month be representative of typical drive times for fuel productivity? And the response was essentially no.

So my question is: Why were vehicles that had 5 kilometres or less drive time in a given month included as part of the drive time study?

MR. HOMSMA: So, by creating those, the statistics, in terms of drive time per location, we included our, all of our, vehicles. So, when reading that question, I was under the impression that you were of the impression that some of our vehicles are only driving 5 kilometres a day.

MR. ZANINI: So the way the spreadsheet was provided, it would show a row item for a given vehicle, the total kilometres driven within that month for a home zone, I believe the terminology is.

MR. HOMSMA: Yes.

MR. ZANINI: And quite of few of those data entries or rows had 5 kilometres or less for the given month, like total kilometres for a given month for that vehicle. Since the analysis of that table was essentially being used to justify a congested urban productivity kind of adjustment for the benchmarking, I'm just wondering why you would include drive distances, total drive distance, of less than 5 kilometres in a month to be indicative of affecting productivity when it comes to the congested urban productivity.

MR. HOMSMA: Yes, so all of our vehicles are used throughout the day, and, when asked, when producing a chart to show how many minutes it takes to drive a kilometre, you can take all kinds of different examples and removals and assumptions, but that's the way we calculated it.

MR. ZANINI: Okay. Thanks. That's all the questions I have.

EXAMINATION BY MS. DEFAZIO:

MS. DEFAZIO: Hello. Hi. I'm Margaret Defazio, OEB Staff. Mr. Garner ended with suite meters. I would like to start with them, please. If we go to Exhibit 4, Tab 2, section 1, page 39, please. Okay, and line 15. Okay. Here it says Toronto Hydro's 94,000 suite meters. I just like to confirm, is that 94,000 suite metered customers, or 92,000 suite metering, I don't know what the central intelligent boxes are called, those modules?

MS. PAGE: Hi, that's 94,000 customers.

MS. DEFAZIO: 94,000 customers, okay. Thank you. Are you able to provide how many suite metering modules or systems there are? And I have a couple of questions, so it may be way of an undertaking. I'm looking for how many actual systems you have of those discrete systems, can you provide the number that were installed by year of installation, and can you provide the number of those units that require seal extensions from 2020 through 2029?

MS. PAGE: Hi, just to clarify, by systems, do you mean meters themselves, or are you looking at the communication technology as well?

MS. DEFAZIO: Just the meters themselves. The units that connect to the CTs.

MS. PAGE: Okay. I don't have all of that information with me, but I can produce it by way of undertaking, if that's helpful.

MS. DEFAZIO: Thank you.

MR. MURRAY: That will be undertaking JT3.25.

UNDERTAKING JT3.25: TO PROVIDE THE NUMBER OF SUITE METERS INSTALLED BY YEAR OF INSTALLATION, AND THE NUMBER OF UNITS THAT REQUIRE SEAL EXTENSIONS, 2020-2029

MS. DEFAZIO: If we can now go please to exhibit 2B, section E5.4, page 9. It's line 13. It says in 2021 segments of Toronto Hydro's meter population began to surpass the 15-year life span, and the section goes on to talk about the risk of failure with that 15 year life span. Can you confirm that Toronto Hydro's meter replacement program assumes that the failure rate is related to age of the meter, and not to meter condition or probability of failure?

MS. PAGE: The replacement plan is based on a number of things. If I could draw your attention to interrogatory 2B-Staff-144, I believe.

MS. DEFAZIO: Okay. Thank you. Has Toronto Hydro started to see accelerated rates of failure amongst the smart meters?

MS. PAGE: I wouldn't describe it at this point as an accelerated rate, it's variable year over year.

MS. DEFAZIO: Could you provide the last couple of years failure rates of the smart meters? Perhaps back to 2020?

MS. PAGE: I believe I have it in an interrogatory. Just let me see which one. So, if I can turn your attention to 2B-SEC-64, response A. In that chart it shows the number of meters that have failed since 2020.

MS. DEFAZIO: Thank you. Could we please now turn to 2B-Staff-264. And this is relating to stations facilities and office facilities. Could you please undertake to provide recent, or the most recent, asset management or condition assessment reports of the station facilities that Toronto Hydro is proposing to do repair work on during the test period?

MR. HOMSMA: That -- there's a number of reports that go into our projects. Like many other projects at Toronto Hydro, we haven't gone into the detailed scope development. So, we have building condition assessments at a station level, we're able to provide, you know, a risk priority number based on the probability of fairly, the impact of fairly, and the condition.

MR. MURRAY: Sorry, is your microphone on?

MR. HOMSMA: Sorry, maybe I'm not talking close enough there. So, we are able to provide the condition assessments per station building, and obviously the -- with that comes the, you know, an impact measure, a probability measure, and then the condition itself. All of those assets at a unit format level is ranked in terms of what is the highest -- the highest building structure component that's, you know, at risk of failing, or the highest station that's at risk of failing. As we develop our programs, we use that data to make the decision. So, you know, based on the evidence, we've included pictures of, you know, Windsor station as an example. That station is old, it has the data that supports a program, so it can provide, you know, that specific to that station. But as we develop our program, typically the year before we execute it, that's when we reassess and go back to that.

So, I will not have a five year program with exact scope on a station by station level. That's developed usually the year ahead of time.

MS. DEFAZIO: So, I'm thinking back to some discussions I believe we had with panel 1 yesterday about this not being a project based DSP. So, I guess it's that you don't have the list of projects. Would you have a list of stations for 2025 at this point?

MR. HOMSMA: I would say Windsor station is definitely a station we need to focus on. We've shown pictures in our evidence. The other component to consider, you know, through asset management program, we speak to --

MR. MURRAY: I'm sorry, I think your microphone might be off again. Maybe it's...

MR. HOMSMA: Can you hear me now? Hello?

MR. MURRAY: Much better.

MR. HOMSMA: That's strange. I am almost kissing this thing, here.

So, through our asset management program, we also have reactive projects, too. So if we get very tight on a project that we need to execute next year, and something more serious happens prematurely, we have to be able to pivot quickly. So those are the challenges we are facing: very old buildings that need work, and, you know, our budget can be justified and we are making the right decisions, you know, with ratepayers in mind. And obviously, there are risk-based and impact-based discussions, like, decisions that we are making.

MS. DEFAZIO: So just to summarize, you don't have a list of projects and costs planned out at this point in time; it's too early for 2025 and beyond?

MR. HOMSMA: Yes, that's correct.

MS. DEFAZIO: Okay. Will Toronto Hydro be integrating its stations' facilities and its office facilities into the ISO asset management program? .

MR. HOMSMA: Yes. So our station buildings have started on that program. We are -- because we are housing station assets, distribution assets, we felt that it was important to be part of that program. And we have also included our work centre. Since we manage those buildings, as well, we might as well integrate it, altogether.

MS. DEFAZIO: Excellent. Thank you.

MR. HOMSMA: Thank you.

MS. DEFAZIO: Could we please to go 2B-Staff-269B.

So, in this response, Toronto Hydro indicates it has contingency plans to ensure EV charging infrastructure at its facilities will continue to operate during prolonged power outages. And I guess this just goes to the question, do you have the power to restore the power? Could you provide these contingency plans or a summary of these contingency plans?

MR. HOMSMA: Yes. So, obviously, that's a major concern for us, you know, electrifying our fleet as an example, how will we be able to respond to an emergency. So our buildings have back-up generators to power, so that we can respond to power outages appropriately.

Obviously, the climates are changing in terms of electrification and vehicle electrification. So we are lucky that we already have that generation in place.

I can get into specifics, like 500 Commissioners has four 1.5-megawatt generators, but we are definitely covered.

MS. DEFAZIO: So the generators, your current generators are sized that they can take the vehicle charging load, as well?

MR. HOMSMA: Yes, at this time.

MS. DEFAZIO: Okay. Regarding fleet, could you please go to Exhibit 2B, E8.3, page 2, line 15.

So you talk about the fleet asset management strategy, and asset condition assessment. Could you provide a summary of fleet asset condition assessment, similar to how we do with distribution assets?

For example, classification of vehicles with the total number of vehicles, and then that number split up over some type of rating, however you do your own asset management for the fleet?

MR. HOMSMA: Are you looking for the actual data for each vehicle? Or a template that we would typically have filled out for each vehicle?

MS. DEFAZIO: I would be looking for a summary table. So, for example, I don't want a report on every pick-up truck. But you have so many pick-up trucks, and X percent have been assessed in this category, and X percent have been assessed in another category, and what those categories represent?

MR. HOMSMA: I understand. In this evidence here, we speak to our short-term and long-term asset management program. So typically, the zero-to-two-year time frame, we would definitely have that data.

So would you want 2025 and 2026 vehicles that we expect to replace in 2025 and 2026? Or would you just want, like, all of our vehicles over the period? Like, what I am getting at is the zero-to-two-year time frame would be reasonable for us to provide.

MS. DEFAZIO: So I am not looking for a replacement plan, but their current conditions, the current assessment.

MR. HOMSMA: Yeah, so based on our long-term strategy, we would look at the LCA, the life cycle of the vehicle. Let's just say, if it's a 10-year vehicle that needs to be replaced next year because it's 10 years old, the next step would be to do the condition assessment and validate whether it is required or not.

So what I would request is if we could provide that data for all the vehicles that are within a two-year window of replacement, relative to the LCA.

MS. DEFAZIO: Okay. And could you then just include the vehicle numbers that haven't been included in that assessment, as well?

MR. HOMSMA: Yes, we could do that.

MS. DEFAZIO: Thank you.

MR. MURRAY: That will be undertaking JT3.26.

UNDERTAKING JT3.26: TO PROVIDE A FLEET ASSET CONDITION ASSESSMENT, FOR THE VEHICLES WITHIN A TWO-YEAR WINDOW OF REPLACEMENT, RELATIVE TO THE LCA; TO INCLUDE THE VEHICLE NUMBERS THAT HAVEN'T BEEN INCLUDED IN THAT ASSESSMENT.

MS. DEFAZIO: Would Toronto Hydro be integrating its fleet assets into the ISO management system?

MR. HOMSMA: Yes. So this period, the 2025 to 2029 period, we will be.

MS. DEFAZIO: Okay. Excellent. If we go to page 7, and it is on line 1, I think it is. So here, it says the average age of the fleet for the 2025 to 2029 rate period is 5.4 years. And then if we go to page 15? And that is line 12.

This option, the managed fleet deterioration, translates to a 5 to 7 percent increase in average vehicle age across the fleet. So when I did the math on 5 to 7 percent on 5.4 years, it didn't match the results on page 18 -- if you go down to page 18?

So here, it shows the average fleet age at 6.7 years under the deterioration option, which is higher than the 5 to 7 percent of 5.4 years. So I was just wondering about the math.

MR. HOMSMA: Sorry, I think where we started, I believe I saw 2024 is at a 4.9, not a -- we are expected to get to the 5.4, under this option.

MS. DEFAZIO: Under the sustainment, yes. But --

MR. HOMSMA: If we go back to, I believe it was line 2 on page 7, where we started?

MS. DEFAZIO: Okay.

