Ontario

ONTARIO ENERGY BOARD

FILE NO.	**EB-2025-0297**	**Ontario Power Generation Inc.**

VOLUME:	**6**
DATE:	**June 18, 2026**

EB-2025-0297

THE ONTARIO ENERGY BOARD

Ontario Power Generation Inc.

Application for payment amounts for the period from January 1, 2027, to December 31, 2031

Technical Conference held virtually
on Thursday, June 18, 2026, commencing at 9:29 a.m.

Volume 6

<u>A P P E A R A N C E S</u>

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JULIE FRAYER	Panel 1 - London Economics International (LEI)
DAN DANE	Panel 2 – Concentric Energy Advisors
NICK CROWLEY	Panel 3 – Christensen Associates Energy Consulting
SHERRY WANG DAN MCLEOD	Panel 4 - Christensen Associates Energy Consulting
SHELLEY GRICE	Association of Major Power Consumers of Ontario (AMPCO)
CLEMENT LI	Building Owners and Managers Association (BOMA)
TOM LADANYI	Coalition of Concerned Manufacturers and Businesses of Canada (CCMBC)
LAWRIE GLUCK	Consumers Council of Canada (CCC)
TOM LADANYI	Energy Probe Research Foundation
DANIEL VOLLMER	Minogi Corp.
SCOTT WALKER	Ontario Association of Physical Plant Administrators (OAPPA)

A P P E A R A N C E S

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MARK RUBENSTEIN JAY SHEPHERD	School Energy Coalition (SEC)
MARK GARNER	Vulnerable Energy Consumers Coalition (VECC)
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U N D E R T A K I N G S

Thursday, June 18, 2026

--- Upon resuming at 9:29 a.m.

M. MILLAR: Good morning, everyone. Welcome to the second technical conference in the OPG proceeding EB-2025-0297. My name is Michael Millar, I am counsel for OEB Staff and will be acting as the host today.

Ashley, could I turn to you for the land acknowledgement.

LAND ACKNOWLEDGEMENT

A. SANASIE: The Ontario Energy Board acknowledges that our headquarters in Toronto is located on the traditional territory of many Nations including the Mississaugas of the Credit, the Anishinaabeg, the Chippewa, the Haudenosaunee, and the Wendat peoples.

This area is now home to many diverse First Nations, Inuit, and Métis peoples. We also acknowledge that Toronto is covered by Treaty 13 with the Mississaugas of the Credit. We are grateful for the opportunity to gather and work on these lands and recognize our shared responsibility to support and be good stewards of them. Thanks.

M. MILLAR: Thank you, Ms. Sanasie.

I understand there are no preliminary matters, so I am going to jump quickly into appearances, and then we will get right to the questioning.

APPEARANCES

MR. MILLAR: As I said, I am Michael Millar, I am counsel for OEB Staff. The other Staff members with us today are Tom Eminowicz, Jeff Sauer, Fiona O'Connell, and Ian Richler will be joining us as well.

I will turn to the Company and then go to the parties. Just a reminder, you only have to put in an appearance if you expect to speak today on the record. So if you are just sitting and watching you, don't need to do an appearance.

Mr. Sternberg, could I turn to you.

A. STERNBERG: Yes. It is Arlen Sternberg, counsel to the Applicants, accompanied by my colleague Jon Silver. We are also here with two OPG representatives, Ms. Zadeh and Ms. Brown, although I don't expect that they will be speaking.

M. MILLAR: Thank you.

Mr. Walker.

S. WALKER: Good morning, Mr. Millar. Good morning, everyone. My name is Scott Walker, and I am the consultant for the Ontario universities in this proceeding.

M. MILLAR: Thank you.

Mr. Shepherd, I see you are up now.

J. SHEPHERD: Jay Shepherd for the School Energy Coalition, and joining me is Mark Rubenstein.

M. MILLAR: Okay. I am going to kind of go through who I see on the screen here.

Mr. Gluck.

L. GLUCK: Lawrie Gluck on behalf of the Consumers Council of Canada.

M. MILLAR: Good morning. I see Mr. Silver already has an appearance put in, so I will move to Mr. Ladanyi.

T. LADANYI: Good morning. Tom Ladanyi on behalf of Energy Probe and Coalition of Concerned Manufacturers and Businesses of Canada. I will be asking questions on behalf of Energy Probe this afternoon. I have no questions this morning.

M. MILLAR: Okay. Thank you, Mr. Ladanyi.

Mr. Garner.

M. GARNER: Mark Garner on behalf of VECC.

M. MILLAR: Mr. Rubenstein. I think it is Mark Rubenstein. He may have just stepped away for a moment.

M. RUBENSTEIN: I believe Mr. Shepherd put me in.

M. MILLAR: Oh, did he put you in? I am sorry. I didn't even hear.

I see Mr. McLeod. Are you there?

Okay. Mr. Vollmer.

D. VOLLMER: Good morning. Daniel Vollmer, counsel for Minogi Corp.

M. MILLAR: Mr. Li, are you there?

C. LI: Yes, yes. Clement Li on behalf of BOMA Toronto.

M. MILLAR: Great.
Ms. Grice.
S. GRICE: Sorry about that. Good morning. Shelley Grice on behalf of AMPCO.
M. MILLAR: And Mr. Boyle.
C. BOYLE: Good morning. Colm Boyle here on behalf of WTFN. I will figure out my camera by this afternoon.
M. MILLAR: Okay. Thank you, Mr. Boyle.
Is there anyone else who needs to put in an appearance? Okay. Hearing no one, I think we can turn it right over to the witnesses -- or the witness. I think it is LEI who is up first. Mr. Sternberg, would you like to introduce your witness, and then we can get straight to the questions.
A. STERNBERG: Sure. The first witness for this morning is Julia Frayer of London Economics International, LEI, who is on the line with us, and I think we are ready to proceed with intervenor's questions.
M. MILLAR: Great. We had circulated a schedule last night. I think OAPPA and CCC are actually going to switch in the order. So we have OAPPA up first. So I will turn it over to Scott. And I have got you down for 40 minutes.
S. WALKER: I will do my best to try and stay under that, Mr. Millar.
M. MILLAR: Okay. We do very much want to

finish today, and we are at -- we are past 4:00, I think, to finish. In any event, I will ask everyone to do their diligent best to be within their time limits, and I will be poking you if people are going long.

Okay. Over to you, Scott.

PANEL 1

CROSS-EXAMINATION BY S. WALKER (OAPPA):

S. WALKER: Thank you, Ms. Frayer, for being here and for your indulgence today with our additional questions. I was fascinated by the study you undertook for OPG specific to the I minus X hydraulic rate adjustment mechanism, so my questions principally concern the determination of the productivity factor as in the X component of the adjustment equation.

So can I please ask that we bring up Exhibit A1, Tab 3, Schedule 2, Attachment 2, page 26.

Maybe while that is coming up, Ms. Frayer, I wanted to share with you that I was probably one of the few people who read your report like it was a John Grisham novel. I was absolutely enthralled by a seemingly harmless gathering of 36 peers coming together for a weekend retreat on a private island in the St. Lawrence River hosted by OPG.

And then the peers start dropping like flies. Somebody insults the French ambassador. There is even a covert government conspiracy causing all the

Canadian guests to leave the island.

But eventually the reader grows attached to a smaller subset of peers who are staying on the island, gets enthralled with their characters, and really enjoys and is engaged by the rigour and thoughtfulness of your analysis.

And then, boom, plot twist. The story concludes with OPG saying, yeah, thanks, but no thanks. We are just going to do nothing. It is just zero. I mean, sure, everyone gets off the island safely, but still. Were you disappointed by that outcome?

J. FRAYER: I --

A. STERNBERG: Sorry, that is not -- sorry. Just give me a moment to unmute. I don't think that is an appropriate question, whether she is personally disappointed about something or not. But if you have got a question that relates to the work she did in her report, by all means, please.

S. WALKER: Sorry. Do you agree with the outcome of what OPG did with your report, Ms. Frayer?

A. STERNBERG: Well, yes, I don't think that is -- or if you have really argue questions about what OPG did or why it is appropriate, if -- I think Ms. Frayer is here to talk about the study she did and the report she prepared, not what OPG subsequently did in respect of the rate framework or the reasoning for their proposals.

S. WALKER: Okay. And, again, subject to

correction here by Mr. Sternberg, but why do you suppose OPG would go to all the trouble of commissioning a study from you, and then ignore all your recommendations?

A. STERNBERG: Well, I don't think it is an appropriate question. I also don't agree with the characterization. I don't think they ignored the recommendations. And I think OPG's evidence explains the way in which the study informed the proposal they have put forward.

S. WALKER: I guess, Ms. Frayer, what I was trying to get at was did OPG potentially expect a different outcome from your study.

A. STERNBERG: Well, I think that is a question for OPG. I am not sure it would be relevant either, but it certainly would not be for Ms. Frayer to speculate on what OPG was or was not expecting.

S. WALKER: Okay. Well, this is probably even a dumber question, then, Mr. Sternberg.

Ms. Frayer, I would just like to confirm that a negative growth factor actually chooses to escalate the rate adjustment mechanism; is that correct?

J. FRAYER: So, Mr. Walker, I just want to make sure I understand your question. You are asking about the mechanics of how a finding of a negative X factor would work within an IR framework?

S. WALKER: Exactly.

J. FRAYER: So a negative X would -- if adopted, would translate into an increase in rates so long as the value of the -- well, I think it -- there is a relationship there as well with inflation. So the formula is I minus X. So if we have minus a negative number that is increasing it, of course there could be hypothetically deflation. But we won't get there.

But in the context of positive inflation, it would mean a further increase on top of inflation.

S. WALKER: Thank you. That was my understanding. I just wanted to clarify that a negative negative actually serves to add to the overall escalation factor; correct?

J. FRAYER: Yes.

S. WALKER: Okay. Awesome. Thank you.

So just looking at the list here in -- boy, I hope you can see that. I am a little bit challenged. I was surprised that none of the former Niagara Mohawk generation assets were on the list.

So a lot of those 77 stations would share many of the characteristics of OPG's, similar climate, asset vintages, and, in certain circumstances, the same river sources. Why did you not consider any of those specific assets in your study?

J. FRAYER: So our list of industry peers was developed, as we discuss in the report, based on the available data. So we did start with a much wider universe, as described in the report, of hydroelectric operators but were not able to collect the data from -- that would be necessary to conduct the study over the time frame of that study.

So we described pretty extensively the companies we sought to collect data from in both the U.S. and Canada. And if the data was unavailable for a period of time of our study or inadequate, we had concerns around it and we couldn't get those concerns addressed, although, in many cases, we actually called the company to do so, that company couldn't be part of the study.

S. WALKER: Okay. Fair enough.

So how many people in this list actually use an I minus X hydraulic rate adjustment mechanism?

J. FRAYER: I don't believe other than OPG, which is -- I don't think we see it on the screen, but it is part of the TFP study. Other hydroelectric operators in the U.S. explicitly use an I minus X.

S. WALKER: Sorry. So is that everybody on this list uses an I minus X?

J. FRAYER: No. The opposite.

S. WALKER: Nobody uses it?

J. FRAYER: Nobody on this list other than OPG use an I minus X regime explicitly.

S. WALKER: Okay. So there is no ability to sort of infer amongst these participants in your list whether they were, in fact, changed their productivity as a consequence of an I minus X factor, then?

J. FRAYER: As is common practice among practitioners of total factor productivity studies for industries, we do not divide up the industry based on regulatory regime when looking at long-term average trends for total factor productivity. It is an interesting question, but we don't do that.

S. WALKER: Right, right. Purely speculative, then. So any sort of suggestion around a Hawthorne effect or a quantum Zeno effect on that group because they had an I minus X really wasn't part of what you considered?

J. FRAYER: Our scope did not consider the items you just have just mentioned.

S. WALKER: Yeah. Fair enough. Okay. Thank you for that.

Excepting the Western Area Power Administration, or WAPA in this list, OPG is otherwise the big dog in this group of peers; agreed?

J. FRAYER: Yes. In terms of absolute capacity, as this table shows, OPG would come in number 2.

S. WALKER: Thank you.

So ignoring my wife's opinion on the matter, can you tell me if size actually matters within the context of productivity?

J. FRAYER: We actually establish that answer in our total cost benchmarking study for purposes of relative efficiency and relative productivity.

But this study that we are looking at right now, an industry total factor productivity study does not examine productivity levels. What it examines is the trend in TFP.

And for purposes of the trend in TFP over long periods of time, it is inconclusive whether economies of scale would accelerate or decelerate. We have actually seen deceleration as well or diminishing returns.

S. WALKER: So just in kind layman's terms, a 30-megawatt station may or may not be more or less productive than a 100-megawatt station? Sorry, in your expert exposure.

J. FRAYER: Again, I think that you are perhaps misunderstanding the focus of this study. It isn't to establish relative productivity. It is to look at productivity over time, changes in productivity for the industry as a whole over time. And these generators have a range of power plants, some small, some large.

What we are targeting to do with an industry study in total factor productivity trends is to analyze a variety of hydroelectric operators who may have a variety of different types of hydroelectric plants and look at the progress or change in productivity over time rather than establish productivity levels at a specific point in time.

S. WALKER: I think I understand what you just said.

So would my asking a question about how OPG's productivity compared to WAPA's -- we love the acronym, by the way -- be a relevant question? Are you able to tell me if OPG had a similar productivity to WAPA in your study?

J. FRAYER: So a total factor productivity study, again, what we are looking at right now would not address that question. It looks at trends over time for the industry as a whole. That is the -- and I -- there are sections of the report we can go to that describe that being the goal, given the purpose to inform the calibration of a productivity target in an I minus X framework. A benchmarking study, which we also completed, could address that.

S. WALKER: Okay. That is not something that has been submitted as part of the evidence, though, is it?

J. FRAYER: We did submit a total cost benchmarking study.

S. WALKER: Okay. Okay. Oh, awesome. So I think I understood your answer to say, we weren't doing a specific point-of-time productivity comparison. We were doing a trend analysis over an extended period of time, the same period of time, obviously; do I have that correct?

J. FRAYER: Yes. We were focused on a trend over time and a trend for the industry as a whole.

S. WALKER: Okay. Okay. Yeah, fair enough.

J. FRAYER: In the TFP study.

S. WALKER: Okay. Yeah, some of my next questions are irrelevant, then, within that context. Thank you for that clarification.

Can I ask that we please back up a couple of pages, same exhibit. Go to page 24. And if we could just go to the bottom of the page with the actual footnotes, maybe blow it up a bit. Yeah, thank you.

And in Footnote 44, you disclose that you did not differentiate between some rather significant operating environments here. Did you ignore these factors because they were not relevant or because the analysis would not be possible if you included them?

J. FRAYER: We did not consider these factors because we weren't trying to differentiate in our analysis. This is an industry study where we are attempting to capture all kinds of firms, subject, of course, to data availability across a variety, perhaps, of commercial, regulatory, and business objectives.

And we aren't looking at financial questions. We are looking at physical productivity and the change of that physical productivity for the industry as a whole over time.

S. WALKER: So not necessarily as motivated by price signals from the market or commercial arrangements that the entities may or may not have with other parties?

J. FRAYER: That is correct. So a total factor productivity is looking at technical change, technology improvements, to the extent that -- and this would not apply to a hydroelectric industry, but the concept of serving more customers with the same set of inputs because of customer growth would be another form of productivity improvement over time.

Those are the type of factors that were the driving -- that are considered the driving force behind it.

So, again, it wasn't a study of relative efficiency. It was a study of the trend in industry-wide total factor productivity. And in any industry, you might have firms operating under a variety of different arrangements with different decisions behind those.

S. WALKER: Okay. Fair enough. So you wouldn't -- you wouldn't really be able to comment about whether productivity has any real relevance in terms of the -- sorry -- would have -- in a market where it is real-time or capacity-based, your study didn't really include any sort of considerations around productivity associated with those sort of externalities, then?

J. FRAYER: We did not consider productivity trend impacts.

S. WALKER: Yeah, okay. Yeah, no, fair enough. I wanted to make sure I was clear on -- but are you aware that OPG is also proposing to earn revenue in the real-time market as distinct from the revenue it is going to earn from Ontario's day-ahead market and its IRM-determined rate?

A. STERNBERG: Yeah, I am not -- I am not -- I am not sure this is within the scope of LEI's evidence. I mean, if you can restate it or tie it in some way to being a question about their analysis or study, then there won't be any issue.

But the way you framed it, it seemed like it is something that is outside the scope of LEI's mandate and work in this case.

S. WALKER: Yeah, fair enough. It is certainly part of the evidence, but it would not have been part of their report. Okay. Maybe I can contextualize it a little differently.

Ms. Frayer, if a generating entity is motivated to produce more from the pricing signals it gets from the real-time market, do you still need a productivity adjustment?

A. STERNBERG: I think that also may be a question that is more appropriate for OPG. I mean, if Ms. Frayer has a response in respect of the work she did or the study, I am fine with her providing that. But I think the way you framed that, that would be a question for OPG.

S. WALKER: Okay. Yeah. Thank you, Mr. Sternberg.

Okay. So maybe we can go back to my plot twist from earlier. Can we please pull up page 56 from the same exhibit, and that is Section 7 of the report. And can we, please, go to the last paragraph on this page. Your analysis and report confirms -- yeah, thank you. Maybe a little bit bigger for some of us in the back.

Your -- the conclusion that I am inferring from this is that hydraulic production will never be positive. And as you may or may not be aware per Mr. Sternberg, the Board has said no negatives in its prior decisions.

So I wonder, that sort of context, why would we continue to include productivity in the I minus X formula?

A. STERNBERG: Sorry. In terms of -- maybe you can break it down, Mr. Walker. Apologies for the interjection. It sounded like the first part of your question was asking about the conclusion of her study, which I take no issue with.

I think you ended up with a question that is more about the appropriateness of rate frameworks in the regulatory environment in Ontario going forward or in the future, which I think is not something that is within Ms. Frayer's scope of work here.

So perhaps if you can focus on the question that relates to what her conclusions were, you won't -- you won't get an -- you won't get an interjection from me on that.

S. WALKER: Okay. Fair enough. Thank you.

So is it -- is it generally true, though, that hydraulic generation over time will never be positive in terms of its productivity? Is that a general statement of hydraulic generation assets? Is that correct?

J. FRAYER: I would not infer that to be a universal truth. I think that is the purpose of doing empirical studies such as the one before you. So my paragraph at the bottom where we are providing an understanding of the results of this -- this study in words or relating it to what we are seeing in the historical data, an industry TFP study by its nature is a historical study, so we need to understand those numbers.

The future is uncertain, especially for long-lived assets and the possibility of technological gains, as we see in our daily lives for other types of gadgets and services we receive.

So I don't think I would conclude that if we end up doing -- I think it would be incorrect to conclude, if we did a TFP study at some point in the future, that we should always assume a negative TFP trend.

But the results of this study, the historical data, that tells a story for the purposes of this study, and that is what I am explaining in this paragraph.

S. WALKER: Understood. Thank you for that clarification.

I did just want to go back to a point you made earlier, which was all of the folks in your study, none of them are actually using an I minus X rate adjustment mechanism, and that is true; correct?

J. FRAYER: Yes, as I answered earlier.

S. WALKER: Yeah. Are you aware of anybody in North America that uses productivity in an I minus X type of circumstance?

J. FRAYER: Well, there are many other industries -- well, other industries that are regulated that do apply an I minus X, so, yes. There are what we call "vertically integrated utilities" that are -- that basically have multiple functions under the same utility umbrella that involve generation. They also use multi-year rate plans and other forms of PBR that do something quite similar.

So there are analogies, but no one is on a formal I minus X framework, to my knowledge, that involves hydroelectric generation. But there are -- there are, I would believe, analogies to be made. I would have to take some time to think about that, though.

S. WALKER: For example, nuclear; right? There is productivities associated with that particular generation type, then?

J. FRAYER: Well, I would have to think about the specifics. I can't answer off the spot.

S. WALKER: Yeah, fair enough. Fair enough. Good. Ms. Frayer, thank you so much for your indulgence with my questions. Those are all my questions.

Mr. Millar, I am giving you back ten minutes, sir.

M. MILLAR: Great. A gold star for you, Mr. Walker, to start us off.

Mr. Gluck, I think you are next. And how long do I have you for, Lawrie? Is it --

L. GLUCK: It's about 15 minutes.

M. MILLAR: Oh, 15?

L. GLUCK: I don't expect it will take more than that so --

M. MILLAR: Okay. Great. Off you go.

L. GLUCK: Thank you, Mr. Millar.

CROSS-EXAMINATION BY L. GLUCK (CCC):

L. GLUCK: Good morning.

J. FRAYER: Good morning.

L. GLUCK: If we could -- good morning. If we could start with A1, Tab 3, Schedule 2, Attachment 3, page 7, please. Yes. And if we could just scroll down slightly towards the bottom of the page. Thank you.

And in the summary of results here, OPG is ranked in the first quintile using the OM&A model with cost 42 percent lower than the benchmark and is ranked in the second quintile using the OM&A plus sustaining capital with cost 15 percent lower than the benchmark; is that -- is that correct?

J. FRAYER: Yes, that is correct. And the benchmark is other entities' costs when controlling for the same factors as described here.

L. GLUCK: Perfect. Thank you.

J. FRAYER: Just for clarity, yeah.

L. GLUCK: Thank you.

And based on the relative decline in cost performance, OPG's cost performance once sustaining capital is considered in the benchmarking model, it would be fair to say that OPG's capital cost-effectiveness is worse than its operational cost performance?

J. FRAYER: I think what we would interpret from this analysis is that in an econometric model, when we are looking at the relationship between total costs and factors or drivers of those total costs inclusive of sustaining capital, OPG's relative performance, still above average, above other entities' costs. But in terms of, I guess, absolute ranking, there is a little bit of a change. We have compared it to the OM&A-only model.

What we don't have and what we don't believe is relevant is to look at just sustaining capital -- excuse me -- on its own.

So I think I would generally agree, Mr. Gluck, with the statement. The only caveat is that the way you phrased it leaves the impression that we have an econometric model that just looked at capital spend in isolation, which we don't.

L. GLUCK: Okay. No, that is fair. Thank you.

If we could go to A1-CCC-8, please. And if we could go to part -- the response to Part E. Thank you. And in this response, LEI explains that it did not perform the benchmarking analysis inclusive of all capital costs because the non-sustaining capital investments are dependent on where each company is in its investment cycle, and the econometric analysis is over a short time frame, and there are problems with the EUCG database in terms of how far back in time the data is available.

Is that a reasonable summary of the reason why LEI did not include all capital costs as part of its benchmarking study?

J. FRAYER: I didn't have a chance to write down all the words you said in your question, so -- but I believe the answer that we have provided in E is thorough. It is an actual excerpt of our discussion regarding certain additional capital investments for improvements, capital improvements, that we did not include, and there were a variety of reasons for us to not include them, given the structure of the study.

L. GLUCK: Thank you.

And if we go to Part F, please. And here there is a definition of "sustaining capability costs." And when I read the definition, there appear to be a number of qualifying statements regarding what costs are and are not sustaining capability-related. For example, the definition says that capital costs usually include replacements and may or may not include technological improvements that extend equipment useful life.

So my question for you is how is -- how is LEI confident that all of the companies in its peer group have recorded their capital costs with respect to an allocation between sustaining and non-sustaining in a manner that is equivalent to each other?

J. FRAYER: So our answer in this question comes from an excerpt we provided on the reporting instructions that EUCG sends out to all the participants in its group. There are extensive, extensive instructions. The manual is very long. And there are checks done once the data is received to ensure that it is thoroughly consistent and compliant with the requirements.

L. GLUCK: So the LEI has a high degree of confidence that -- you know, just choosing two peers in the model, that they would have recorded sustaining capital in the exact same way?