MR. HOMSMA: Right there. So the 2024 period. We may have to go up.

MS. DEFAZIO: Can you just do an undertaking to show me how you got those 6.4 years under "Deterioration", or whatever the 6-point-something value is in table 8?

MR. HOMSMA: Yeah, I think we could provide that. The challenge with average age is every vehicle class has a different average age. We did answer an interrogatory where we provided our decommissioning plan that shows all of our vehicles that we have replaced, and the age they were when they were replaced. And you could see that we are managing these vehicles well, in terms of age.

When you take that average age, and you have different numbers in every different class, it can change and swing quite drastically, one example being a heavy-duty bucket truck has a longer life cycle. So if we have older, heavy-duty bucket trucks, it will make -- it will show our average age as a fleet at a 6.7. But those bucket trucks are required for our fleet workers to execute our program.

So it's very difficult for us to show that, and come out with a meaningful goal, because you have to look at it at a bucket-by-bucket level. And, you know, in a double-bucket truck -- sorry for all the buckets here -- but for a double-bucket truck, they have a longer life cycle. And they are the most critical asset for our customers, which are the crews. So I just wanted to raise that point as well. We could provide that math. It's just there are a lot of caveats behind it.

MS. DEFAZIO: Mm-hmm. Well, the comparison of your plans is done by showing the average age after the different investment levels, so I would like to understand that, if you could.

MR. HOMSMA: Okay. I understand, thank you.

MS. DEFAZIO: Thank you.

MR. MURRAY: That will be undertaking JT3.27.

UNDERTAKING JT3.27: TO SHOW THE CALCULATION OF THE 6.4 YEARS UNDER DETERIORATION IN TABLE 8.

MS. DEFAZIO: I'm going to try here. We have an undertaking on the last panel for this, but it's a quick one if you know it. Toronto Hydro has referenced the Building Transit Faster Act. Do you know what agreement Toronto Hydro and Metrolinx have come to regarding the apportionment of relocation costs under the Building

Transit Faster Act?

MR. NASSO: Yes, I'll be able to answer that. Can I take you to section 2B, E5.2.3.4? That would be page 6. You can see on line 16, if I read it word for word:

"Toronto Hydro has successfully negotiated with Metrolinx that all BTFA relocations will be a 100 percent funded by Metrolinx."

So Metrolinx will pay a hundred percent.

MS. DEFAZIO: Excellent. Thank you. If we go to 2B-STAFF-188, here, we asked about the decrease in contributions in the test period. And, if you scroll down to the response, the response says:

"The decrease in capital contributions is attributed to the increased expansion work over the forecast period to meet future load growth. In particular, forecast expansion work associated with relocations under the Building Transit Faster Act" --

So here we're talking about load growth and expansions, which are different. This paragraph just seems to confuse them. And they have different funding mechanisms. So I was just wondering if you could take another stab at explaining the decrease in contributions.

MR. NASSO: Absolutely. So, if I take you -- so, first and foremost, the relocations are a hundred percent paid by Metrolinx. If there's an opportunity because we see expected load growth in the forecast, we will -- can you go to section -- actually, page 7 of 21, you will see

4, expansions work in conjunction with relocations work.

So, if there's an opportunity because we see expected load growth in the forecast, we will jump on with those expansions; we will do that extra work. That's not covered by Metrolinx. So we'll do that expansion in conjunction with the relocation, and that's why you see a lower contribution. So that's where the statement says [audio dropout] of the forecast work is Metrolinx work.

MS. DEFAZIO: So 70 percent of the forecast work is a hundred percent contributed?

MR. NASSO: No. So, when we do an expansion, we already have, let's say, the ground dug up.

MS. DEFAZIO: Yes.

MR. NASSO: We're going to do the relocation. At the same point, we can increase our asset sizes if there's a need for it. So, actually, there's a lot of cost savings in doing it this way.

MS. DEFAZIO: So you're doing the incremental work at the same time?

MR. NASSO: Incremental is paid by Toronto Hydro, yes.

MS. DEFAZIO: Yes, so your -- so how does that decrease contributions?

MR. NASSO: Because Metrolinx is not paying for that. What you would have see in the first rate period is a number of projects where we didn't increase the assets. It would have been a like-for-like, and they paid a hundred percent. So now, in the next rate period, you will have more work there where we need to do expansions on.

MS. DEFAZIO: So, because you're doing more work overall but you're --

MR. NASSO: Or work that --

MS. DEFAZIO: Sorry, more work that's Toronto Hydro initiated versus developer initiated is why your relocations are going down?

MR. NASSO: That is why the net cost is going down.

MS. DEFAZIO: Okay, thank you. I would like to ask about THE worst-performing feeder program, so, if we go to, well, 2B-Staff-239, page 4, and also there are some parts in the DSP where they talk about, "The better visibility provided by the new outage management system has increased the number of worst-performing feeders."

We've seen worst-performing feeders numbers increase in the last year. Why would the outage management system, in having that system, increase the number of worst-performing feeders?

MR. SMART: So I think, to clarify, what we intend to say with this is that the upgrades that we've made to the outage management system and the system that we use to track and record outages have resulted in more feeders being, I guess, meeting the criteria for worst performing. And the reason for that is the new system that we moved to has better visibility, I guess, around really, really small-scale outages, so in terms of, you know, number of customers.

In the past, the system that we used was manual, so there would be an outage, and then a dispatcher or an operator or a crew member would, you know, take the requisite steps to make repairs and restore the customer, and then it would be incumbent on the operator in the control room to go to the manual system and record that outage. But there was no means to audit that activity relative to, you know, some sort of, like, SCADA data that came back through one of our sensors in the field.

With the new system, the outage report is created automatically by virtue of the actions that the operator is taking in the control room, so we aren't relying on an individual, who may or may not be dealing with, you know, other outages or other priorities at the moment, to remember to put that outage in.

So what in effect is happening, I guess, just to summarize, is there has been an increase in terms of the number of those kind of small-scale outages in terms of SAIDI and SAIFI impact, but they still count as interruptions for the purposes of the worst-performing feeder program, so you see more feeders on that list.

MS. DEFAZIO: Okay. So, under a scenario where you had -- let's talk about a FESI-7 feeder. You might have a feeder that supplies, I don't know, a couple of hundred customers, and, if you have individual overhead transformer outages that impact seven customers, seven of those small outages would put that feeder on the worst-performing list?

MR. SMART: Yes, that's correct.

MS. DEFAZIO: And, if you missed two of them in the past, it wouldn't have made the list?

MR. SMART: That's correct.

MS. DEFAZIO: And it has no impact on your overall SAIDI and SAIFI because the numbers are so small?

MR. SMART: It's immaterial, I guess.

MS. DEFAZIO: Yes.

MR. SMART: Yes.

MS. DEFAZIO: Okay. So your FESI-6 and your FESI-7 is not dependent on the size of the outage on a feeder or even that it's a main breaker outage, that it's any outage along the feeder?

MR. SMART: Yes. We track all or we count, I guess, all sustained interruptions along the feeder.

MS. DEFAZIO: And do you take scheduled outages out of that analysis?

MR. SMART: Subject to check, I believe we do, yes.

MS. DEFAZIO: Okay. Do you get a high number of complaints about customers having multiple interruptions?

MR. SMART: We do get complaints, like, in that regard from time to time, but I don't think I can, you know --

MS. DEFAZIO: Okay. In the example we just discussed, you may have multiple outages, sustained outages, on the same feeder, but they may impact different customers each time?

MR. SMART: That's correct.

MS. DEFAZIO: Okay. And where did the number of outages customers experience rank in the customer engagement? Do you recall?

MR. KEIZER: If you want specifics, I think that's panel 3.

MS. DEFAZIO: Okay, thank you. Before I go to my next topic, I think Daniel, you had a question.

EXAMINATION BY MR. ZANINI (CONT'D.):

MR. ZANINI: Sorry, I don't remember which question this is, but it's regarding the electrification of the fleet vehicles and the generation capacity at your depots in case of long power outages.

Now, It's my understanding that quite a lot of the field resources are outsourced by Toronto Hydro, so who would have the capacity to, if they electrify to power their resources and their vehicles in the case of long power outages, because I would assume that Toronto Hydro would need those resources to help troubleshoot or fix any of those long term power outages?

MR. HOMSMA: Sorry, you're speaking of the resources, like, contract resources, like, that would respond to our work as well?

MR. ZANINI: Yes.

MR. HOMSMA: Yes. At this time our contractors may or may not have plans. I can't speak to specifically their electric vehicle -- vehicle electrification plans. But they are nimble and we do have contractual language we could, you know, put on them to expedite if needed, and it's something we'll continue to monitor and work with them on.

MR. ZANINI: So, it's my understanding under your emergency response planning, or in your projections as to any capacity you would need for long term outages, you're including the external resources as part of that planning to make sure that you do have overall coverage considering the outsourcing involved?

MR. SMART: What I would say is to the extent we rely on external service providers to provide, you know, resources to support with restoration activities, the way those contracts are set up is the service provider has an obligation to provide us with, you know, the resource fully equipped with the vehicle, tools, et cetera, et cetera, so if a particular service provider electrified their fleet and, you know, had a business risk on their side, whereby there was a power outage they wouldn't have vehicles available, you know, the onus would be on them to make sure they have sufficient backup capacity. So, it's kind of, I guess, where the line in the sand is.

MR. ZANINI: Okay.

EXAMINATION BY MS. DEFAZIO (CONT'D.):

MS. DEFAZIO: This is my last question, and I believe the last question for this panel, so thank you.

In description of Toronto Hydro's acceptance of assets constructed by contractors or maintenance done by contractors, Toronto Hydro has mentioned third party auditors perform unannounced spot audits for quality and safety purposes. I'm just wondering who these third party auditors may be. And you don't need company names if it's a company, but a description of them or whatever.

MR. NASSO: I was going to give you company names.

MS. DEFAZIO: You can give me company names if you want.

MR. NASSO: Yes, we work with AtkinsRealis, WSP, and MBM. They are auditing firms.

MS. DEFAZIO: Excellent. Thank you. And who selects the projects they audit?

MR. NASSO: This would be the operational leader for that group. So, what I mean is the operations groups are broken up into east and west, and so they'll use any one of the auditors to audit their work.

MS. DEFAZIO: And what kind of sampling do they do? Is it a percentage, a dollar percentage, a project folder percentage?

MR. NASSO: The expectation is auditors go out to each site on a daily basis.

MS. DEFAZIO: Okay. That's it for today. Thank you very much.

MR. MURRAY: Thank you very much, panel 2. I think that concludes your evidence. We'll take our afternoon break. We'll come back at three o'clock with panel 3.

--- Recess taken at 2:48 p.m.

--- On resuming at 3:03 p.m.

MR. MURRAY: Welcome back to the technical conference of Toronto Hydro. We have panel 3 before us. Perhaps I can pass it over to you, Mr. Keizer, to introduce your panel?

MR. KEIZER: Sorry about that, just a reshuffling at the counsel desk. Yes, if I could ask the panel to introduce themselves by name and their position, starting with the panellist closest to us at the counsel table, please.

MR. CLARK: Dave Clark, director of total rewards and performance.

MR. ZENI: Federico Zeni, controller.

MS. STULBERG: Jennifer Stulberg, director talent management and culture.

MS. COBAN: Daliana Coban, director of regulatory applications and business support.

MS. DOLZHENKOVA: Ekaterina Dolzhenkova, senior manager of regulatory analytics.

TORONTO HYDRO-ELECTRIC SYSTEM LIMITED - PANEL 3

Dave Clark

Federico Zeni

Jennifer Stulberg

Daliana Coban

Ekaterina Dolzhenkova

MR. KEIZER: Thank you, panel. I don't have any preliminary matters in respect of this panel, so they are available for questions.

MR. MURRAY: Thank you, very much, Mr. Keizer. Before I pass it over to SEC, I will just -- I just wanted to let the panel know that often you are connected, two people to the same mic. So if one person hits the green button and then hits it off, you will turn off your colleague's microphone. So I just wanted to alert you to that, because it seems to be a bit of an issue. Even Staff, we have had that issue earlier today, where I have turned off my colleague's microphone.

With that, I will pass things over to the School Energy Coalition. I believe Ms. Scott is going to be asking questions first.

EXAMINATION BY MS. SCOTT:

MS. SCOTT: Yes. Hello, panel. My name is Jane Scott. I am a consultant with the School Energy Coalition.

If we can start with 4-SEC-92? And in this question, there was some confusion about headcounts and FTEs, and I just wanted to clarify. First of all, the term "headcount" and "resources", they are used interchangeably? Is that correct?

MS. STULBERG: The terms "headcount" and "FTEs" are used throughout the evidence, but are not interchangeable.

MS. SCOTT: No, sorry, I said headcount and resources; those two are interchangeable in Exhibit 4, often the term, "so many resources are required."

MS. STULBERG: I think it's fair to say there, they can be used interchangeable in that context.

MS. SCOTT: Okay. In the response to part A, table 1 provided from the FTE spike program, but that includes both those that -- for OM&A, and those that are allocated to capital. And so I am wondering, can we get that table, a similar table, but just for OM&A FTEs?

MS. STULBERG: Just to clarify: In the response B, we do have the number of resources that are allocated in terms of capital and operating. Is that not sufficient?

MS. SCOTT: Well, not, because it was not by the program.

MR. ZENI: I don't think we can produce a table at the program level, like that. FTEs in any given program can work at any time on capital programs or operating programs. So there is no fixed extension between OM&A, FTEs or capital FTEs at the program level.

MS. SCOTT: So, in table 3, the 31 FTE increase in OM&A is based on -- how do you determine that, then?

MR. ZENI: The split of that table was on a done on an aggregate basis, based on the capitalization rate at the company level. But it is not done at the program level.

MS. SCOTT: Based on the dollars?

MR. ZENI: Correct.

MS. SCOTT: Okay. Is there an easy way of -- how do you convert headcount to FTEs? Do you do it sort of the simple way, of number of hours divided by the total cost -- number of hours divided by the possible hours in the year? Do you have a different way of doing that?

MR. ZENI: The FTE calculation, what it does, it reflects the timing of when an employee joins the organization. So perhaps an example will be the best way to explain it. If you hire an employee at the beginning of July, looking now at the end of December, you will count that employee as one headcount. But you will count it as half an FTE, because that employee has stayed with the organization for only six months of the year.

So the math will be -- you take your headcount, divide it by 12 months, times the number of months any given employee is with the organization, within the organization.

MS. SCOTT: Right. So normally, headcount is less than FTEs. Is that...

MR. ZENI: Not necessarily, because --

MS. SCOTT: Or, no, sorry, the other way around, normally -- yeah. Not necessarily? Sorry.

MR. ZENI: No, because you have employees joining the organization and also you have employees leaving the organization. So if you have an employee, they are leaving the organization in July; at the end of the year, you have zero headcount. But you have half an FTE, because that employee was with the organization for half a year.

MS. SCOTT: Okay. Thank you. If we can go to 4-SEC-89? And this is where you provided updates -- you have provided by program, but it included the updates for 2023 and 2024 that were provided in the April 2 update. And in that April 2 update, table 11 provided the drivers. It's not shown in here; it is reflected here, but it's not shown.

My question is on a high level what were the changes in 2023 and 2024 that are reflected in the table 11, the update, and are also reflected in the individual program updates here?

MR. ZENI: Is it possible to bring the table on the screen?

MS. SCOTT: Do you have the update, the April 2 update?

MS. COBAN: I think what we are looking for is the application summary in exhibit 1B, tab 1. Within that, I can't remember the specific schedule that we filed on April 2, if I have the reference correct, Ms. Scott.

MS. SCOTT: Right. Yes, I have it as table 11 in the update, but you could be -- the one that shows the OM&A cost drivers? So 294. Yes, okay. So this one doesn't show what the actual changes are, but the -- so the 2023 actuals went from 301.5 to 294.2. At a high level, do you have the changes that were made?

MR. ZENI: I will have to take an undertaking for that.

MS. SCOTT: And then the same with 2024; it went from 325.5 to 320.5.

MR. ZENI: No, for 2024, the change has to do with the treatment of costs related to implementation of cloud solutions. That means we discussed as part of the previous panel, as well as with --

MS. SCOTT: Okay, is that --

MR. ZENI: Sorry?

MS. SCOTT: No, go ahead. Go ahead.

MR. ZENI: As well as changes related to the treatment of incremental locates costs that are also deferred as part of the GOCA DVA. So those two account for the change in 2024.

MS. SCOTT: So of the $5 million?

MR. ZENI: Yes, it's $1½ million related to locates, and $3½ million related to cloud solution implementations.

MS. SCOTT: Right, okay. That does explain 2024, yes. If you could just give, provide 2023, that would be --

MR. ZENI: And it's, sorry, also reflected on 2023. 2023 was also impacted by those changes. However, the magnitude is smaller, so about $500,000 related to cloud and $900,000 related to locates. However, there are other variances, so I'm happy to take that as an undertaking.

MS. SCOTT: Yes, I appreciate that. Thank you very much.

MR. MURRAY: That will be undertaking JT3.28.

UNDERTAKING JT3.28: FOR THE TABLE IN 4-SEC-89, TO SHOW AT A HIGH LEVEL CHANGES FOR 2023 AND 2024.

MS. SCOTT: If we could look at Exhibit 4-1-1, Figures 14 and 15, we had them up earlier today. It's actually at page 55 of 55. So, looking at the changes from 2020 to 2025, and I understand the adjustment related to COVID and the adjustment related to the last decision. So, for the inflationary increase, that appears to be the OEB's inflation factors for the 2021 to 2024. Am I correct in that? That's how you have calculated the 45.4?

MR. ZENI: That is correct.

MS. SCOTT: And the customer growth is based on what?

MR. ZENI: Is the annual customer growth.

MS. SCOTT: Right. How do you convert that to a dollar number?

MR. ZENI: So we have a percentage of year-over-year increases in customers, and it was added to the inflationary increase.

MS. SCOTT: Right, but that is based on the distribution revenue per increase customer or how --

MR. ZENI: No. So we estimated a percentage increase in the customer count, and then we -- the same approach with inflation. We took the approved OM&A in 2020, and we escalated by inflation, plus that incremental consideration around customer growth, and that landed on what the inflationary increase on funding will be and the variances that you see on the screen.

MS. SCOTT: Right. I guess I still don't understand because this customer growth reflects your increase in OM&A costs per customer, I presume. Does it?

MR. ZENI: Again, it's just a simple escalation of the customer account. The intent there is to reflect that increases in customers have an implication to our OM&A, and that amount that you see on the screen is reflecting that impact.

MS. SCOTT: Right, but you must have had some way of calculating. I guess the 7.4 -- maybe you want to take that away and, if you can, provide some information on how that was calculated. Because you've used the same in Figure 15. You've also said there's a -- in that case, it was a 4.9.

MR. ZENI: Yes, the methodology would be consistent, so, yes, I'm happy to take that undertaking.

MR. MURRAY: Ms. Scott, perhaps for the record -- we had a request from the court reporter to be a bit clearer, and there was a bit of back and forth there, so, if you could, just summarize the undertaking for the record.

MS. SCOTT: Yes. To explain how the dollar figures related to customer growth were calculated based on the growth in customers for Figures 14 and 15, B-1-1.

MR. MURRAY: That will be undertaking JT3.29.

UNDERTAKING JT3.29: TO EXPLAIN HOW THE DOLLAR FIGURES RELATED TO CUSTOMER GROWTH WERE CALCULATED BASED ON THE GROWTH IN CUSTOMERS FOR FIGURES 14 AND 15, B-1-1.

MS. SCOTT: Thank you. So, if we look at 1B-AMPCO-07, that reflects efficiency achievements in Table 1, and my question is: How are those -- well, the first question is I am assuming they're both OM&A and capital savings or reductions or variances?

MR. CLARK: Subject to review, these would be OM&A savings.

MS. SCOTT: Okay. So how are they, those numbers, reflected in that Figure 14? I can see how, you know, costs went up because of inflation and because of customer growth, and I would have expected to see some downward pressure based on these numbers, before you get to your 2025 baseline.

MR. ZENI: The majority of the cost savings that are reflected on that table are cost avoidance. So, basically, those activities, those initiatives, mitigate further increases, so they're not reflected in that cost chart that you see, that you refer in your comments.

MS. SCOTT: But the cost reductions?

MR. ZENI: They are implicitly reflected in the chart because, as you can see, the cost reductions remain significantly consistent across the years, and our starting point is 2020. So, because 2020 already includes a cost reduction, the extrapolation that we do with inflation and customer growth also carries over that consideration for cost reduction.

MS. SCOTT: So you're saying they're not cumulative, even though it shows as cumulative?

MR. ZENI: They are embedded already in the numbers because the starting point of 288.1 already reflects the cost reduction in year one, and that cost reduction in year one for the most part is consistent in the other years. And the exercise that we're doing here is an extrapolation between 2020 and 2025, so, mathematically, if you have it in year one, that consideration also carries until 2025.

MS. SCOTT: Right, but you would have had -- you had additional efficiencies in 2021, 2022, 2023, and 2024, I would assume.

MR. ZENI: Yes, but, because we are doing an inflation increase from 2020, embedding that calculation you have cost reductions all the way to 2025.

MS. SCOTT: Sorry, embedded in the inflation increase?

MR. ZENI: No, embedded in the 288, that's the starting point of the calculation in the, in Table 14 -- sorry, Table 13 -- sorry, no Table 14.

MS. SCOTT: Fourteen, Figure 14, yes.

MR. ZENI: Yes, so the 288 already reflects the cost reduction in year one.

MS. SCOTT: Right.

MR. ZENI: And, for every year after, we do an inflationary increase, which means that, every year after, you have a similar savings built into the calculation, so the 288 has $1.16 million cost reduction already.

MS. SCOTT: Right.

MR. ZENI: And the year after would have an inflationary increase plus the customer increase consideration; same for the year after, the year after, all the way to 2025. So, implicitly, those savings are already embedded in those calculations.