J. FRAYER: Generally, we have confidence that the EUCG dataset has been created with the intentional purpose of allowing for this type of cost benchmarking.

L. GLUCK: Thank you.

And would you agree, then, if you were simply to use total capital costs in the benchmarking, there would be no concerns at all about how different utilities in the peer group have recorded the costs?

It would eliminate all judgment and any requirement for checking as to how different companies have recorded their costs for comparison purposes.

J. FRAYER: Let me answer this question with a little bit of a longer answer in the sense, first of all, what we are using for capital is the spend. Just to differentiate that vocabulary from the components of capital cost that go into a revenue requirement. This is the spend, the actual dollars expended, so CapEx.

If we started down the path of considering hypothetically to include the non-sustaining CapEx, our study would no longer be able to reasonably benchmark utilities. So that -- I guess computationally, we could have included it, but it would no longer be a reasonable benchmarking study because, for the reasons we stated in the report, it would not allow for a meaningful comparison of companies.

There are certain projects, extraordinary projects, that are taken on for very good reasons by a single company, but there would be no basis to make a comparison to other companies at that point.

L. GLUCK: And when you say that, I think what you are referring to is your commentary around sort of companies being at different points in their investment cycle at any given time. Is that what you are referring to in that response?

J. FRAYER: I am referring to investment cycle, but I am also referring to even a broader consideration here in that the type of projects that we excluded are opportunities that are not available across the board to companies.

It may be impossible to do that type of work with certain hydroelectric generation, and therefore, we cannot expect that even if we did a very long time frame, we would capture those types of projects on a reasonable distribution across other peers in the company -- other peers in the study.

Think of them as maybe, like, unique opportunities. Very difficult to do justice to a comparison of unique opportunities.

L. GLUCK: So can you give me an example of something like that, that, you know, one company can do and another company could not do?

J. FRAYER: I would need to think about it. I would want to make sure that I gave you a good example. I am not sure I am ready to do that right here, right now.

L. GLUCK: Okay. My understanding -- you can please correct me if I am wrong, but my understanding is what is in your model -- in your benchmarking study, I should say, with respect to the capital costs is -- there is two buckets.

So there is sustaining capital, which is in, and then non-sustaining, which is out, which are things like, you know, sort of -- the wording that OPG uses, at least, is in their -- in their -- this is -- just to give you the reference, it is Exhibit D1, Tab 1, Schedule 1, Table 3, if you want it.

But they basically use the words "regulatory" as one category and "value enhancing strategic" as another category, and those are the two categories, at least for OPG, that are out of your -- out from your benchmarking.

And I am just struggling to understand why every company wouldn't have -- every peer in the peer group, every hydroelectric generator, wouldn't have the same sort of spending. Maybe not exactly the same, of course, but similar.

J. FRAYER: I don't have the -- handy the IR that you were referring to, which I believe OPG authored, so it is not an IR that I authored.

L. GLUCK: Yeah.

J. FRAYER: And I appreciate your question.

Maybe I --

L. GLUCK: I can give you the reference again if it is helpful. It is in the pre-filed evidence. It is June --

A. STERNBERG: Perhaps we can pull -- perhaps we can pull it up, given what the witness said --

L. GLUCK: Sure.

A. STERNBERG: -- so she is aware of specifically what you are referring to. Thanks.

L. GLUCK: Absolutely. So it is Exhibit 1 -- D1, Tab 1, Schedule 1, Table 3.

And what I was referring to is they have -- they have basically three categories of hydroelectric capital spending. Sustaining -- so line 2 is what is in -- what I understand to be in LEI's model, and then there is two other categories that are not.

J. FRAYER: I would probably need to get back to you on it and perhaps -- again, not familiar -- I see the numbers, but not familiar with these specific definitions, so would need time to understand them.

L. GLUCK: That is fair. If you would -- if you could take an undertaking to advise as to why -- I guess the fundamental question is why regulatory and value enhancing or strategic investments are not comparable across hydroelectric generators.

M. MILLAR: I am going to mark -- I am going to continue the numeration from the first technical conference just so we can keep track of things.

And sorry, Mr. Sternberg, were you looking to interject?

A. STERNBERG: I was just going to say, assuming Ms. Frayer is comfortable with that -- I know there is limited time for when undertaking responses are to be provided, but if she is comfortable with it, I think on a best-efforts basis, we can undertake to do it.

I don't know, in hearing the question, whether she would also need additional data regarding the peers in the study and how they deal with those categories of costs, so -- but as long as it is understood that, on a best-efforts basis, within the time allowed, we will undertake to try to provide a response.

M. MILLAR: Okay. Let's proceed on that basis, JT-6.1.

L. GLUCK: Thank you.

UNDERTAKING JT-6.1: Advise why regulatory and value enhancing or strategic investments are not comparable across hydroelectric generators

L. GLUCK: And my last question for you is -- and I think you have said this to me now, and you said it in Part E to CCC-8, that you don't think -- LEI doesn't consider the benchmarking analysis inclusive of all capital costs to be appropriate. I think you just said that to me now, and you have said that in Part E to this response.

But is there the necessary data available to do that analysis with the EUCG database? So between 2020 and 2023, to do the benchmarking with OM&A plus total capital?

J. FRAYER: So the information over that time frame that you just mentioned, 2020 to 2023, is there, but it would no longer be a valid benchmarking exercise. But you could look at the data.

L. GLUCK: And is that something you could do? Could you undertake to run the benchmarking using all of the assumptions and, you know, everything you have done for the OM&A plus SC model, but instead turn it into an OM&A plus total capital expenditure model?

A. STERNBERG: I am interjecting --

J. FRAYER: It would take a lot of time -- sorry, Arlen. Sorry.

A. STERNBERG: I am just -- sorry to interject. I am just interjecting because unless I am missing it, it sounds like that is the same request that you made in Part E, your Part E question of CCC-8, and you -- you got the position set out as to why LEI did not consider that to be appropriate and was not prepared to do it.

So I think you have the response there if -- unless you are asking something different. Perhaps you can clarify.

But I think the position is as set out in E. And if LEI is prepared to change that position, we will advise, but otherwise, you have the position set out there, and I don't think this is something that you brought a motion on previously.

L. GLUCK: Okay. It is the same question, so I am taking the answer as, no, you will not run that?

A. STERNBERG: Yes, I think you can -- for today, we will take that as the position. If that position changes, we will certainly advise. But for today, the position is consistent with the response.

J. FRAYER: Yes. It is not a benchmarking analysis.

L. GLUCK: Okay. Thank you so much. I appreciate all the answers. Those are my questions.

M. MILLAR: Thank you, Mr. Gluck.

We have CCC next. Is that you, Mr. Shepherd?

J. SHEPHERD: Yes.

M. MILLAR: Okay. I have got you down for 45 minutes. We are going to look to -- actually, that will probably take us to our break. So I will turn it over to you.

J. SHEPHERD: That will be my target, thank you.

CROSS-EXAMINATION BY J. SHEPHERD (SEC):

J. SHEPHERD: Hello, Ms. Frayer.

J. FRAYER: Good morning.

J. SHEPHERD: Good morning. So the formula that was provided by OPG, that was proposed by OPG, the price cap index, that is not your formula. They are proposing it. You don't have an opinion on that.

You did the background studies; is that right?
J. FRAYER: Yes, that is correct. I performed certain technical studies.
J. SHEPHERD: Okay. So I won't ask you questions about what they are proposing as a formula. I will ask you questions about your three studies.
Now, you did studies on the three different components of the -- or three of the components of the PCI proposal; right? The inflation, TFP, and benchmarking. So inflation for the I factor, TFP for the X factor, and benchmarking for the stretch factor; right?
J. FRAYER: Yes, those are the three studies: the industry TFP, the total cost benchmarking, and the inflation analysis.
J. SHEPHERD: Okay. And the formula that is proposed doesn't include inflation or TFP in capital costs; right? The capital component of revenue requirement doesn't include those things because it is actually cost of service; right?
J. FRAYER: Sorry, the formula, are you referring to the evidence of the company --
J. SHEPHERD: I am saying what you -- your study says -- for example, you say, here is inflation for all components of cost. But they are not implying inflation to capital cost, it is cost of service; right? They are doing a forecast?
J. FRAYER: I am not sure I can answer that

question.

J. SHEPHERD: You don't know the answer?

J. FRAYER: Well, I am -- I think you are asking me about specifics of how OPG applied different components to their -- to their price cap formula?

J. SHEPHERD: Yes.

J. FRAYER: In their price cap formula.

It was not in my mandate to --

J. SHEPHERD: See, what I am trying to do is I am trying to avoid a whole long discussion about what you apply inflation to and what you apply productivity to and how you calculate it if most of the revenue requirement, those are not included. Okay. And so if you can help me with that, that would simplify my questions.

J. FRAYER: Well, I am not sure I am totally aware of what you are asking.

J. SHEPHERD: Can I rephrase it?

J. FRAYER: Yes.

J. SHEPHERD: So the -- on the capital revenue requirement, OPG is proposing that you take inflation and productivity and a stretch -- sorry, inflation and productivity, and you calculate an amount, but then you calculate the difference between that and their cost of service numbers, their forecast, and give them extra to top up the difference.

And so what that means, I think, is that your inflation number and your productivity number don't matter in the context of the capital component of revenue requirement because it is only the forecast that matters. You can undertake to respond to this if you prefer.

A. STERNBERG: I am pausing, Mr. Shepherd, because it sounds like it may be more a question for OPG. To move it along, perhaps we can deal with it by way of undertaking, and if LEI is able to respond, they will. And if not, we can ask OPG if they can.

J. SHEPHERD: Awesome.

M. MILLAR: Okay. So we will call that JT-6.2. And, Mr. Sternberg or Mr. Shepherd, could you please state what the undertaking is.

J. SHEPHERD: Yeah, sure. The undertaking is to confirm that the capital component of revenue requirement does not include inflation or TFP or X factor because there is an adjustment to track to the forecast of capital revenue requirement.

M. MILLAR: JT-6.2.

UNDERTAKING JT-6.2: Confirm that the capital component of revenue requirement does not include inflation or TFP or X factor because there is an adjustment to track to the forecast of capital revenue requirement

J. SHEPHERD: Okay. So then related to that -- and you may want to include this in the same thing, I don't know, but your stretch factor does apply to capital; right? Because they -- OPG has taken the stretch factor that you have proposed, 0.15, which is from your benchmarking study.

J. FRAYER: 0.15, yeah, is from my benchmarking study, yeah.

J. SHEPHERD: And has reduced their capital revenue requirement forecast by that percentage; is that right?

J. FRAYER: Again, it wasn't part of my scope to independently dig in to review the -- or make recommendations on the actual formula for the price cap that OPG is proposing. But I believe that is the -- if my memory serves me right, I believe that is correct.

J. SHEPHERD: Okay. And if it turns out that there is some nuance to that, maybe you could include in the undertaking a comment on that. And if not, we will just take what you have just said. The --

A. STERNBERG: If there is any -- why don't we leave it this way: If there is anything to add on that, we will do so by way of undertaking.

J. SHEPHERD: Yeah.

So the reason I ask that is because I took a look. Have you looked at the -- the -- Dr. Lowry's responses to the interrogatories that were filed the other day?

J. FRAYER: I actually haven't had a chance yet.

J. SHEPHERD: Okay. So you haven't seen any of the responses he made to your questions?

J. FRAYER: No. I have not had a chance.

J. SHEPHERD: Okay. So I thought part of the reason why we had a technical conference and why we were waiting for this date was so that we could identify the areas in which you and Dr. Lowry disagreed?

A. STERNBERG: I don't -- that is not our understanding. What has led to this technical conference is that we understood, I think, primarily from SEC and CCC, that there were some follow-up questions that they had to interrogatory responses that LEI provided.

We canvassed whether those could be dealt with by way of further undertaking. There was objection to that, and the Board agreed that it was appropriate to have follow-up questions be asked by way of a technical conference, and this was scheduled.

It was unrelated to the timing of -- that part of it is unrelated to the timing of PEG's responses. PEG's responses were delivered two days ago, the 16th, and parties were told that you will have an opportunity to ask PEG questions, and you can -- once you see those, you can inform the Board, as of yesterday, whether you have questions for PEG at this TC. But it wasn't scheduled in a way so that LEI would be reviewing them in one day and then responding.

The other thing I would just note by way of reminder is that the Procedural Order deals with reply evidence and has provided that reply evidence, if there is going to be any, including from LEI, is to be provided on June 26th. So that is a topic that is being considered. We are not there yet.

If there is going to be reply from LEI to PEG's reports or PEG's interrogatory responses, those will be provided by way of a report on June 26th, and we would then go from there. I assume it hasn't been provided yet.

I assume the Board will provide an opportunity for interrogatories, if need be, on any reply reports that are delivered, but we are not there in the schedule.

J. SHEPHERD: So --

A. STERNBERG: So this is -- today is not an opportunity to ask for oral reply essentially, is a short way of capturing what I was just saying.

J. SHEPHERD: So -- so sorry. Am I to understand that this technical conference is not to identify differences between the technical experts?

A. STERNBERG: It is -- our understanding is that the technical conference is to ask questions for purposes of reviewing or clarifying each expert's evidence.

So in terms of LEI, the purpose would be to ask questions to ensure there is an understanding or clarification on LEI's reports that have been delivered to date or their interrogatory responses. But it is not an opportunity to canvass or seek oral reply.

Again, there may be reply evidence delivered, which -- and subsequent steps after that will deal with any such evidence.

J. SHEPHERD: All right. I am -- that is sort of unfortunate because it lengthens the oral hearing, but what can we do.

A. STERNBERG: And sorry to -- apologies for interrupting, but as Ms. Frayer has just indicated as a practical matter, because we only got the PEG responses late in the day on the 16th, that she just has not had a chance, because there has only been one day, to yet review those interrogatory responses.

J. SHEPHERD: Well, I only had one day too, and I have. And I am not even --

A. STERNBERG: Fair enough.

J. SHEPHERD: So -- all right. I want to move to a couple of other things.

In your inflation study, you proposed that inflation should apply to all costs; right? And, in fact, you have said the labour costs are -- should be a labour index of some sort. I think you are using AWE. I could be wrong, but I think so. And for all other costs, capital and operating, the inflation should apply to -- should use GDP IPI final demand; is that right?

J. FRAYER: It is correct that we recommend the continued use of a two-factor input price-based index, and we do recommend also changing the weighting of the indices based on the latest information for the industry.

J. SHEPHERD: Okay. But you are still proposing that inflation should apply to all of costs; right?

J. FRAYER: So in our input inflation index, we are considering labour, non-labour, and capital inflation indices as components. So we are saying that those are relevant for use in a price cap setting that considers those types of costs. But we I don't believe make any explicit recommendations as to the actual design of -- of the price cap formula that I believe that is outside of our scope. That was taken up by OPG's witnesses.

J. SHEPHERD: Okay. The reason I ask this is because, if I understand correctly, about 56 percent of OPG's costs in any given year are the costs associated with opening rate base. The depreciation, the cost of capital, and taxes associated with opening rate base total 56 or 60 percent of their total revenue requirement; does that sound about right to you?

J. FRAYER: I don't have the data in front of me to confirm that, Mr. Shepherd.

J. SHEPHERD: It is a big number; would you agree with that?

J. FRAYER: I am happy to take it at your word that it is a large number, yeah.

J. SHEPHERD: Okay. I am asking that because from a ratepayer's point of view, you look at that, and you say, well, opening rate base revenue requirement goes down in real and nominal terms each year; right?

That is the opening rate base at the end of, let's say, 2026, the cost of that opening rate base to ratepayers should go down every year; right? Because depreciation stays the same, and rate base goes down; therefore, cost of capital goes down?

J. FRAYER: So the rate base on previously invested capital --

J. SHEPHERD: Yes.

J. FRAYER: -- in regulatory accounting terms, so we are moving away from the studies that we have done, but my understanding in regulatory accounting terms, depending on the accounting depreciation, should mathematically go down, but that isn't total rate base.

Again, I am using your words. That is historical -- historical -- historical investments. It doesn't consider new investments.

J. SHEPHERD: Understood. The reason I asked the question is because I was trying to figure out how your studies take into account the fact that a big component of revenue requirement declines. Like, there is no inflation on that, right, for example, but your studies don't take that into account?

J. FRAYER: Well, okay. Let's -- let's talk about our studies, how they take into account -- I think you are asking about rate base, right? So in the total factor productivity study, we do take into account capital stock, and we actually, first and foremost, bring capital stock into real dollar terms, and then we update it to consider both physical depreciation and new investment.

So the total factor productivity study for the industry does take into account all -- what the starting rate base was at some point in time in the back and properly takes into account how much capital is no longer, for example, useful in service, physical depreciation. It takes into account new investments, all on a real dollar basis so that we can extract out any -- there is essentially explicit deflation assumptions taken into account so that we can compare like-for-like units in our total factor productivity. So inflation --

J. SHEPHERD: Well, okay. Let me just stop you there.

J. FRAYER: -- is covered --

J. SHEPHERD: Sorry.

J. FRAYER: -- in our TFP study.

J. SHEPHERD: Sorry. Can I just stop you there because that was an important point that I wanted to understand. And that is how you do the calculation of capital stock in total factor productivity, that is not accounting rules; right? That is not even related to accounting rules? These are not similar? It is a different approach?

J. FRAYER: It is looking at physical productivity, but there have been empirical studies done, but that is still -- that could still be paired effectively -- and I can look up the footnote, if you want me to find it, for the papers -- with a variety of different accounting approaches to accounting depreciation.

J. SHEPHERD: Yeah, I wasn't asking -- I was asking whether it specifically tracks what revenue requirements should be?

J. FRAYER: The purpose of the total factor productivity and the science of the application of the I minus X is that the revenue requirement piece is done in the going-in rates. But after that is done, the I minus X formula, the -- the -- the -- with all the other various components to it -- I am just saying "I minus X" in air quotes -- is applied without having to reopen and redetermine the cost of service over the term of the PBR.

J. SHEPHERD: Is the I minus X not intended -- you have an expertise in this area, right, in -- in designing price cap indices; right?

J. FRAYER: I have -- not for this case, but I have looked into this from time to time, yeah.

J. SHEPHERD: Okay. So I thought that the I minus X was intended to be a proxy for the fair return standard. It's -- it would be a proxy for cost of service. It is intended to identify what the appropriate cost of service is going forward; is that not right?

J. FRAYER: I would reword it. In my own words, I would say that the I minus X -- again, we are using colloquially formula -- if it is applied to a properly estimated going-in rate, should allow for strong efficiency cost containment signals while also providing an opportunity for the company to recover their commercial rate of return. That is how, as an economist, I see the application of that generically.

J. SHEPHERD: So it does comply with the fair return standard?

J. FRAYER: If it is properly applied, yes, it is supposed to do that while also driving at the incentives for productivity.

J. SHEPHERD: Okay.

I want to -- I want to move to another area. Can you turn to A1-SEC-17-D, please. So this talks about your capital-related inflation indices, and what it says is that you used something called "the implicit rental price of capital." So I have no idea what you are talking about. Could you explain that? I read your reports. I still don't understand.

J. FRAYER: So the rental price of capital is -- if we go to Slide 29 of the inflation study. Unfortunately, I don't know exactly -- yes, thank you. It is presented on Slide 29.

J. SHEPHERD: I saw that.

J. FRAYER: And in addition, although I think we could stay on this, it is discussed in our total factor productivity report.

J. SHEPHERD: Yes, I read it there too.

J. FRAYER: Yeah. And this is a formula that was developed many -- some time ago -- let me put it that way -- in order to provide a measure for the price of capital cost that goes into analysis of -- analysis of the totality of capital costs that would be covered in a total factor productivity study.

So it is -- basically, think of it as the price of using capital.

J. SHEPHERD: So --

J. FRAYER: That is why it is labelled "rental price of capital." And it incorporates the cost of capital, the WACC. It incorporates inflation. It incorporates the construction costs and consideration also of depreciation.

J. SHEPHERD: So it is not a historical cost; it is market cost? It is the rental price at market?

J. FRAYER: At market because it is trying to take into account the cost -- again, the weighted average cost of capital, the use, but also the inflationary pressures from making new investments as well. We incorporated it to step back as part of our consideration of different input price indices, because theoretically, it is a very valid way to think about it.

It is something actually that the Board had some experience with many moons ago, I believe in first generation incentive ratemaking, which is now taking us back multiple decades.

There was an attempt to do something similar. It wasn't as complete as this formula, but it was -- there was an attempt to have a more precise measure about the kind of capital-specific index. It is -- attempts to be more volatile, as described here as well, and we wanted to show what the calculations would imply. It is the implied rate, the grey line in the chart.

J. SHEPHERD: Yes.

J. FRAYER: And so we wanted to show that. We considered it, but we determined that we would not recommend that for the purposes of the inflation factor.

J. SHEPHERD: Okay.

M. GARNER: Sorry, Mr. Shepherd.

J. SHEPHERD: But you used it -- you used it as a sort of a test to see whether your other approaches were sensible?

J. FRAYER: When you say, "other approaches," I guess, other choices for --

J. SHEPHERD: Yeah, your eventual recommendation, you then looked at it and said, well, if we used implied rental price, how would it differ, and is that a reasonable difference; is that right?

J. FRAYER: We -- we definitely considered it. On the next page, we have the various criteria.

J. SHEPHERD: Yes.

J. FRAYER: Our moon chart of colours and the implied rental price. First of all, it is complex. So it is not simple. There is, I would say academic precedent, but not a lot of practical regulatory precedent using it. The data, you need to look for it. And we had some other concerns and issues with it, as you can see. The index is more volitable (ph).

So it didn't -- it didn't score very well. And for that reason, the best scoring capital input price index that we thought would work for the incentive rate making plan was the continuation of using GDP IPI.

M. GARNER: Sorry, Mr. Shepherd. It's Mark Garner. Do you mind if I just -- before you go too far because you're going to leave the slide --

J. SHEPHERD: Is somebody jumping in? I can't hear you, whoever is talking.

M. GARNER: Yeah, it is Mark Garner. Jay? Can you hear me? Mr. Shepherd, can you hear me?

J. SHEPHERD: I can barely hear you.

M. GARNER: Can anybody else hear me?

M. MILLAR: I can hear you, Mr. Garner. I guess, Jay, what -- Mark is asking to interject with a quick question, but I want to make sure that the court reporter can hear him.

M. GARNER: Yeah. Maybe I can't be heard for some reason. I'm not sure.

M. MILLAR: There is some background noise that is picking up there, Mr. Garner. I can hear you well enough to get the questions.

Ms. Frayer, can you hear Mr. Garner?

J. FRAYER: Yes, I can.

M. MILLAR: Okay. And Court Reporter, Mr. Siddal, can you hear him?

Okay. Mark, why don't you go ahead and speak as loudly as you can into your microphone.

M. GARNER: Yeah, I apologize. I will try to speak clearly. Sorry.

It was on the slide just before. And before it was left -- if we can just go back one slide. I just had a quick question. You know the formula you are looking at, PK minus R plus D CAP, you have added inflation expected, long-term inflation. Sorry, now I have a dog in the background. But you also have a 10-year long bond yield.

J. FRAYER: So the formula in the first bullet at the top of the slide is not a formula I am proposing. It was a summary of the formula that was actually used in the first generation incentive rate making plan many moons ago in Ontario for electric distributors.

M. GARNER: Thank you. That will suffice. Thank you. I was just a little confused about that. Thank you.

I am sorry, Mr. Shepherd, go ahead.

J. SHEPHERD: Okay. So I just have a couple more questions. The -- your benchmarking, one of the critiques that Dr. Lowry had of your benchmarking is that it only benchmarks past data. In fact, I think it only goes up to 2022 or 2023.