MS. SCOTT: Okay. I will leave it there.

In 4-SEC-110, and you don't have to bring it up, because it talks about the -- there's an increase in a number of OM&A areas because capital is increasing. And so, in the update, the April 2nd update, capital was reduced, but the OM&A was not reduced for '25 to '29. Is there any reason why that was not affected by that reduction?

MR. KEIZER: It still might be helpful to bring that interrogatory up, just so people have context.

MS. SCOTT: Okay.

MR. KEIZER: Let me just make sure we have the right reference.

MS. SCOTT: Yes, if you go up to the preamble, it would be talking about the higher -- this was talking about the higher procurement activity, and because of the increase in capital, It was one example, just there's a number of them, too.

Where it talks about, you know, the increase in legal as well, and regulatory affairs. This one is the reason for the increase in public legal and regulatory affairs because of the increase in procurement activity, which was related to the increase in capital.

MS. COBAN: So, the evidence update that we filed prior to the interrogatory process was very targeted to two specific areas, and so I think the reason you didn't see that relationship carry forward is because of the very limited nature of where the capital was reduced. Whereas what you're looking at here in these IRs and elsewhere is kind of a more trending based view of how increases in our capital program and work volumes associated with that capital program holistically are driving increases in our workforce, our head count and various operational processes that support the execution of that capital.

MS. SCOTT: Right. So, if capital is reduced, then we should at some point start to see reductions in the requested OM&A. I mean, not just this reduction, but if the Board chooses to reduce capital, for whatever reason, it could have a flow through effect to OM&A?

MS. COBAN: It could, but it's very difficult to speculate on that, on a kind of generic hypothetical basis. I have to understand the specifics.

MS. SCOTT: Right. Okay. I will turn it over to my colleague, Mr. Rubenstein. Thank you very much, panel.

EXAMINATION BY MR. RUBENSTEIN:

MR. RUBENSTEIN: Good morning, or good afternoon, good afternoon, panel. I want to start off with follow-up questions that were punted from panel 2 to panel 1.

MS. COBAN: Mr. Rubenstein, If I could just ask you to speak up. We're having a hard time hearing you here.

MR. RUBENSTEIN: I want to follow-up with questions from panel. Can you hear me? Hello? I want to follow-up with some questions from panel 2 that were punted to this panel. And maybe the first I can ask to pull up 2B-Staff-263. We can go down to part B of the response.

Toronto Hydro discusses that if the Board -- well, if parties oppose and the Board agrees with parties with respect to the custom funding request for OM&A, Toronto Hydro would seek alternative relief for a generic account to capture variances for cloud related cost implementation subscription cost to ensure that a utility is able to fund these prudent and necessary expenditures and reduce the financial barriers to adopting cloud-based solutions. Do I have that right, that's what you would do?

MS. COBAN: That's correct.

MR. RUBENSTEIN: And so, I take it it's, essentially, you know, in the alternative relief?

MS. COBAN: That's right.

MR. RUBENSTEIN: I just want to understand how this would differ from the -- or is the account you would be seeking any different than the current generic account that the OEB --

MR. ZENI: Yes, in the alternative we will be asking for a deferred variance account to track variances between what we are actually incurring versus what we have embedded in rates.

MR. RUBENSTEIN: But would the terms of the account, and what it would capture be different than the OEB's generic account? Is there something different what you would track versus the existing OEB generic account is? If you would like to take it away by way of undertaking, that's fine.

MR. ZENI: In the existing account we are tracking the costs incurred from the implementation of cloud solutions, on the alternative they are -- we are discussing -- we will be tracking variances.

MR. RUBENSTEIN: Is that the only difference? It's capturing against a base -- it's tracking variances, but what would be included is the same as what could be included, the type of cloud computing costs would be the same as what would be allowed under the OEB generic account and, again, I'm okay, no problem if you want to take this by way of undertaking.

MR. ZENI: No, it will be the same.

MR. RUBENSTEIN: Okay. Thank you very much. Can I ask you now to turn to 2B-Staff-273. If we can go down to part B.

And so, as I understand from my discussions with panel 2 about this, included in the IT software segment is 11.5 million dollars for regulatory compliance initiatives that may occur, and it's based on an estimate of six previous ones, the numbers came to. And so, my question is: What happens if the OEB approves a generic variance account for new regulatory requirements, as they often do? How would rate payers ensure there's no double counting of what's included in rates and then any amounts that you may or may not include in that generic deferral account?

MR. ZENI: Yes, the approach in this case wouldn't be different from what we do today related to the capital related variance accounts or the EIP variance account. We will track these particular initiatives, we will track the cost associated to these projects, as well as the actual revenue requirement associated with these initiatives. And then compare against the revenue requirement for the same initiatives embedded in rate, and that variance will be accumulated in the deferred variance account.

MR. RUBENSTEIN: But the difference with that account that you're talking about that you've done previously is it captures all different types of relocations in that example.

Here the Board may have a specific account for a specific initiative, and so how does it work? Is it if the dollars get past 11.5 divided by 6, then you would start recording amounts or is it on the seventh initiative, that's when you can start recording amounts? Just help me understand how this works. And, again, if you would like to take this by way of undertaking and thinking about it I have, again, I have no problem with that.

MR. ZENI: There wouldn't be any significant difference to how we track the external initiative relocations today. Like, We track these projects, the systems have functionality built to track projects individually, and monitor variances against the assumptions built in the plan.

MR. RUBENSTEIN: And so, when you come and, say, let's imagine there's six different variance accounts that the Board does on a generic basis. When you come to clear it, you will compare the total of those six against the 11.5 million?

MR. ZENI: In the hypothetical, we can compare the total, we can compare them one by one, we can segregate each of the projects and do the comparison at a project level. So, I don't know, again, we're talking about a hypothetical, but it is possible to do in an aggregate or a discrete manner.

MR. RUBENSTEIN: But the intent, though, is that for regulatory initiatives, you would not be able to recover amounts in how many deferral accounts ultimately may be created by the board, until you reach, you know, after 11.5 million?

MR. ZENI: Sorry, can you clarify the question?

MR. RUBENSTEIN: So I just want to understand. So principally, you were talking about, "we can do it this way, we can do it that way." I am just wondering, at the principal level, you would not start -- I shouldn't say you can record, but at the time of disposition of those accounts, you would only dispose of amounts above the revenue requirement equivalent of the $11.5 million.

MR. ZENI: Well, no, that -- again, depending on how the account and the details of the account. But that account can be symmetrical, so we will be disposing revenues above or below. So it will protect ratepayers and as well as the utility for variances against the assumption's built, in rates.

MR. RUBENSTEIN: All right. I am not sure I fully understand, but I will consider it.

Can I ask, I also want to follow up on some questions I had -- on a question I had on the first panel. I was directed to this panel. And that's with respect to the 7 percent residential price limit. And so as I understood the evidence, the 7 percent residential price limit that is talked about in the application is an output of the overall budget limit in the draft plan of about $4 billion in Capex and $1.9 billion in OM&A?

Do I have that correct? The allocated amount to residential customers would have resulted in about a 7 percent increase?

MS. COBAN: That's right. It's an expression of the price implications of those budget limits.

MR. RUBENSTEIN: So I want to understand how the company thinks about it. Did the company think about it when it was developing its plan as a price limit when it was developing it? Or it's really the $4 billion capex and $1.9 billion OM&A?

MS. COBAN: We do set this out in the evidence in exhibit 2B, E2, and I will be able to provide you a reference, if you would like one.

But essentially, in arriving at the $4 billion and the $1.956 billion, I think it was, operational limit, as we have set out in that evidence, we were guided at the outset with the objective of finding the appropriate balance between price and outcomes that customers care about, like reliability and investments in technology that will deliver long-term value.

So those budget limits that you see there and the way that they were developed through our planning process reflected that paramount objective that we had set out for the planning process, to strike that balance and to arrive at a plan that was both considering the price implications as well as the outcome implications of the various programs that we were developing and the options within it.

So we look at them as a package. But I think the key here is to understand how we arrived at the $4 billion and the corresponding operational number, and what we were guided by in terms of the considerations that we went through in that iterative process to arrive at those budget limits.

MR. RUBENSTEIN: Is it a budget -- let me rephrase. Did you internally think of it as a budget limit or a price limit?

MS. COBAN: We thought of it as both.

MR. RUBENSTEIN: Can I ask you to turn to 1B-CCC-14? Moving down to A -- sorry, if you can scroll down? You provide a table or a figure there. Do you see that, figure 1. Do you see that on the screen?

MS. STULBERG: Yes.

MR. RUBENSTEIN: Can you provide the underlying data and calculations for that, I assume the spreadsheet that sits underneath this that you created that table. And specifically, I am looking at the -- I am trying to better understand the calculations for the inflation-adjusted capex.

MS. STULBERG: Yes, we can do that.

MR. MURRAY: That will be Undertaking JT3.30.

UNDERTAKING JT3.30: TO PROVIDE THE UNDERLYING DATA AND CALCULATIONS FOR FIGURE 1 IN 1B-CCC-14.

MR. RUBENSTEIN: Can we go to 1B-SEC-1, and if we go to part A? So table 1 shows the 2024 revised closing rate base that is lower than the forecast in the application. That would then reduce the 2025 opening rate base? Do I have that right? These numbers are lower than those in the evidence?

MR. ZENI: Yeah, that is correct.

MR. RUBENSTEIN: Can you please provide revised rate base tables for 2025 to 2029, based on the updated 2023/2024 numbers?

MR. ZENI: I believe the data is already in evidence, so we will provide a reference.

MR. RUBENSTEIN: All right. And if it's not, can you provide it?

MR. ZENI: Yes.

MR. MURRAY: That will be undertaking JT3.31.

UNDERTAKING JT3.31: PROVIDE REVISED RATE BASE TABLES FOR 2025 TO 2029, BASED ON THE UPDATED 2023/2024 NUMBERS OR TO PROVIDE THE REFERENCE IN THE EVIDENCE.

MR. RUBENSTEIN: Can I ask if you can go to 1B-SEC-3. In this interrogatory, we ask for Toronto Hydro's corporate scorecards for each year, between 2020 to 2024, and provide year-end results for the measures. Do you see that?

MR. CLARK: Yes.

MR. RUBENSTEIN: Now, as I understand, each KPI has weights, correct? - and there's a threshold, a target and a stretch target for each metric. Do I have that right? It's not shown here, but that's my understanding of how your corporate scorecard works.

MR. CLARK: That's correct.

MR. RUBENSTEIN: Can you please provide then, for each of those years, the full corporate scorecard that shows the correct weightings, the thresholds, the targets, the stretch targets for each?

MR. STERNBERG: Mr. Rubenstein, I am not sure if that has been provided in the past, and pausing over the relevance of it. But, for right now, perhaps we can take that back and consider it, and either provide the requested information or, if we are not in a position to or have an objection to it, we will advise.

MR. RUBENSTEIN: Okay. Well, I just note that the 2024 one is on the record in a different interrogatory, so you have provided at least that one; that is how I am aware of what they look like. And that's in CCC-1, appendix B, page 62.