And so he benchmarked going forward to the forecast that OPG has provided and said that on the basis of that forecast, OPG was wildly more expensive than the peer group. Have you seen that stuff? Have you considered that?

J. FRAYER: I have reviewed Dr. Lowry's testimony because that came in a few weeks ago. I am still continuing to do that review.

A. STERNBERG: And I am not sure, Mr. Shepherd, what -- you know, what further questions you have on this. Again, I am just interjecting in the case that if a reply is going to be delivered, it will be delivered from LEI on June 26th.

As she just indicated, this is something that is still being considered at this point.

J. SHEPHERD: Does your data -- let me put it a different way: Does your data, Ms. Frayer, show that OPG's forecast of costs is significantly above the peer group in the future period?

J. FRAYER: I did not do any projections or forecasts with an econometric-based benchmarking study that I performed and put forward in my evidence.

J. SHEPHERD: And you haven't yet looked at Dr. Lowry's calculation of what your number should say on future benchmarking; right? He has given us numbers. He has said, based on your model, this is what Ms. Frayer's result would be, and based on our model, the PEG model, this is what our results would be. You haven't looked at that yet?

A. STERNBERG: Sorry, sorry, for -- just to assist the witness, Mr. Shepherd, can you help us? Are you referring to something in his report or the interrogatory responses that I believe the witness said she has not had a chance to look at yet from Mr. Lowry?

J. SHEPHERD: Well, so where I got it was from N_M4-OPG-020, which is one of the interrogatory responses that came in two days ago.

A. STERNBERG: I think --

J. SHEPHERD: But I think I saw it somewhere else, but that is where I have the most recent information.

A. STERNBERG: Okay. I think the witness -- I mean, if she has something to add, she can. I think she has indicated clearly she hasn't had a chance yet to review those interrogatories that just came in a day and a half ago.

J. SHEPHERD: So presumably, we will see that in the reply?

A. STERNBERG: Yeah, if there is going to be a reply report delivered that addresses that topic, then you will get that in -- by way of a report on June 26th.

J. SHEPHERD: Well, sorry, you are saying -- you are not saying that you will reply to that calculation; you are saying maybe you will and maybe you will just ignore it.

A. STERNBERG: I think what I am indicating is that whether there is going to be a reply report, and, if so, the scope of the reply report from LEI, is something that is still being considered at this point. And, of course, we will want LEI to have a chance to take a look at the interrogatory responses that just came in and consider whether LEI has any reply it.

So that has not yet -- that is still being considered. And subject to those determinations, whatever -- if there is a reply report, that will be delivered on the 26th. It is still under consideration.

J. SHEPHERD: I am sorry, I don't mean to be obtuse here. I am just trying to figure out when are we going to get to the point when we can identify the differences between Dr. Lowry and Ms. Frayer on these given issues?

A. STERNBERG: Well, you have got -- obviously, you have got their reports at this point. And if there is any reply evidence that LEI has, you are going to get that on the 26th. So you will have the full scope of the reports by June 26th from these respective experts.

J. SHEPHERD: But we are never going to have the experts talking to each other's comments?

A. STERNBERG: Well, they are in writing through their reports already, their interrogatory responses, and by way of any reply report that is delivered. So there is a written --

J. SHEPHERD: Which --

A. STERNBERG: -- there is a written exchange.

J. SHEPHERD: Which you don't know whether we will get.

A. STERNBERG: It is still being determined. But we know that if there is going to be reply, again, under the established timetable from the Board, you will receive that shortly on June 26th.

J. SHEPHERD: Okay. You asked --

J. FRAYER: And can I jump in?

J. SHEPHERD: Sure.

J. FRAYER: I don't believe -- again, I am still reviewing in detail, but Dr. Lowry's, PEG's evidence that was filed did not mention using my data, or London Economics' data or models, to perform any forward-looking cost benchmarking. So I am not sure when you saw it before, Mr. Shepherd, but I don't recall exactly what you mentioned.

J. SHEPHERD: Maybe I misunderstood it.

I am still going to be -- I mean, at some point, I am going to ask you to tell us what your benchmarking is going forward. And as far as I know, you haven't filed anything on that yet, and I would rather not wait until the oral hearing to ask those questions.

Now, you are not ready to answer them now. That is fine. And if you could answer them in your reply, that is great. But if we do that at the oral hearing, that will waste a lot of hearing time, and I just would rather not do that.

J. FRAYER: I believe I did actually answer that question or a formulation of that question about forward benchmarking in one of the IRs.

J. SHEPHERD: Well, I think you said you didn't do it.

J. FRAYER: And that -- I would refer you to that answer.

J. SHEPHERD: Okay. One of the critiques of your study is that you excluded investment capital in

-- that is, the non-sustaining capital -- in your benchmarking study and -- but then you benchmarked as if you were benchmarking total costs, which means that you were benchmarking -- and I think this is sort of a follow up to what Mr. Gluck was asking. Which means that you were benchmarking this big pot against a calculation done on a smaller pot. Is that right? Is that correct?

J. FRAYER: I don't think your description is accurate.

J. SHEPHERD: Okay. Can you help me?

J. FRAYER: So in our O&M plus sustaining capital model, we benchmark -- so let me step back.

OPG is part of the same EUCG dataset that we use to get detailed cost and other information, technical information, for well over -- I think we had over 250 power plants over our study time frame.

And we used exactly the same measures of OM&A categories and the same measures that go into this group of sustaining capital, so when we developed our econometric model of OM&A and sustaining capital, we benchmarked OPG against its peers exactly on the same categories of cost.

J. SHEPHERD: True. Understood.

But then you say as a result, the stretch factor should be 0.15, and that should be applied to everything?

J. FRAYER: We do conclude that the stretch factor is 0.15 when using the model. And we -- and as we state on page 25 of our report, we recommend that the stretch factor of 0.15 be corresponding to OEB's established cohorts for stretch factor assignments, which we had at the beginning of our report, be used.

So our sentence is:

"LEI recommends a stretch factor for OPG in the range of 0 to 0.15." [as read]

Zero being derived from the OM&A model, and 0.15 being derived from the OM&A plus sustaining capital model. So that is -- so that is our recommendation in terms of this particular study.

J. SHEPHERD: Right. So my question is you are proposing a stretch factor to be applied to all costs to prices, so all costs, even though you benchmarked to a subset of costs; right?

J. FRAYER: We benchmarked to the fullest set of costs that could be examined using benchmarking techniques.

J. SHEPHERD: Which excludes a big chunk of OPG's cost?

J. FRAYER: And it excludes the -- so I would say that there are certain costs that won't lend themselves to benchmarking even on -- and we identify those and explain those in our report, why they need to be excluded.

For example, water rental and so forth, as well as the improvement -- also land costs, environmental and regulatory costs, and plant investment -- investments tied to plant enhancements.

J. SHEPHERD: Okay. That is all my questions. Thank you.

M. MILLAR: Okay. Thank you, Mr. Shepherd.

I think that concludes the questions for LEI. We are a little bit of ahead of schedule, but I will still suggest we take our break just so we can switch over. I think it is Mr. Dane who is up next for Concentric.

So unless there is anything further for this witness, I suggest we take our morning break and return at 11:15.

And, Ms. Frayer, thank you very much for assisting us this morning.

J. FRAYER: Thank you.

M. MILLAR: Okay. We will see everyone at 11:15.

--- Upon recessing at 10:56 a.m.

--- Upon resuming at 11:14 a.m.

M. MILLAR: We are beginning with Panel 2, Concentric, with Mr. Dane. And unless there are any -- Mr. Silver, is there anything, any opening remarks you have for Mr. Dane, or are we ready to go?

J. SILVER: No, we are ready to go just to introduce Mr. Dane of Concentric Energy Advisors.

M. MILLAR: Okay. Great.

A. STERNBERG: I am back as well, Mr. Millar. Thanks.

M. MILLAR: Okay. So we got everyone here. Let's get started. Mr. Gluck, over to you.

PANEL 2

CROSS-EXAMINATION BY L. GLUCK (CCC):

L. GLUCK: Thank you. Good morning.

D. DANE: Good morning.

L. GLUCK: I would first like to discuss the credit rating agency reports that were referenced in Concentric's study. So if we can start by opening A2-3-1, Attachment 13, please. Thank you.

And can you confirm that this August 20, '24, report was the most recent S&P global rating report that was available for OPG at the time that Concentric developed its study?

D. DANE: Mr. Gluck, I don't recall. I think there has been a subsequent report.

L. GLUCK: My question was at the time that Concentric developed its study.

D. DANE: So the -- our report was completed in December '25. I don't recall when the subsequent report might have come out.

L. GLUCK: It came out -- I can tell you it came out in April of 2026, the next one.

D. DANE: Okay. Then confirmed.

L. GLUCK: Thank you.

And if we go to page 3 of this report. And you can see here that at this time, S&P Global was forecasting funds from operations to debt ratios of between 14 and 16 percent through 2025 and 2026; do you see that?

D. DANE: I do see that. And that is for OPG's entire corporate operations.

L. GLUCK: That is right. Thank you.

And if we could go to A2-Staff-10, Attachment 2, please. And we just discussed it. This is the S&P Global report that came out more recently. Do you see that?

D. DANE: I do.

L. GLUCK: Thank you.

And the 2026 report, if we go to page 4, please. This 2026 report shows that OPG's actual 2025 FFO to debt ratio was 25.5 percent; do you see that?

D. DANE: I do.

L. GLUCK: And the forward-looking forecast in this later report has also improved relative to the 2024 report showing through the end of 2028 a range of 16 to 21 percent; do you see that?

D. DANE: I do.

L. GLUCK: Thank you.

And does this overall improvement to OPG's -- OPG Inc.'s forecast FFO to debt ratio have any implications for your views regarding OPG's financial risks during the upcoming rate term?

D. DANE: So, Mr. Gluck, I did consider the credit rating agency's reports for information related to how investors consider OPG's risk, for instance. And, of course, these reports are focused from a debt investor's perspective, and my focus in the equity thickness report is on views from an equity investor's perspective.

So to your specific question about these reported metrics for OPG, again, they are on a corporate level. For the purposes of my analysis, which is focused on OPG's regulated assets, I performed a pro forma credit metric analysis to assess the implications of different credit -- sorry -- different equity thicknesses on OPG's financial risk and drew conclusions from that.

Certainly, though, the credit rating agency reports more generally informed my views, as I have just described.

L. GLUCK: Okay. Thank you.

Can we go to the Concentric report at page 49, please, so that is C1-1-1, Attachment 1.

D. DANE: And, Mr. Gluck, when you refer to page numbers, are you looking at the page numbers in the bottom of each page or the stamped numbers in the upper right-hand corner?

L. GLUCK: I am looking at the stamped numbers in the top corner.

D. DANE: Thank you.

L. GLUCK: Thanks. So you -- Concentric shows in Figure 10, if we just go down a little bit, that OPG falls below the credit ratio downgrade threshold in each year of the 2027 to 2031 period at an equity thickness of 45 percent.

And below the table, Concentric says that this indicates that, all else equal, a 45 percent equity ratio is not sufficient to maintain OPG's key credit metrics. Is that fair?

D. DANE: That is -- yes, that is what it says.

L. GLUCK: Thank you.

And can we go to CCC-26, Attachment 2, please. It is an Excel spreadsheet. Thank you. And this shows Concentric's calculations of OPG's regulated key credit metric ratios over the recent historical period? Is that what this attachment is showing?

D. DANE: I am just double-checking. So this is CCC-26?

L. GLUCK: Attachment 2.

D. DANE: And this asks for the same information in Exhibit 1 for the period 2017 to 2026. And, yes, this represents that analysis -- the pro forma analysis presented in the Concentric report over that historical period.

L. GLUCK: Thank you.

And if you look at the footnotes that start in row 31 there, I know it is a bit small on the screen, but you set out the credit rating agency downgrade thresholds. And for S&P, the threshold ratio is 13 percent for FFO to debt starting in 2020. And for Moody's, the threshold ratio is 15 percent for cash flow from operations to debt since 2024; is that correct?

D. DANE: Yes.

L. GLUCK: And OPG fell below S&P's 13 percent threshold in 2021 and 2024 using this pro forma-regulated view, and was OPG downgraded by S&P in either of those years?

D. DANE: No, it wasn't. And, again, this analysis is different than what is being presented in the S&P report.

L. GLUCK: Thank you.

And the same question with respect to the cash flow from operations to debt ratio for -- that Moody's uses, so OPG was below Moody's 15 percent threshold in 2024, and was OPG downgraded in 2024 or following 2024?

D. DANE: No.

L. GLUCK: Thank you.

Can we go to C1-CCC-26, Attachment 1, please. And this is the pro forma forecast regulated metric calculation that Concentric undertook; is that right?

D. DANE: Yes.

L. GLUCK: Can you walk me through it? Can you explain what Concentric did and, I guess, at a high level, what this math shows and how it was calculated?

D. DANE: Sure. I describe this in my report. I think we were just there in that section. But as described there, we -- Concentric provided a similar analysis that had been put forward in an -- in an -- in the 2020 proceeding with certain modifications to more closely align the analysis with credit rating agencies' methodologies and to focus on the metrics emphasized by the ratings agencies, as indicated by discussions in that ratings reports.

And so to do that, we -- as we described in the report, we developed a pro forma analysis that is based on calculating the -- those two key credit metrics on a forward-looking basis but doing that on a pro forma basis using only OPG's regulated operations and then substituting the hypothetical or deemed capital structure that is the subject of my report as a lever to determine the impact on those metrics of changes in that component.

L. GLUCK: Thank you.

And if we could go back to Attachment 1, please. And one thing I noticed in here that -- and I can't find it, and I was hoping you could help me, is how does the Pickering refurbishment-related concurrent cost recovery flow into -- flow into this analysis?

D. DANE: It does not directly flow into the analysis. And as I just described and maybe to elaborate, the analysis begins with rate base, which is under the regulatory construct financed by the capital structure, and then determines net income and cash flows from that metric, basically assuming a revenue requirement-style approach.

L. GLUCK: Okay.

And in your report, if we go to page 47, please. With respect to the CCR regulation, you -- Concentric explains that the concurrent cost recovery and interest expense on CWIP is credit supportive in that it provides incremental cash flow certainty during large utility construction projects relative to the alternative undertaking such projects without said report; is that right?

D. DANE: Yes.

L. GLUCK: So given the credit supportive nature of CCR, why -- why wouldn't it be reflected in the forecast key credit metric calculations of the regulated company?

D. DANE: As I just described, the starting point is the -- is the regulated rate base of the company, and so the cash flow metrics and the level of debt assumed in that analysis are based on applying the deemed capital structure to that rate base.

So absent from -- from both sides of the equation, our CCR as well as the interest cost incurred by OPG to -- that would be recovered through CCR. So for the purposes of my analysis, as I said, it is not directly incorporated in there, but it would essentially be a money in, money out type of -- type of flow through that analysis.

L. GLUCK: Can we -- thank you.

Can we go back to page 49, please. Thanks. So your report shows that -- that a 45 percent equity thickness OPG might be downgraded by the rating agencies. Is that what this table is showing?

D. DANE: The table is a bit more precise than that. It is showing how it would -- how these metrics would come out versus the downgrade thresholds and makes conclusions based on that.

L. GLUCK: Thank you.

And you are -- basically, you are showing in detail how they are below those thresholds in each of those years. But your model itself, the way you built the model, it doesn't include this large -- you know, it is $2.9 billion of cash flow during the upcoming term. And so can you explain that? Like, what should the Board take from your model? Is it -- is it connected to cash flows, like, actual OPG cash flows at all?

D. DANE: So you had a couple questions in there. And just to answer the first one about inclusion or exclusion of CCR, as I described, it is not directly included, but if it were to be, it would essentially be a cash flow in and a cash flow out because it reflects additional interest costs that are not captured under the approach that we used.

And so your second question was what should the Board take of this? And I recognize in the report that the Board has previously found that utility bond metrics do not speak to the issue of whether an ROE determination meets the requirements of the FRS. But -- and -- so understanding that, one of the components of the fair return standard is the financial integrity component, and that gets directly to questions about financial risk.

And so this analysis on a pro forma basis reflecting the deemed equity ratio, which is different than OPG's actual equity ratio, shows that in the ratemaking framework, that equity thickness does not support credit metrics within the current rating -- or the current ratings threshold for OPG.

L. GLUCK: Thank you.

And you would agree that it is missing -- the pro forma regulated analysis, regulatory analysis, or regulated analysis for OPG is missing cash flows, and you mentioned offsetting costs, but it is missing those?

D. DANE: As I described, it doesn't directly incorporate concurrent cost recovery, but I think from a results perspective and the conclusions that can be drawn, it is complete from the perspective of what we were -- of what we were designing the analysis to do. So I don't think it is missing information in that perspective.

L. GLUCK: So can I ask you to undertake to run a pro forma analysis that incorporates CCR so I can see what it looks like?

J. SILVER: Mr. Gluck, I think the witness has answered that in his model. It doesn't include cash flows in or out, so I think you are asking him to run a different model, which -- which we would refuse.

L. GLUCK: Okay.

So let me ask you a question. Let me ask something slightly different. So you say -- you just mentioned to me that, you know, it is missing the cash flow of CCR, the cash flow of the -- you know, the recovery of the interest expense prior to in-service, and then it would be missing the interest expense itself, right, that it is incurring on the assets. But is there not a portion -- from a regulatory perspective, is there not a portion of that CWIP that is notionally equity?

So they are earning -- they are going to recover on a hundred percent of the CWIP. They are going to get the long-term debt rate, the CCR. And the interest expense, from a regulatory perspective, really would be the deemed debt portion of that CWIP, and then there would be incremental cash flow, you know, the net income from the equity side of that deeming calculation.

Is that -- does what I am saying make sense, or am I way off base?

D. DANE: Is your question whether CCR understates the cost of capital?

L. GLUCK: No. It is that from a cash -- I thought you said to me that if we added CCR, then we would have to add the interest expense. Did I hear that right?

D. DANE: Yes. Well, as I said it, I think it was an in -- in and an out, from the perspective of the analysis.

L. GLUCK: Okay.

And what -- at the highest level, my question is, is there not -- or is there income, cash flow, above the costs that are incurred from a regulatory perspective from CCR once you apply the concept of a deemed capital structure?

D. DANE: So your question asked, is there -- are there cash flows above the cost, and I would say no. To the extent that the -- the rate of CCR is based on a debt-only rate and not reflective of the actual cost of capital, then, all else equal, it would understate that -- that portion of the cost.

So, again, I am not sure if that is your question.

L. GLUCK: No, yeah, we are definitely talking about the right -- the same thing right now. But when you -- okay.

In your calculation, you did a rate base-derived calculation, and you essentially said, you know, 45 percent is equity, 55 percent is debt; is that right?

D. DANE: Yes.

L. GLUCK: Okay.

And then in your pro forma calculation, that 55 percent of rate base attracts the -- the debt rate, and that is the interest expense shown in that table, the pro forma table?

D. DANE: That is correct.

L. GLUCK: Okay. And then the line item called -- let me try and find it. The net income line item, so column labelled "G" -- we are back in -- sorry, we are back in the Attachment 1.

So that net income line is essentially rate base times the deemed equity portion of rate base times the ROE number; is that right?

D. DANE: Sorry, can you repeat that?

L. GLUCK: Sure. The net income line, so labelled "G," is essentially A times C times B?

D. DANE: Yes, that is correct.

L. GLUCK: And that is how you are -- that is how you are coming up with the net income?

D. DANE: Yes.

L. GLUCK: So now let's convert this idea to Pickering CWIP. Okay. So you would take the Pickering refurbishment CWIP, which is, in your model, equivalent to rate base. Let's call it that. And then you would do that same calculation.

So you would take the CWIP, and you would multiply it by the capital structure, and then in this case, you would end up just applying the debt rate to both sides.

And the way I am viewing this is that some amount, so the CWIP times equity portion, portion of the CWIP times what is the long-term debt rate, as it is not the return on equity, that would flow to the net income line. And there would be cash flows associated from that, even in your model. Am I wrong?

D. DANE: In terms of the cost of equity, that is not being reflected. And in this hypothetical scenario you have put forward, I don't think it is as simplified as you have described it. There is still that cost being incurred overall to capitalize the company, and we are ascribing a lower rate to it through CCR.

But in terms of the cash flow, I guess I could agree with you if you isolated it the way you described, it could impact the analysis. I am just not -- I don't think that would correctly reflect the economics of it.

L. GLUCK: Thank you.

And I am going to ask one more time, and maybe the answer is the same, but I would appreciate if you would undertake to run a regulated pro forma inclusive of CCR.

J. SILVER: In response, I think I gave you the refusal before, but we would undertake to provide a clarification in writing as to -- you know, this has been a detailed discussion of some of these -- some of these calculations, so we would be willing to offer an undertaking to clarify how this analysis works in relation to the questions asked.

M. GARNER: Sorry, it is Mark Garner from VECC.

May I -- I am a little confused as to the refusal on -- what is the basis of the refusal? Is it the amount of work or the relevance? I am confused. Can you clarify that?

J. SILVER: The refusal is on the basis that Mr. Gluck is asking Mr. Dane to perform a different analysis than the analysis presented, and he has explained that -- he has explained in his answers that his analysis does not include the line items that Mr. Gluck is asking.

So it is a -- he is essentially asking Mr. Dane to undertake to do a different analysis on a -- in a --

M. GARNER: Well, he is simply asking to do something, right, because otherwise, he wouldn't be asking for something. I still don't really understand. I am very interested in the same thing. This is why my questions were going to the same area, and maybe we can lessen my questions. I still don't really understand.

I mean, I understand you may object to the form of the analysis. You may object that the outputs are not particularly relevant. But if it is not onerous, and it is available to be done relatively quickly, then why would you not give us the opportunity to see them? I am sorry, I just don't understand.

If it is a workload issue, I mean, if it takes time, I sort of understand. But you seem to be objecting simply on the basis that he is asking for something that wasn't done. Of course if it was done, he wouldn't need to ask for it. So that seems --

J. SILVER: I think, Mr. Garner, Mr. Dane explained that in his analysis, it is not a relevant portion of the analysis based on how he has modelled.

M. GARNER: I understand that. So maybe I can ask Mr. Dane a question if Mr. Gluck doesn't mind.

Mr. Dane, would it be --

J. SILVER: Well, I think --

M. GARNER: -- onerous to do this? I am just asking that question. Is it onerous to do this?

J. SILVER: Yeah. Mr. Garner, I think before you ask a question, I think Mr. Gluck and I were in an exchange about an undertaking that we were offering, and I would first like Mr. Gluck to confirm whether -- like, let's --

M. GARNER: Certainly --

J. SILVER: -- first -- let's first --

M. GARNER: -- let Mr. Gluck finish.

J. SILVER: Let's first settle on that undertaking, and then if you would like to ask a question to Mr. Dane, you may.

But I guess, Mr. Gluck, just to step back, we were offering to undertake to explain -- I think there was a detailed discussion about the analysis here and Mr. Dane's approach, and I think we will undertake to provide a written explanation as to why he has done the calculation this way and why he -- you know, for the reasons he has explained, but he can provide a more detailed explanation of how this works in relation to CCR.

L. GLUCK: Sure, thank you.

M. MILLAR: So we will mark that as JT-6.3.

UNDERTAKING JT-6.3: Provide a written explanation as to how the calculation in column "g" in C1-CCC-26, Attachment 1 works in relation to CCR

M. MILLAR: And, Mr. Gluck, I am not sure where to take it from here. I know Mr. Garner had a follow-up question. Does that satisfy your undertaking, or is that a nice-to-have but not what you were actually seeking?

L. GLUCK: It is a nice-to-have, and I would appreciate that explanation because that is -- as Mr. Silver said, we did have a very detailed conversation, so it would be helpful to better understand.