And I believe, just to note, that it is clearly relevant. And I think understanding performance and how the company sets its objectives is relevant.

MR. STERNBERG: Okay, thanks. We will consider it and advise, as I indicated.

MR. MURRAY: So will we mark that, just so we don't lose track of it, as an undertaking, for now. That will be JT3.32.

UNDERTAKING JT3.32: TO PROVIDE FOR 2020-2024 REFERENCED IN 1B-SEC-3, THE FULL CORPORATE SCORECARD THAT SHOWS THE CORRECT WEIGHTINGS, THE THRESHOLDS, THE TARGETS, THE STRETCH TARGETS FOR EACH.

MR. RUBENSTEIN: Now I have one question about one KPI, and that is the in-service assets. I cannot reconcile the in-service, either targets and results, in any of the ones that you provided with either the OEB approved in-service numbers for those years, or the actuals. So what's the difference?

MR. ZENI: Each of these KPIs have a specific definition. When it gets to in-service additions, there are some things that, as an organization, are tracked, and some things that are excluding from the KPI, from the KPI definition.

MR. RUBENSTEIN: Can you provide by way of undertaking what's included in in-service additions for the scorecard, as compared to the OEB-approved numbers and your actual numbers that you provide, obviously, in many -- in the other tables in the evidence?

MR. ZENI: Yes, we can provide that definition. Yes.

MR. MURRAY: That will be undertaking JT3.33.

UNDERTAKING JT3.33: TO PROVIDE WHAT'S INCLUDED IN IN-SERVICE ADDITIONS FOR THE SCORECARD, AS COMPARED TO THE OEB-APPROVED NUMBERS AND YOUR ACTUAL NUMBERS PROVIDED IN THE OTHER TABLES IN THE EVIDENCE.

MR. RUBENSTEIN: Can I ask you to go to 1B-SEC-5. In this interrogatory, we asked you about various benchmarking studies. And if we go to the next page, you will see under -- in the table that begins on line 5, there's a grid modernization benchmarking results study, which is entirely confidential. And I am not asking about the contents of it. But as I gave Ms. Coban the preview, I am trying to understand the date of the study.

MS. COBAN: So as you see there, right on the screen, the study was conducted in 2021. To be more specific from my understanding, and I will take this back and confirm, it was conducted in the first part of 2021.

MR. RUBENSTEIN: I believe that's a different document. It's the second one that is what was filed.

MS. COBAN: They are related, so you're looking at kind of two different products that relate to the same underlying study that was done.

MR. RUBENSTEIN: Now, as I understand based on your March 21st letter, what I thought was the first study, the Concentric grid modernization benchmarking study, [audio dropout] refused to provide consent for you to file it, even on a confidential basis?

MS. COBAN: That's correct.

MR. RUBENSTEIN: So it's related to the second one? Maybe you can just...

MS. COBAN: It is the same study. It's a different presentation of outputs of the study. One is a summary, if you will call it, in a different kind of PDF format. That's the one that Accenture did not consent to. The other is a spreadsheet in a tabular format, comparing, you know, various inputs into the study. That's the one we filed confidentially.

MR. RUBENSTEIN: Okay, so the one you didn't file is the analysis or the rolled-up version?

MS. COBAN: We did not get consent to file that.

MR. RUBENSTEIN: And what is the basis of why you need to seek their consent?

MS. COBAN: It is my understanding that we had very restrictive confidentiality obligations that we had to adhere to as part of our participation in the study.

MR. RUBENSTEIN: Okay. Well, I'm going to ask you to file it anyways. As you know, the Board has on many occasions, including in Toronto Hydro proceedings, noted that an agreement between the utility and a third party is not a reason for non-disclosure of the document.

MR. KEIZER: Sorry, are you asking us now to file? Is that what you're asking?

MR. RUBENSTEIN: Yes.

MR. KEIZER: And I think that our letter of March still stands at this point.

MR. RUBENSTEIN: So that's a refusal?

MR. KEIZER: Yes.

MR. RUBENSTEIN: Okay. Thank you. Can I ask you to turn to 1B-SEC-66? In this interrogatory, we asked you to provide the budget guidance documents that were issued regarding the budgets that underlie this application, and you point us to your response in 1A-CCC-3, in which you declined to provide that information on the basis that, in your view, it's not probative.

MR. KEIZER: That would seem like what CCC-3 says.

MR. RUBENSTEIN: Yes. I'm having trouble understanding that. Obviously, there are instructions that were provided to the business units to help guide how you made determining your budgets. It's your view that that's not relevant? Is there any prejudice in providing that information? It's regularly provided when asked in interrogatories. I'm surprised by the response here.

MR. KEIZER: I think what the information is, is that -- I think the refusal stands on the basis of what's stated here, in CCC-3. That's the basis on which it's believed not to be probative. And, if you're seeking those documents by way of your examination today, the refusal still stands.

MR. RUBENSTEIN: Thank you very much. Can we go to 1B-SEC-15C. And we had asked you here -- and just to be clear, just to back up for a second, to provide context, this is with respect to the DRVA expenditure sub account proposal.

We had asked you if you were going to include the approved X factor into the calculation of the sub account balance, that being either the efficiency or the PIM component, and you say, as I read it, you don't. Do I have that right? It's a bit confusing.

MS. COBAN: I'm having a hard time hearing. Could you repeat the question?

MR. RUBENSTEIN: Well, let me just back -- ask the question because I found the answer somewhat confusing.

Do you plan to included the X factor, either the efficiency component or the PIM component, in the DRVA expenditure sub account, any balance or any calculation of that amount?

MS. COBAN: As we set out here, in our response to part C, we propose to track the base amount before the application of the X factor, and we feel that this approach protects the integrity of the X factor in that it doesn't give us an opportunity to earn it back through the DRVA, so it essentially sets a threshold, which is the value of the X factor, that we must exceed in order to get any incremental recovery in the DRVA.

MR. RUBENSTEIN: So let me give you an example of a hypothetical situation, and let's just focus on the PIM component, the 0.6. That's based on -- if you have a base amount in the application, and that is applied, the 0.6 is applied, to that. Correct?

It's in the revenue requirement calculation, so it is essentially reflected against the base amounts in the application. Correct?

For the expenditures that are tracked, the expenditure sub account will track against. Correct?

MS. COBAN: The basis for the amount that we're tracking the variances against is the revenue requirement associated with conducting the work, not the revenue that is funded through the custom rate formula. We're looking at the actual cost associated with that work, not what's been funded through rates, when we apply the X factor.

MR. RUBENSTEIN: No, I understand that. But this is what I'm trying to understand, is why you wouldn't do -- why wouldn't you do that?

So let me give you an example, a hypothetical example, a very simple example. Imagine that the amounts of the DRVA expenditure sub account tracks is a hundred million dollars per year. It's a hypothetical amount. Right? When you're creating your rate framework, you're reducing that amount to be funded by the [audio dropout] because of the PIM component of the X factor. Right?

Now, say at the end of the day, you spend $150 million, right, because of, you know, growth or for whatever reason. Right? My understanding is that the account will capture the revenue requirement representative of that $50 million variance. Right?

MS. COBAN: Yes, but, if we were to track against the -- I'm sorry. I didn't mean to interject.

MR. RUBENSTEIN: Yes. So let me just understand. If that $150 million was included in the base amount, you knew today that you were going to have that, you would have reduced some component of that additional $50 million; the PIM would have been reduced by the PIM in how much you're recording. Do you understand? Does that make sense?

MS. COBAN: Yes, something less than that cost would be funded as a result of the PIM.

MR. RUBENSTEIN: And so why wouldn't you then, the balance in the account, also reflect the PIM?

For example, if you don't meet your targets, it reduces that amount.

MS. COBAN: If we were to do it in that way -- and perhaps I can offer you an undertaking where we can just show you the example so we're clear on this.

If we were to do it in that way, where we were tracking against -- let's say the effect of the PIM was to fund only $90 million of that $100 million, and then, in actuals, we spend 150. In the approach that you've recommended or suggested, we're actually recovering $60 million because we're recovering the difference between the 90 that's funded and the 150 in actuals, so we're recovering the impact of the PIM through the DRVA in that example.

That's why we don't propose to do it this way. We propose to track against the actual revenue requirement associated with doing the work.

MR. RUBENSTEIN: All right. Thank you very much. Can

I ask you -- just give me a second, if you don't mind. Go to 1B-SEC-20.

MR. MURRAY: Mr. Rubenstein, I'm wondering -- I'm looking at the time -- if for our second afternoon break, would now be a good time for a 10-minute break?

MR. RUBENSTEIN: Sure.

MR. MURRAY: Okay. Why don't we come back at 4:05.

--- Recess taken at 3:55 p.m.

--- On resuming at 4:07 p.m.

MR. MURRAY: We're back at the technical conference, Mr. Rubenstein, please continue with your questions.

MR. STERNBERG: I understand there's one brief clarification to an earlier answer that one of the panel members would like to give, we thought it would be -- makes sense to deal with that now before carry on with the next questions.

MR. MURRAY: Agreed.

MR. CLARK: So, I will just refer to 1B-AMPCO-07. The question in that interrogatory was whether or not it was OM&A or capex. And we said subject to review. And it is actually over 95 percent OM&A, but there is a small portion of cap ex.

MR. RUBENSTEIN: I was going to bring you to an interrogatory, but maybe before that, I just have one question, since the IRs were filed the OEB has initiated a generic hearing on cost of capital, as you're aware of. I was just wondering -- want to understand if the outcome of that active proceeding has any impact on this application, or would it have any impact on this application?

MS. COBAN: The cost of capital proposal, the parameters that we have in the application here, stand on their own merits in terms of the evidence we have in Exhibit 5. It's difficult to speculate on what may happen in the proceeding, and what decisions the Board may provide or guidance may provide, but at least based on what we know and understand today, we're bringing forward the application under the cost of capital parameters that’s set out in the evidence.

MR. RUBENSTEIN: And so, just to clarify. So, for example, if the Board ultimate determination is that the capital structure for the electricity distributors changed due to the proposal, would that impact this application, and the relief you're seeking??

MR. KEIZER: Mr. Rubenstein, wouldn't that have to be set out at the time that the decision was made by the Board? I don't think it's fair to speculate as to what the Board may say the parameters of it and what the start or end date in relation to it. So, I think that's a difficult question for the witness to address.

MR. RUBENSTEIN: Sorry, is your application notwithstanding whatever the default, any default changes that may occur. You're sticking by, say, the capital structure that's being sought in this application?

MR. KEIZER: No, I think the witness has indicated that based on what she knows, that the application is based upon what is as filed, and that she can't necessarily predict or what the parameters of the Board's decision would be in respect of the cost of capital, and because otherwise it would be speculation.

MR. RUBENSTEIN: Can I ask you to turn to 1B-SEC-20. I have a couple questions about the performance incentive measures. So, we had asked you in part A to provide details of all performance incentive measures that Toronto Hydro considered, but ultimately rejected. And, ultimately, you didn't provide those measures in your response. As I read, as I interpret the response, in your view there's no probative value in understanding what other measures were considered. Is that how I should read that response?