But my request for the run of a pro forma with CCR is still there. I think it would be of assistance to understand the implications for the credit metric ratios the introduction of concurrent cost recovery for OPG.

J. SILVER: And I think you have our refusal. And I expect that in the undertaking that we will provide, they will provide an explanation as to why that is an inappropriate and irrelevant part of the analysis.

M. MILLAR: Mr. Garner, does that help you as well? Not that --

M. GARNER: It doesn't answer the question I have.

I have a question to Mr. Dane, is -- is that an onerous task to do that, to do what Mr. Gluck has asked you to do? Whether you do it or not, I just want to understand -- is -- it would seem simple enough to me, but maybe I am incorrect.

J. SILVER: I guess, Mr. Garner, the refusal is not on the basis of burden. The refusal is on the basis of relevance and it being an inappropriate analysis.

M. GARNER: That is fine. That is fine. I am still asking the question to Mr. Dane. Is it an onerous --

J. SILVER: But the question -- but the question is --

M. GARNER: -- the question.
J. SILVER: But you are asking whether something that is irrelevant is onerous, which in and of itself is irrelevant, so --
M. GARNER: I am sorry, it isn't. I would still put question to Mr. Dane.
Are you refusing to answer the question of whether it is an onerous exercise to do this? Is that what you are saying?
D. DANE: Was that to me, Mr. Garner?
M. GARNER: Yes. It may be still a refusal about doing it, I just don't understand the workload to do this, Mr. Dane. I don't really understand it.
J. SILVER: I think, Mr. Garner, you have our refusal of that question on the basis that if the analysis that you are asking about, onerousness, is irrelevant, then the question of whether or not it is onerous is also irrelevant.
M. MILLAR: Okay. I think we have a refusal here, so I am going to suggest that we move on.
M. GARNER: Yeah. Thank you.
M. MILLAR: Mr. Gluck.
L. GLUCK: Thank you.
I will move to another area. If we can open the Concentric report at page 62, please. Thank you.
And on page 62 of your report, you cite the OEB's findings that state that:
"The use of U.S. regulated-utility data as

equivalent to Canadian-regulated utility data
in any computation is questionable." [as read]

Is that right?

D. DANE: I am sorry, Mr. Gluck, were you --

L. GLUCK: I am just --

D. DANE: -- yeah. So can you restate.

L. GLUCK: Sure.

"The use of U.S.-regulated utility data as
equivalent to Canadian-regulated utility data
in any computation is questionable." [as read]

Did the Board say that?

D. DANE: They did.

L. GLUCK: Thank you.

And in order to address this finding on page 64 of the Concentric report, you note that you added Emera, Fortis, and Algonquin to the proxy group to ensure that the peer group includes at least a minimal number of Canadian utilities even though utilities do not pass the screening criteria; is that fair?

D. DANE: It is. And you said page 64. I think you were referring to page 65 of 109, which is the next one down.

L. GLUCK: Oh, okay. Apologies.

And do you agree that the vast majority of Concentric's peer group continues to be made up of U.S. companies?

D. DANE: Yes. It is 15 of 18.

L. GLUCK: Okay. Thank you.

And if we could go to C1-Staff-53, please. And in response to Part A, Concentric provides its views on why only publicly-traded companies should form part of the peer group.

And the response speaks to the requirement for observable market data and the availability of consistent data across companies, which is what supports the use of publicly-traded companies in the peer group. Is that a fair summary of this response?

D. DANE: Yes.

L. GLUCK: And if we could go to C1-CCC-30, Attachment 1, which is an Excel spreadsheet. And with respect to the screening criteria that is shown in this table, my understanding as to what you need to be able to apply it is you need data regarding the credit rating, whether the generation assets are included in rate base, a percentage of generation assets that are hydro or nuclear, and a couple other things that are in here as well.

Is that fair? That is the kind of information you need to do the screening?

D. DANE: It is the kind of information with that threshold issue we just discussed about being publicly-traded company.

L. GLUCK: Okay. And would you agree that all the information that you use in your screening is available for non-publicly-traded companies?

D. DANE: I mean, that is a very broad group of companies, so it may be for some, not for others.

L. GLUCK: I apologize. For large Canadian utilities?

D. DANE: So for these categories here, subject to check, I would expect them to be available. Maybe not in all cases.

L. GLUCK: Okay. Thank you.

And so you have -- you know, in most cases, at least, you would have the screening criteria available. And then the way your peer group -- you know, how you are determining the average of the capital structure is essentially just looking at authorized ratios; is that right?

D. DANE: That is part of it. We also look at actual capital structures.

L. GLUCK: Sure. And would you agree that that information, authorized equity -- authorized capital structures is available for large Canadian utilities that are regulated? Would that be fair?

D. DANE: To the extent that that is a component of their regulated and authorized revenue requirement, then I would expect so.

L. GLUCK: So can you help me, what would be the -- what is the problem with including companies, large Canadian utilities like OPG, that are not publicly traded, in the peer group? Assuming the screening information is available and authorized equity ratios are available.

D. DANE: The problem, Mr. Gluck -- and I am -- we discussed this in part in a different interrogatory. I apologize. I am just trying to find that response.

So subject to -- it is in the interrogatories at some point. But just to describe, to move us along, there is a few issues. One is that we have used a credit metric screen here and for -- you said publicly -- or you said non-publicly-traded Canadian utilities, so I assume you are referring to Crown corporations. And in those cases, the credit rating is either directly linked to the province or the -- the Crown Corp doesn't issue its own debt; rather, it is issued through the province.

And for the authorized equity ratios -- and I should say that this was an issue that was raised in the Christensen report, so I am -- which I am still evaluating. But based on that preliminary evaluation, some of those authorized equity ratios are not set using a standalone -- the standalone principle, which is a fundamental core principle that the Board applies for OPG and other Ontario utilities.

And so while you could walk through this schedule and populate it with -- or if you were to look at this schedule from those non-publicly-traded companies, they might meet some of these screens. I haven't done that analysis. At the end of the day, the equity ratio would be fundamentally incomparable to what we are trying to accomplish here.

L. GLUCK: And could you explain that? Why would that be the case?

D. DANE: As I just described, if the equity ratio is either not reflective of standalone -- or is reflective of either provincial -- directly linked to provincial ownership or if the province is issuing debt on behalf of the utility or if the authorized equity ratio is not subject to the same core regulatory principles that we are applying here.

And by that, I am focused on the standalone principle as well as elements of the fair return standard, then even a company that would appear to match these criteria would be fundamentally incomparable at the end of the day for establishing a deemed equity ratio consistent with the OEB's approach.

L. GLUCK: So on a higher level, are you suggesting that OPG is less like, you know, a Crown corporation than one of the -- one of the U.S. firms in your peer group that isn't owned by the government?

D. DANE: And this is an important point. So for purposes of establishing -- for my analysis, for establishing a fair return standard based equity thickness for OPG. That is based on the standalone principle and capital structure, and cost of capital is as applied by regulators, also consistent with corporate finance principles, is based on the opportunity cost of capital and market-based data.

And for that, we look to publicly-traded companies with similar risk profiles as screened through this analysis.

L. GLUCK: Okay. Thank you.

Can I ask you -- I hope this is a relatively easy undertaking. There was something that I noticed when I was going through the peer group. Is it possible for you to add OPG -- OPG itself to the list of companies in the proxy group screening and just run it -- you know, add a line in the table that is on the screen now showing OPG so it is comparable to everyone else in there?

D. DANE: Yes, I could do that.

L. GLUCK: Thank you.

M. MILLAR: That will be JT-6.4.

UNDERTAKING JT-6.4: Add OPG to the list of companies in the proxy group screening at C1-CCC-30, Attachment 1, and add a line showing OPG so it is comparable to everyone else

L. GLUCK: And I want to briefly discuss PG&E Corporation, and here it is in -- it is in the table we are looking at on the screen at line 32. It was screened out because its credit rating is BB and the proportion of regulated electric revenue and income is below the 80 percent threshold; is that correct?

D. DANE: Could we scroll over to the right, please? I have lost the company now.

L. GLUCK: It was line 32.

D. DANE: PG&E did not make our minimum credit rating screen, and it did not meet the regulated electric revenue as a percent of total regulated revenue screens.

L. GLUCK: Thank you.

And regarding the credit worthiness of PG&E, with a credit rating at BB, this is considered by investors to be a speculative as opposed to investment-grade credit rating; is that right?

D. DANE: Yes.

L. GLUCK: And OPG at BBB plus is well above the threshold for investment grade; is that right?

D. DANE: Yes. That is -- that is an investment-grade rating.

L. GLUCK: Thank you.

So -- you would agree -- I guess I am asking, would you agree that PG&E is considered to be a more risky investment than OPG?

D. DANE: Certainly from a debt investor's perspective, as we just discussed, with that difference in credit ratings.

L. GLUCK: Okay.

And can we go to CCC-30, Attachment 5, please. And here you will see at line 16 that PG&E has an authorized equity ratio of 52 percent; is that right?

D. DANE: Yes.

L. GLUCK: And 52 percent is the minimum equity ratio that you are recommending -- or that Concentric is recommending for OPG?

D. DANE: It is, yes.

L. GLUCK: And can you help me understand why Concentric believes that OPG should have an equity thickness that is no lower than PG&E's equity thickness?

D. DANE: So -- and this is -- by way of answering, I will describe the approach we used, and that is to develop a proxy group of comparable companies, and from there, to derive a range of equity thicknesses from which we can draw conclusions about where OPG's equity thickness would reasonably fall.

And so in developing a proxy group, we deliberately don't look at one company. It is a group of companies. And understanding that any one company may have anomalous or individual circumstances that put it in one place versus another, but that is why we use a proxy group company.

So it is not to do a one-to-one analysis between OPG and a company -- and this one, as we just discussed, isn't even in our proxy group -- but rather, to draw some inferences based on the range of results and the comparative risk analysis of OPG compared to the proxy group as a whole.

L. GLUCK: Okay. Thank you.

Could we go to CCC-31, Attachment 2, please. And essentially, what is being done in this, just to set the context, my understanding of what is being shown in this Attachment 2 was Concentric recalculating the authorized equity ratios of operating subsidiaries where those authorized equity ratios were -- are impacted by zero cost of capital items; is that fair?

D. DANE: Yes, that is correct.

L. GLUCK: Thank you.

And can we just go to the support tab, please. I am just trying to understand how you did the calculation. So if we look at Entergy Arkansas, which I think is a little bit below there, it looks to me like you summed the long-term debt and common equity and then divided that total by the common equity portion to determine the equity thickness; is that right?

D. DANE: I am not sure I followed your question, so I will state what this does.

L. GLUCK: Sure.

D. DANE: So this adds up -- this isolates the financial -- the long-term financial capital structure components for Entergy, specifically its Arkansas operations, and it then divides the equity portion into the total financial capitalization.

L. GLUCK: Thank you.

And I have a question about two items that I see that are -- that didn't end up forming part of the -- the revised or fixed equity thickness, and that is the DOE obligation and the customer deposits. You can see that in the supporting table to the right. Can you just explain why those wouldn't flow in?

D. DANE: Those are not part of the long-term investor-provided capital structure.

L. GLUCK: Okay.

Can we -- I am going to switch topics here. Can we go to CCC-28, Part A, please. And in this response, Concentric states that OPG faces revenue risk related to nuclear output variability, and in contrast, the companies in Concentric's peer group are vertically integrated companies, and they don't experience -- generate variability in the same way.

Is that a fair summary of the response to Part A here?

D. DANE: Yes, that is fair.

L. GLUCK: Thank you.

And I want to better understand how these vertically integrated U.S. companies experience revenue risk. So can you -- you know, starting with the rate setting approach, can you explain how the rates are set for a vertically integrated U.S. company that may form part of your peer group or does form part of your peer group?

D. DANE: Sure. And I describe that up above in this response where the response says:

"The recovery on and of generation assets is generally established through base rates or riders while fuel costs including purchase power and replacement power when generating units are unavailable are recovered through electric fuel recovery mechanisms." [as read]

L. GLUCK: Okay.

If I were to try and go -- I don't know if this is higher level or deeper. I am not really sure. But essentially, it is not dissimilar to the setting of rates in Ontario generally?