MR. KEIZER: Yes, I think the refusal is on the record. I think the issue, if you're trying to understand the position of Toronto Hydro, I think it's indicated there with respect to the fact that the Board is assessing in this application the scorecard that has been proposed, and the basis on which to go forward. Not evaluating or re-evaluating other things that were either thought, or contemplated, or could have been thought or contemplated. It's the scorecard as is proposed, it's relevant and before the Board.

MR. RUBENSTEIN: And so, in your view, this is a new proposal? In your view, understanding which other metrics may have been considered is not relevant?

MR. KEIZER: That's right. It's not relevant.

MR. RUBENSTEIN: Can I ask you to turn -- and so I take it, then, the rejection -- the refusal stands?

MR. KEIZER: Yes, it does.

MR. RUBENSTEIN: Can I ask you to turn to 1B-CCC-18? CCC-18. In the response, you say in developing its custom scorecard measures, Toronto Hydro drew upon Hawaii, Washington, Massachusetts, and New York and U.K., the resulting scan groups key performance indicators, KPIs, identified in these jurisdiction into 62 categories which Toronto Hydro organized into four categories outlined in the OEB's renewed regulatory framework of customer focused operational effectiveness, public policy responses, and financial performance. Do you see that?

MS. COBAN: Yes.

MR. RUBENSTEIN: Can you provide that scan of the KPIs in other jurisdictions that were grouped into those categories?

MS. COBAN: Yes.

MR. MURRAY: That will be undertaking JT3.34.

UNDERTAKING JT3.34: TO PROVIDE THE SCAN OF THE KEY PERFORMANCE INDICATORS IN OTHER JURISDICTIONS.

MR. RUBENSTEIN: Can I ask you turn to 1B-SEC-19. In part A we asked with respect to the Scott Madden jurisdiction review, for each of the jurisdiction reviewed, a summary of all components of the respective rate and regulatory frameworks.

And in the response Scott Madden provides a summary, but only of the ARM, the PIM, the cost recovery, and I understand when he uses the term cost recovery it's talking about cost recovery about alternative mechanisms for clean initiative, and innovation funding, but what is the missing it the general rate framework, which is really what the question was asking. Can you provide that information or, more appropriately, ask Scott Madden to provide that information?

MR. KEIZER: So, just to be clear, you're asking for the general framework that these aspects fit into, is that what you're asking?

MR. RUBENSTEIN: Yes.

MR. KEIZER: So, for example, just so we can be clear, what do you mean by the general rate frameworks?

MR. RUBENSTEIN: Cost of service, some sort of details if there's an incentive regulatory regime, because as you can imagine, these are mechanisms, obviously, fit within a broader picture, much like Toronto Hydro's mechanisms that it's seeking here that fits within a broader context of its proposals and that are not discussed in any of the responses -- or any of the framework overview. That was the information we were really seeking there.

MS. COBAN: Yes, I think we can take that back and look at the general rate framework in terms of whether it's performance based regulation or some other type of general framework. I think the specifics might be more challenging, but the kind of general umbrella of what type of regulation it is, that could be doable.

MR. KEIZER: Yes, we'll ask Scott Madden to address that.

MR. RUBENSTEIN: That's okay. But you'll give the undertaking you give. But I would be clear, you know, just saying incentive rate comes in many shapes and sizes and understanding the details, I think, is important to understanding -- for the Board also to understand the context of these approvals for those other jurisdictions to be clear on why they were created.

MR. KEIZER: Sorry, you've lost me, so what do you want? You want case summaries? Is that what you're asking for?

MR. RUBENSTEIN: I'm just -- a general understanding of the rate framework. But this is to Ms. Coban's comment while we could tell you if it's incentive regulation -- what does that mean? Incentive regulation means many different things in many different jurisdictions. So, a general idea of what their rate framework looks like.

MR. KEIZER: Well, we'll do it on a best efforts basis, we'll pose the question and see what Scott Madden comes back with.

MR. MURRAY: That will be undertaking JT3.35.

UNDERTAKING JT3.35: REFERRING TO 1B-SEC-19A, TO INQUIRE WITH SCOTT MADDEN AND PROVIDE ADDITIONAL INFORMATION ABOUT THE COMPONENTS OF THE RESPECTIVE RATE AND REGULATORY FRAMEWORKS IN THEIR JURISDICTION REVIEW; TO CLARIFY THEIR DEFINITION OF IRM.

MR. RUBENSTEIN: Can I ask you to go to 1B-CCC-1, Appendix A.

MS. COBAN: I think that's 1A-CCC-1.

MR. RUBENSTEIN: That's. Yes, that's the document I'm looking at. If you can go down, I think it was Appendix A, I think you have Appendix B open. If we can go down to slide 10.

Beginning in slide 10, and then through the next four slides, you have a number of tables that are similar here that shows a number of outcomes and then depending on the three, how those outcomes perform. Do you see that? They're colour coded.

MS. COBAN: Yes.

MR. RUBENSTEIN: And I take it when we're talking about the 2025 to 2029 business plan, that's this application, correct?

MS. COBAN: No. That would be the draft plan, at that time.

MR. RUBENSTEIN: What is "status quo option" here? What does that represent?

MS. COBAN: Subject to check, I just want to take this back and confirm, but I understand that what you see here are the options that were developed through the capital planning process, where we moved from the initial plan to the draft plan, and the various options that were considered, which are discussed in exhibit 2B, section E2.

MR. RUBENSTEIN: Now is there some document or analysis that sits below this presentation that, in greater detail, provides how you are deriving each of the outcomes for the next four pages? This reads like a summary, obviously. Are there some documents that are underneath this?

MS. COBAN: I am not aware of any.

MR. RUBENSTEIN: Then how were these four pages developed?

MS. COBAN: It's my understanding that what you see here is a summary that was prepared by the subject matter experts, some of which appeared on panels 1 and 2, which were involved in the capital planning process. And it reflects the considerations of the other options that you see here, along with the draft plan, and the many discussions and iterations that unfolded in 2022 as we considered these options and arrived at the draft plan.

MR. RUBENSTEIN: Thank you, very much. Can I ask you to turn to 1-PP-19B? That's 1 Pollution Probe 19B. And in the table, as I understand it, it shows various innovation funds that Scott Madden talked about, the objectives, and characteristics and cost-recovery mechanisms. Do you see that?

MS. COBAN: Yes.

MR. RUBENSTEIN: I am wondering if you can ask Scott Madden to expand the table to provide -- to tell us in each jurisdiction who determines what projects or initiative gets funding, and if there's specific approval criteria and, if there are, what are they?

MR. KEIZER: Yeah, we can ask Scott Madden that. When you say "who", you mean who the deciding authority is?

MR. RUBENSTEIN: In my understanding in some jurisdictions, it's not the utility who actually administers or determines projects; it may be another entity. I don't mean who, within the utility; that's not what I meant.

MR. KEIZER: Who within the regulatory process is governed by these? That's what you're asking?

MR. RUBENSTEIN: Sorry, I didn't catch that.

MR. KEIZER: It is within the regulatory process governed by these. That is what you are asking about, when you say "who"?

MR. RUBENSTEIN: Yeah.

MR. MURRAY: That will be undertaking JT3.36.

UNDERTAKING JT3.36: REFERRING TO 1-PP-19B, THE TABLE SHOWING INNOVATION FUNDS, TO IN EACH JURISDICTION WHO WITHIN THE REGULATORY PROCESS DETERMINES WHAT PROJECTS OR INITIATIVE GETS FUNDING, AND IF THERE'S SPECIFIC APPROVAL CRITERIA AND, IF THERE ARE, WHAT ARE THEY.

MR. RUBENSTEIN: Can I ask you to turn to 4-SEC-90? So in this interrogatory, we asked you to provide a revised version of appendix 2C that shows Toronto Hydro's internal budget amounts for each year between 2020 and 2024. And you declined to provide it on the basis that, in your view, it's not relevant and provides no probative value.

Do I understand Toronto Hydro to be saying in its view it is not relevant for parties and the Board to understand how, in the OM&A area, Toronto Hydro's actual cost performance actually performs against its budget in a given year? Any prejudice in providing this information?

MR. KEIZER: It's not the basis of the Board's assessment and review.

MR. RUBENSTEIN: Understanding how the company performs against its budget?

MR. KEIZER: Understanding how the company performs relative to the approved envelope and the basis upon which its proposed envelope is created is what is relevant before the Board. That's why we don't see the internal budget's relevance.

So, if you are asking for them to be produced, the refusal still stands.

MR. RUBENSTEIN: All right. I will just note that this is different. This is especially important in this context, where we don't -- we have not had multiyear OM&A-approved budgets. This is the first time that the company is seeking one. We say it is especially important to understand Toronto Hydro's historical performance against the budget for OM&A.

The refusal still stands?

MR. KEIZER: It doesn't change the position of Toronto Hydro. It is still the ability to actually perform relative to an approved envelope. So that's relevant to the Board.

MR. RUBENSTEIN: Can I ask you to go to 4-SEC-116? So maybe before we talk about it, just some background: I understand you were asked in 4-SEC-112 and 4-AMPCO-84A to provide a version of 2K, broken down into nonmanagement, PWU Society and non-union, and you have refused.

But what you did provide was you broke down the nonmanagement into union and non-union. Do I have that right? And so now the categories are management, union and non-union?

MR. CLARK: Sorry, can you refer specifically to what component of the AMPCO 84 response?

MR. RUBENSTEIN: Maybe we can pull it up. We had asked you in interrogatory to break it down by some amount; you pointed us here.

They had asked you then to break down your 2K into management, executive, union and non-union, separately. And you did that, correct? Okay.

Can we now go to 4-SEC-116? Please go down to -- flip -- go down to, in parts A and B of this response, there's a couple of tables that Mercer provided that show the number of employees in each of the categories in their study, against the total employees benchmarked. Do you see that?

MR. CLARK: Yes.

MR. RUBENSTEIN: I am wondering if you could provide a revised version of those tables that show the total number of employees in each of the four categories from the AMPCO-84A: management, executive, union and non-union, and the total amounts that are benchmarked.

And then the total amount of compensation that was part of the benchmarked amounts in those categories.

MR. STERNBERG: Mr. Rubenstein, I understand this is a request you are making of Mercer to expand their answer. I am not pausing over how that relates to the methodology and scope of the study -- or not scope, but methodology of their study. What we'll do is undertake to relay the request to them, and, if they're able to reasonably do that, they will, and, if not, we will advise.

MR. RUBENSTEIN: Sure. Just to be clear, it may involve Toronto Hydro, also, because I'm asking for the amount of actual compensation that is benchmarked.

Just to give you, to provide, some colour here, I mean here we had asked you for the 2-K broken down by employee groups in the study. You refused to do it and provide it -- and were willing to do it in a different way. So now I need to translate, in some aspects, part of that study in the way that you're willing to provide it, just so you understand where some of these questions are going.

MR. STERNBERG: Okay. Thanks. That's helpful. We'll take it back to Mercer and, as need be, confer with Toronto Hydro, and, if we're in a position to provide the information or Mercer is, we will, and, if not, we'll advise.

MR. RUBENSTEIN: Can I ask you to turn to --

MR. MURRAY: Before we do -- hold on. Let's get that a number, JT3.37.

UNDERTAKING JT3.37: TO PROVIDE A REVISED VERSION OF THOSE TABLES THAT SHOW THE TOTAL NUMBER OF EMPLOYEES IN EACH OF THE FOUR CATEGORIES FROM THE AMPCO-84A: MANAGEMENT, EXECUTIVE, UNION AND NON-UNION, AND THE TOTAL AMOUNTS THAT ARE BENCHMARKED; AND THEN THE TOTAL AMOUNT OF COMPENSATION THAT WAS PART OF THE

BENCHMARKED AMOUNTS IN THOSE CATEGORIES.

MR. RUBENSTEIN: Can I ask you to go to part C. Just so we understand the question here, we had asked:

> "For each of Toronto Hydro's groups, please provide an estimate of the dollar difference between the weighted average total compensation for Toronto Hydro's employees and the P15 medium used in the study. Please provide the amount for the year the study is representative of and then, for each year up to 2029 please provide a step-by-step explanation of how the estimate was reached, including all supporting calculation so the numbers can be verified."

Now, in the response, there's a lengthy commentary by Mercer, that it believes that the plus or minus 5 percent is the appropriate way to do it, and it provides that in Table 3. But then, in Table 4, it provides what, as I understand, the number that was actually requested in the interrogatory.

And, when I read the explanation that starts on that page, between line 2 and line 9, I will be honest, I'm quite confused because it still talks about it being above or below the plus or minus 5 percent, but it goes back to the part of the question that was not responded to, which is to provide a step-by-step explanation of how the estimates were reached and all supporting calculation so the number can be verified.

Can you please provide that information?

MR. STERNBERG: Again, this is a request for Mercer, so we'll relay the request to them and see if they are in a position to provide more detail in respect of how they did the calculation that you see in the response.

MR. RUBENSTEIN: Okay. Well, clearly, they did the calculation. There's a bunch of -- they took the study, gathered some numbers, and got to that response.

MR. STERNBERG: Yes, as I'm reading the response, I think they gave some explanation or some description of how, of their methodology. I understand you're wanting more detail on it, so we'll relay that request and see what they come back with.

MR. RUBENSTEIN: Just to be clear, not just more written detail, to understand -- see the numbers, that they can be verified that the numbers, if you take the study and get to this number, all the steps, including all the numbers.

MR. STERNBERG: We can talk offline, unless you want to indicate what the relevance is to the numbers. You want to check their math? Help me understand, other than understanding the methodology and detail.

MR. RUBENSTEIN: Both. I think it's better. It's helpful to understand the methodology. Obviously, it's not a perfectly simple exercise, as I take it from the response, but also to provide the results.

MR. STERNBERG: Okay. Again, we'll relay the request and advise you what they come back with.

MR. RUBENSTEIN: That's fine. Now --

MR. MURRAY: That will be undertaking JT3.38.

UNDERTAKING JT3.38: TO RESPOND WITH MORE DETAIL TO AMPCO-34C, INCLUDING THE METHODOLOGY AND RESULTS.

MR. RUBENSTEIN: Now, at line 10, Mercer says:

"The dollar difference values beyond the year of the current study are not available and cannot be done in a manner that [audio dropout] substantive results because the methodology of the study reflects a point-in-time approach. Specifically, the study was not designed to be forward looking. Its purpose was to assess the competitive position of Toronto Hydro on an overall basis compared to 2022 market rates."

Do you see that?

MR. CLARK: I'm sorry. Which letter are we looking at here?

MR. RUBENSTEIN: I'm looking on the screen. This is part C and beginning in line 10 on that page.

MR. CLARK: Okay. Yes, I see it.

MR. RUBENSTEIN: Now, this is really for you to go back to Mercer. I was a bit confused by that response, only the fact that Mercer has done that analysis before. In fact, it did it in the Hydro One JRAP proceeding. I can draw your attention to, in that proceeding, the 2022-011 [audio dropout] them through you to E-SEC-212 and JT5.10.20. So would I ask you to go back to them and ask them again, and, if there's a reason why they were able to do it there and they can't do it here, a similar compensation study, similar question.

MR. STERNBERG: My recollection is there was a difference in that proceeding in terms of the scope of their study, including that they did a forecast study, as well, projecting forward. So I think there may be a difference, but it's -- more importantly, we'll relay the request to Mercer, and they will advise if they can do it, and, if they can't, they'll further explain why they can't do it and what the reason for that is.

MR. MURRAY: That will be undertaking JT3.39.

UNDERTAKING JT3.39: TO ASK MERCER WHY THEY WERE ABLE TO MAKE A COMPENSATION STUDY IN THE JRAP PROCEEDING, AND WHY THEY CAN'T DO A SIMILAR COMPENSATION STUDY IN THIS CASE.

MR. RUBENSTEIN: Can we go down to the next page. All right, one second. Just hold on. Give me a moment, please. Can we go back to page 4 of that response? In the discussion -- you can see this at line 14 -- Mercer says:

> "The PWU employee population was not compared to the general industry peer group given the energy-specific responsibility seed in the majority of the PWU benchmark positions, benchmark jobs."

Do you see that?

MR. CLARK: Yes, I do.

MR. RUBENSTEIN: Can we go to Exhibit 4, Tab 4, Schedule 5, Appendix B? This is the study, Appendix B of the study. Go to Appendix B of that study. It's the last page, I believe. If we can, scroll down to the bottom of the page, where it shows the number of bargaining -- it shows the bargaining positions which were included in the review.

Can I ask you to ask Mercer, for the PWU positions specifically, the total number of benchmarked employees for each of those positions?

So that's, sorry, just to be clear again -- I apologize -- for each of those PWU positions, the total employees in those positions of Toronto Hydro compared to the total employees that are benchmarked for those positions.

MR. STERNBERG: On a best efforts basis, we'll make that request of Mercer.

MR. RUBENSTEIN: Thank you very much.

MR. MURRAY: That will be undertaking JT3.40.

UNDERTAKING JT3.40: TO INQUIRE OF MERCER, FOR THE PWU POSITIONS SPECIFICALLY, THE TOTAL EMPLOYEES IN THOSE POSITIONS OF TORONTO HYDRO COMPARED TO TOTAL EMPLOYEES THAT ARE BENCHMARKED FOR THOSE POSITIONS.

MR. RUBENSTEIN: Can I ask, can I ask you to turn to 4-CCMBC-20B? A similar question was asked in SEC-15 about the makeup of the general industry comparator. In both responses, Mercer comments that we, both SEC and CCMBC misunderstood those, that the companies listed in Appendix A for that category does not reflect the total universe of that sample of the general industry comparative group, in fact there's 90 organizations. Can you please provide a list of the 90 organizations? Or ask you to ask Mercer to provide the 90 organizations?

MR. STERNBERG: We'll relay the request to Mercer. I'm not sure if there's any concern on their part with -- from a confidentiality perspective or otherwise with disclosing all of those names, but we'll relay the request, and if they're in a position to provide it we will, if not we will advise.

MR. MURRAY: That will be undertaking JT3.41.

UNDERTAKING JT3.41: TO ASK MERCER TO PROVIDE A LIST OF THE 90 ORGANIZATIONS.

MR. RUBENSTEIN: Can I ask you to turn to 5-VECC-77. And in part B, and this is also discussed in D, you talk about the 5 basis point admin fee added to the long term debt.

In part D you were asked about the costs. Go down to part D. You were asked to explain the costs -- please explain what cost the administration fee recoups as distinct from the various costs that are included in the OM&A budget, and you discuss that. Do you see that?

MR. ZENI: Yes.

MR. RUBENSTEIN: Are you able to provide all the issuances during the current rate term, the actual administration costs that you did incur, and compare them against the interest that is recovered based on the 5 basis points admin fee, included in the -- added to the long term debt issuance?

MR. ZENI: We don't necessarily track each of these individual type of expenditures in isolation. These are the type of activities that the treasury department will undertake for the various issuances. Is the ask to provide individual costs or the aggregate of the costs?

MR. RUBENSTEIN: I'm looking for all the issuances. What are the -- there is a certain -- as I understand, the 5 percent administration fee that's added to the long term debt rate for any issuance is for administration costs that you don't recover through OM&A, and you provide details of what those look like. Do I understand that correct?

MR. ZENI: Correct.

MR. RUBENSTEIN: And I want to understand, for each of the issuances that you've had during the rate term, what are those costs, in aggregate, for each of those issuances. So I can compare them against what -- or you can compare them against what the impact of that 5 percent administration fee.

MR. ZENI: Yes, we can undertake that.

MR. RUBENSTEIN: Thank you very much.

MR. MURRAY: That will be undertaking JT3.42.

UNDERTAKING JT3.42: FOR EACH OF THE ISSUANCES DURING THIS CURRENT RATE TERM, SO BEGINNING IN 2020, SO FOR EACH OF THEM, THE ACTUAL ADMINISTRATION COST THAT TORONTO HYDRO INCURRED AS COMPARED TO THE IMPACT OF THE 5 PERCENT BASIS POINTS THAT YOU'RE COLLECTING.

MR. RUBENSTEIN: And so, just so it's clear, because I'm not sure I was clear, so just so it's clear for the record, I'm seeking for each of the issuances during this current rate term, so beginning in 2020, so for each of them, the actual administration cost that Toronto Hydro incurred as compared to the impact of the 5 percent basis points that you're collecting.

MR. ZENI: Correct.

MR. RUBENSTEIN: Okay. Thank you. Can I ask now if you can turn to 9-Staff-343C? And this is with respect to the, as I understand, the DRVA account, and you talk about that the prudency of the expenditures in this account will be supported by detailed evidence which will be filed in the 2030 rebasing application. And so I -- do I have that correct? That's the plan?

MS. COBAN: That's correct.

MR. RUBENSTEIN: And will both sub accounts -- is the plan to dispose of them for the first time in the 2030 application, both the revenue and expenditure sub accounts?

MS. COBAN: That's correct.

MR. RUBENSTEIN: So, assuming that the 2030 application plays out on a similar timeline as compared to the current application, you would be recovering costs, or you would be seeking to recover or credit, or essentially seeking to dispose of those accounts for the 2025 to 2027 period?

MS. COBAN: We would have actuals up to 2028 at this point in the process, 2029 would be our bridge year.

MR. RUBENSTEIN: So -- well, in this application you're seeking to dispose of -- you're seeking to dispose of DVA balances to what year?

MR. ZENI: So, for group 2 accounts, we are proposing to dispose them based on forecasting basis up to 2034.

MR. RUBENSTEIN: Is that your proposal with respect to the DRVA? You'll do it on a forecast up to the end of the bridge year?

MR. ZENI: Yes, that's correct.

MR. RUBENSTEIN: And how would that work with respect, for example, the revenue variance account? You won't know -- very hard to forecast what the revenue would be in that year, in a given year, even weather normalized.

MS. COBAN: That's right. So, with respect to the expenditure sub account, we would be looking for similar treatment with the other group DVAs that Mr. Zeni talked about on the revenue sub account, you are correct, that we'd have to dispose up to the 2027 balances and then have a further disposition in the annual updates.

MR. RUBENSTEIN: Okay. So, that's my -- you're getting to my next question, then with the 2028 and 2029 balances be disposed of at the following rebasing application, which would be for 2035 rates or before?

MS. COBAN: We'd be looking at doing that in the annual updates.

MR. RUBENSTEIN: Thank you very much. Can I ask you to turn to 9-Staff-344C. In part A or part B, just scroll up a moment. No, part A, I apologize. Just scroll down a bit for a second, sorry. You provide -- for the 2019 year, you provide an ESM calculation, but it explains how your -- for triple R purposes you're calculating the ROE? Do I have that right, what that's showing?

MR. ZENI: Sorry, can you repeat the question again?

MR. RUBENSTEIN: I just want to understand the table, while it -- the final line is a comparison against, in my understanding, an ESM calculation. The rest of the table is, essentially, explaining the adjustments you make to get to the ROE. Correct?

MR. ZENI: Correct.

MR. RUBENSTEIN: I was wondering, and in part C you talk about the preliminary ROE for 2023 is 6.8 percent?

MR. ZENI: Yes.

MR. RUBENSTEIN: I was wondering if you could provide a similar table that shows how you get to the ROE, the adjustment, for 2023, and then provide an explanation of the drivers of the under-earning in 2023?

MR. ZENI: Yes, we can take that undertaking.

MR. MURRAY: That will be undertaking JT3.43.

UNDERTAKING JT3.43: REFERRING TO 9-STAFF-344C: TO PROVIDE A SIMILAR TABLE THAT SHOWS HOW YOU GET TO THE ROE, THE ADJUSTMENT, FOR 2023, AND THEN PROVIDE AN EXPLANATION OF THE DRIVERS OF THE UNDER-EARNING IN 2023

MR. RUBENSTEIN: Can I ask you to go to 6-SEC-120. And you provided a table that we had asked you to that shows the deficiencies, and you see it on the bottom line.

I was wondering if you can provide a revised version of that table that shows the deficiency as compared to the 2024 rates in every -- 2024 rates at the forecast load, not the previous. What you've done, as I understand, is the

2026 deficiency is against the 2025 approved rates and so on. But I'm looking at it against the 2024 approved rates for each year.

MR. ZENI: Sorry, do you mind repeating the question?

MR. RUBENSTEIN: Sure. As I understand this table and how you have calculated the deficiency, it's based on the previous year's approved rates.

For example, in 2026, you're comparing -- you are essentially taking the load forecast as compared to what would be your proposed 2025 rate, and compared against the revenue requirement and the load you needed.

I am asking you for a similar calculation, but for every year the distribution rates are the currently approved 2024 rates, so we can see what is the total deficiency against the last Board-approved rates.

MR. ZENI: Yes, we can provide that.

MR. RUBENSTEIN: Thank you, very much.

MR. MURRAY: That will be undertaking JT3.44.

UNDERTAKING JT3.44: TO PROVIDE A REVISED VERSION OF THE TABLE IN 6-SEC-120 SHOWING DEFICIENCY AS COMPARED TO THE 2024 RATES AT THE FORECAST LOAD.

MR. RUBENSTEIN: Can I ask you to turn to 8-SEC-125? And so we asked you to provide a table that shows for each year between 2012 and 2029, for each rate class, essentially the rates broken down into four categories.

And, in your response, you provide what is essentially the bill impact on a bill-impact basis, broken down by those categories. But I wasn't looking for the bill-impact basis on a typical customer; I was looking for the actual rates.

Can you provide that?

MS. DOLZHENKOVA: Yes, we can provide that.

MR. MURRAY: That will be undertaking JT3.45.

UNDERTAKING JT3.45: TO REVISIT THE RESPONSE TO 8-SEC-125 AND TO INCLUDE ACTUAL RATES.

MR. RUBENSTEIN: And just give me a second to just check my notes. Thank you, very much. Those are my questions.

MR. MURRAY: Thank you, very much, Mr. Rubenstein. I realize we are close to five o'clock, but at the same point, I also know that we are sort of touch and go in terms of getting our schedule done on time.

So I want to check if Mr. Ladanyi is ready to start off and if he has a couple of discrete areas that he can kind of knock off in about 10 minutes, that might be the preferable course forward.

MR. LADANYI: Thank you, Mr. Murray. Yes, I do.

EXAMINATION BY MR. LADANYI:

My name is Tom Ladanyi, and I am a consultant representing the Coalition of Concerned Manufacturers and Businesses of Canada. And if you read the transcripts from panel 1, you know that the coalition was formed in 2016 by a group of 418 former members of the Canadian Manufacturers and Exporters.

So that we know what is at stake in this proceeding, I understand that you are requesting OEB approval of rate increases shown in an exhibit that you filed on April 2. So please turn to 1B, tab 1, schedule 3, page 3, table 2, updated April 2, 2024. Yes, thank you. That's it.

So, in looking at that table, I see that you are seeking rate -- approval for rate increases of 13 percent or higher in 2025 for my clients. Is that right?

MS. DOLZHENKOVA: If you mean GS 50 TO 1000, that's correct.

MR. LADANYI: Thank you. So just in general terms, and I don't want you to do any calculations, why are you seeking rate increases of 13 percent for commercial and industrial customers, and only 7.6 percent for residential customers?

MS. DOLZHENKOVA: The key reason for the variances between the two is related to the outputs off the cost allocation model.

MR. LADANYI: We would have to get into the numbers and look at them?

MS. DOLZHENKOVA: That's correct.

MR. LADANYI: And we might do this in the hearing, but not here and now, not in the technical conference, which is fine.

So please turn to Exhibit 8, tab 1, schedule 1, original, tables 5.1 and -- sorry, 5-1 and 5-2, which is "Bill impacts", pages 14 and 15. So let's look first at table 5-1, which is on page 14. Yes. Thank you.

So I understand from your evidence and discussions that we've had earlier in this technical conference, one of your objectives of your rate application was to keep the rate increase for residential customers at 7 percent. And I see that in the last column; is that right? That's an average rate increase. Is that the 7 percent you were mentioning?

MS. DOLZHENKOVA: That's correct.

MR. LADANYI: So if you turn to the next page, which is page 15, I see that the average increases for commercial and industrial customer classes are not 7 percent. Did you have an objective for rate increases for commercial-industrial customers?

MS. COBAN: Our objective for all customer classes was to find the minimum investments necessary to achieve the outcomes that we know are important to these customers, and be able to deliver those outcomes at an affordable price.

We did not express that objective in terms of a price limit for all the other classes. We expressed it in terms of the residential class, as it has the most number of customers, and the largest portion of our revenue coming from that class.

But the underlying objective that underpins the 7 percent very much applies to the other rate classes in terms of finding that balance I spoke about.

MR. LADANYI: As I understand it, as a result of your cost allocation, you had to allocate more costs to the commercial-industrial customers, for whatever reason. And the numbers came out as they did; is that right?

MS. DOLZHENKOVA: That's correct.

MR. LADANYI: Thank you. Now, please turn to 1B-CCMBC-3. Now, in questions B, C and D, I asked a few questions about the Toronto-specific labour index, and I will not repeat those questions. And you pointed me to your response to 1B-Staff-93. And now the second-to-last sentence on page 3 -- would you go to page 3, please? You decided to withdraw the custom labour inflation proposal. Is that right?

MS. COBAN: That's correct.

MR. LADANYI: Why did you do that?

MS. COBAN: When we looked more closely at the data that underpinned this proposal, and understood that data in terms of what it is showing us year over year in terms of those trends as we saw here in the updated table, we felt that that data didn't represent what we had initially assumed in crafting that custom proposal. So it was essentially an error that we corrected upon taking a closer look at this data. You have the corrected table here.

And reflecting on what the corrected table is showing us, we decided to withdraw that proposal.

MR. LADANYI: So you expected, if I understand correctly, that the Toronto-specific labour index would have higher percentage increases than what you actually found, and then you abandoned it?

MS. COBAN: No. The correction was with respect to our data in terms of what we are seeing in the appendix 2K, not --

MR. LADANYI: This is, like, "our data"? I mean, Toronto Hydro's own compensation.

MS. COBAN: Correct.

MR. LADANYI: All right, thank you. Now please turn to 4-CCMBC-18. This interrogatory asked in part A: Please confirm that, in general, compensation and benefits of experienced employees who are retiring are higher than new inexperienced employees.

And I understand that, as I read your answer, that you more or less agreed with me, but you qualified it. Am I correct in that?

MR. CLARK: Yes, that's correct, Mr. Ladanyi.

MR. LADANYI: And, in part B, I asked: What is the saving in OM&A cost from the replacement of experienced retiring employees with new employees over the 2023 to 2029 period?

And you can turn to the next page for your response. And I have looked at your response and thank you for it. I just have a simple kind of like a summary question, if you like: Does the replacement of older employees with younger employees reduce or increase costs, or does it have no effect?

MR. CLARK: I think, if we start on line 4, we state that, unfortunately, it is not possible to quantify the requested information.

MR. LADANYI: So we don't really know. We don't know whether it's increasing or decreasing cost or whether it has no effect. That's your answer. You don't know; you can't figure it out?

MR. CLARK: I think there are many direct and indirect investment costs. So, for example, if you replace a retiring employee with a new employee, there would be differences in productivity level. Added to that, also, you have the training costs, on-boarding costs, upskilling, which are not possible to attribute to this one individual happenstance of a new employee replacing a retired employee.

MR. LADANYI: So I understand what you're saying. This is too complicated to figure out; there are many moving parts, and you're not sure?

MR. CLARK: That's correct.

MR. LADANYI: Now, please turn to 4-CCMBC-20. I think we just saw that earlier, with Mr. Rubenstein, and there's an undertaking for that, which is JT3.41.

I have a question that probably will not be answered in JT3.41. Can you ask Mercer whether the compensation and benefits for employees, which is nonexecutive compensation and benefits for employees, are higher in Alberta than in Ontario or lower in Alberta than in Ontario? Can you ask them that? This is on the average.

MR. STERNBERG: We'll relay that request to Mercer.

MR. MURRAY: That will be undertaking JT3.46.

UNDERTAKING JT3.46: TO ASK MERCER WHETHER THE COMPENSATION AND BENEFITS FOR EMPLOYEES, WHICH IS NON-

EXECUTIVE COMPENSATION AND BENEFITS FOR EMPLOYEES, ARE HIGHER IN ALBERTA THAN IN ONTARIO OR LOWER IN ALBERTA THAN IN ONTARIO.

MR. LADANYI: And these are actually all my questions on behalf of the Coalition of Concerned Manufacturers and Businesses of Canada. Now, as you know, I'm also representing Energy Probe, and I have a bunch of questions for Energy Probe. Should I continue, Mr. Murray, or should I stop now?

MR. MURRAY: I think now is a good time to stop, and we'll start again tomorrow at 9:30.

MR. LADANYI: Thank you, panel.

--- Whereupon the conference adjourned at 5:01 p.m.