Like, they set a revenue requirement based on a forecast of cost, and that is at the higher level. That is the numerator in the calculation. And then the denominator is a forecast of -- for these vertically integrated companies is a forecast of load; is that fair?

D. DANE: Yes. End use load for customers.

L. GLUCK: Okay. Thank you.

And essentially, what I think you are explaining -- or explaining in this response is that OPG takes production forecast risk, and the vertically integrated companies take demand forecast risk; is that right?

D. DANE: I think your question oversimplifies the approach used for the vertically integrated utilities. And as we mention in this second paragraph of this part of the response, many of the utilities also have revenue decoupling mechanisms, and so that mitigates risk around customer usage and demand.

L. GLUCK: Sure. And we will talk about the decoupling mechanisms in a moment because I want to better understand those as well. But I am not sure that I did oversimplify.

It is -- if you really boil it down, OPG is going to -- in this proceeding, OPG is forecasting its cost, and it is forecasting its production. And on the cost side, let's -- all else being equal, if they come in dollar for dollar, then the only risk left that we are talking about in the context of this response is whether the production forecast is lower or higher; is that fair? In the production risk.

D. DANE: I am not sure if this is what you are saying, Mr. Gluck, but I would say that if the plants don't run as forecasted, then that would impact the recovery of cost by OPG.

L. GLUCK: Fair.

D. DANE: Yeah.

L. GLUCK: And the vertically integrated companies, they are taking demand risk, and if their customer forecast is wrong or their volumetric forecast is wrong, then they're at risk for that. If it comes in low, then they won't recover their entire revenue requirement; is that right?

D. DANE: No. Not as a class of companies, and that is the -- that is the -- where decoupling comes into the equation.

L. GLUCK: Okay. Ignoring decoupling for a second, is that correct? Because we are going to talk about the decoupling mechanisms in a moment. But if there was no decoupling mechanism, is what I said correct, that they would take -- if their customer addition forecast and their volumetric forecast per customer was wrong, low, then they would not recover their revenue requirement entirely?

D. DANE: I am not totally sure I understand your question, but I can offer that in an -- in an isolated scenario where there is no -- I will call it downstream protection around variability and usage, then a utility would be at that risk related to that -- that usage.

L. GLUCK: Okay. Thank you.

If we could go to CCC-32, please. And if we go to page 2 of this response, in this list here, there is a discussion of partial and full decoupling, and my understanding of the definition here is that there are three main types of partial decoupling mechanisms: one is for changes in sale revenues related to energy -- energy efficiency uptake. There is another one for changes in sale revenues related to weather. And there is one decoupling mechanism for changes in sales revenues related to economic conditions. Are those the three main types of partial decoupling mechanisms?

D. DANE: Yes.

L. GLUCK: Thank you.

And if we go to CCC-32, Attachment 1, please. If we go to the bottom here, there is going to be percentages. I guess it is in the chart -- or in the table next to the chart. So about half the peer group has partial decoupling mechanisms, and 8 percent has full decoupling; is that fair?

D. DANE: Yes.

L. GLUCK: So going back to what we just talked about, for at least half the peer group, they don't have any decoupling, what we talked about, that they take full demand risk if they are wrong, their demand forecast is wrong. They take -- they take the entire revenue -- sales revenue risk of that; is that fair?

D. DANE: There may be elements I am not thinking of, but if we isolate it to -- to the impacts of decoupling as they don't have decoupling, they wouldn't be protected in the same way the companies that have decoupling are.

L. GLUCK: Thank you.

And could I ask you, do you view -- does Concentric view OPG's production risk as higher -- or riskier, I guess, is probably the right word, relative to the demand risk faced by the peer companies that have no decoupling mechanism?

D. DANE: That is not analysis I have done in that way. I would say that the impact of OPG being at risk for variability of generation can be substantial, and we have some analyses in our report that demonstrate the impact of that in terms of the concentration of that risk for OPG, whereas for the proxy companies, to the extent that they face risk related to usage, that risk is much more diversified for them and not subject to that -- that same concentration risk. And that is why you will see -- and I, like, don't have it at my fingertips, but at least one of the credit rating agencies highlights this exact risk for OPG and contrasts it to other companies.

L. GLUCK: Okay. Thank you.

And I don't really have a reference for this. It is more of a high-level question for you. I want to talk about a potential mechanism that was not proposed by OPG and get your views on its implications for OPG's risk. If an account, a deferral account, were to be established to symmetrically true up nuclear fuel costs between forecast and actual, would that have a material positive effect on OPG's risk? And when I say, "positive," I mean decreasing risk.

J. SILVER: I think, Mr. Gluck, just help me understand the relevance of this question. You are asking about something that OPG has not proposed, so it seems not to be relevant to the analysis Mr. Dane undertook.

L. GLUCK: I mean, OPG used to have this account, so it is not really a brand new idea. Many of the utilities in Mr. Dane's peer group have this mechanism where nuclear fuel is trued up. So I think Mr. Dane may have some insight into the implications of risk of a nuclear fuel true up account. It is not particularly an out there idea, I would say.

J. SILVER: I think it is not about whether it is out there. It is about whether it is relevant to this application and the scope of his opinion. And given that it is not something that has been suggested or proposed, it is -- it has no relevance to Mr. Dane's opinion on the matter.

L. GLUCK: Okay. Maybe I will try it this way: Mr. Dane, do peer groups -- do companies in your peer group have nuclear fuel true up -- nuclear fuel-related true up accounts?

D. DANE: I don't have a reason to believe they don't. I don't know off the top of my head, though.

L. GLUCK: I think it says 100 percent of them have an electric fuel recovery mechanism. In the table on the screen. And I think that probably is speaking to some either price or volume true up of the input fuel for generation.

D. DANE: I think that is fair.

L. GLUCK: Okay. Does that reduce risk?

D. DANE: For these companies, yes. It is one of -- it is a risk-reducing element of their rate framework.

L. GLUCK: And would it reduce OPG's risk?

J. SILVER: I think we have --

L. GLUCK: Okay.

J. SILVER: I think you have -- I think you have our position on that question.

L. GLUCK: Thank you.

Can we go to CCC-28, Part D, please.

D. DANE: Did you say 28?

L. GLUCK: Twenty-eight, yes. And this is my last question. Thank you.

This response discusses that nuclear operators in the U.S. carry business interruption insurance, and therefore, OPG's purchase of this type of insurance would bring OPG into greater alignment with the other companies in the proxy group. Is that a fair summary?

D. DANE: Yes.

L. GLUCK: And I just want to make sure that I understand Concentric's view on the impact of the purchase of nuclear business interruption insurance on OPG's risk.

So in the context that OPG did not have this type of insurance in the past and will have this type of insurance in the upcoming rate term, would you agree that it has reduced the company's risk over time? Basically, two points in time. In your last study, this insurance -- OPG did not have this insurance, and now it does have this insurance. Does that reduce the company's risk?

D. DANE: I would say that, overall, OPG is -- it is still at risk for variability. This insurance is a tool it can use to mitigate that risk. So it does have risk-reducing elements to it. As we see in the response, there is weighting period, there is caps, et cetera. But all else equal, it does have some downward effect.

L. GLUCK: That is great. Thank you. I appreciate all the responses.

D. DANE: Sure.

M. MILLAR: Mr. Gluck, are those all your questions?

L. GLUCK: Those are all my questions. Thank you, Mr. Millar.

M. MILLAR: Great. Okay. So we are at 12:20 now, so I think we can safely take our lunch break. We have -- Mr. Walker, I think you are up next. Will you be ready to go at 1:20?

S. WALKER: I will, Mr. Millar.

M. MILLAR: Okay. Unless anyone has anything else right now, let's take our lunch break, and I will see you at 1:20.

--- Upon recessing at 12:22 p.m.

--- Upon resuming at 1:19 p.m.

M. MILLAR: And we are continuing the questions for Mr. Dane. And unless there are any preliminary matters, I will turn it over to you, Mr. Walker.

CROSS-EXAMINATION BY S. WALKER (OAPPA):

S. WALKER: Thank you, Mr. Millar.

Good afternoon, Mr. Dane, everyone. I know you missed the role call this morning, Mr. Dane. My name is Scott Walker. I am the consult to Ontario's universities in this proceeding. Thank you for being here, and thank you for your indulgence today with our additional questions.

D. DANE: Good afternoon.

S. WALKER: Even though we might -- sorry?

D. DANE: Good afternoon.

S. WALKER: Thank you.

Even though we might disagree with your recommendations, and I wish it had been a little broader in scope, I thought your study on common equity ratio was well done.

Mr. Gluck asked a bunch of questions, and even though we had collaborated, I think he has probably managed to allow me to scale back on my questions, so hopefully I will be done well under time and can give you back some, Mr. Millar.

My questions today principally concern three aspects of the report that, one, confused me, which, in my defence, is because it is rather complex material, or, two, that were omitted for reasons I couldn't immediately discern from the report or, three, that involved your quantification of certain risks. I identify those three areas because I kind of basically want to follow the chronology of your report.

So for visual reference, can I ask that we bring up Exhibit C1, Tab 1, Schedule 1, Attachment 1, page 13. That is the stamp number up in the top right-hand corner. And go to the bottom of the page and just reference these last two lines of text.

I believe your conversation with Mr. Gluck confirmed that, you know, the comparative set is publicly-traded companies, so I am assuming that is correct?

D. DANE: Yes.

S. WALKER: Are there any municipally-owned or other government-owned generating companies that exist in the United States?

D. DANE: There are.

S. WALKER: Are any of those nuclear?

D. DANE: The Tennessee Valley Authority is a government-owned utility in that while it is not a -- it doesn't only operate nuclear generation, it does operate nuclear generation.

S. WALKER: Okay. And why did you exclude, well, TVA as an example, but other municipally-owned generating stations? Is that because they didn't meet the criteria of your scope?

D. DANE: Right. They are not publicly traded which was a -- as I described with Mr. Gluck, was a threshold consideration.

I also received a question from Energy Probe similar to your question, Mr. Walker, so I am going to refer to that. So it is Energy Probe 16. And there, among other factors, I described how TVA does not have an authorized equity ratio. Its board has sole responsibility for establishing its rates. It doesn't have deferral and variance accounts. It is not subject to the prudent investment standard. And there are some other things in there, but that is the gist of it.

S. WALKER: Thank you. I will read those and better edify myself. Thank you.

You made a comment to Mr. Gluck this morning that said you excluded non-publicly-traded companies from your analysis because the debt-to-equity ratio was so out of proportion to those that were traded. Did I catch that correctly?

D. DANE: It wasn't so much a matter of proportionality, as you said in your question. It was more in reference to how those equity ratios are established.

S. WALKER: Can you elaborate?

D. DANE: Sure. So -- and these are examples, but for instance, a number of the Crown corporations -- Crown corporation utilities in Canada, they have a directly linked credit rating that is directly linked to the province.

In some instance, they don't issue their own debt. And their equity ratio in -- for regulatory purposes may be set, for instance, based on their actual equity ratio, which is not the case for OPG. So those are examples.

S. WALKER: Okay. Okay. Is it generally true that a non-publicly-traded company or municipally-owned generating company or utility company tends to put less emphasis on their debt-to-equity ratio than, say, your sample set did?

D. DANE: Can you just describe what you mean by "emphasis"?

S. WALKER: You know, they wouldn't be so worried about, you know, how much is equity, how much is debt per se. It would be what it is, right.

D. DANE: I can't speak to what they worry about. I do think it would be capitalization and sources of financing may be important to them. So I wouldn't agree with your characterization.

S. WALKER: Fair enough. I mean, you obviously understand why we are concerned with a higher equity-to-debt ratio. It raises the rates for consumers, of course, with the higher than the 45/55 split, right.

So, I mean, I would imagine that most government entities are concerned with -- utility entities are concerned with keeping the rates down, and that would tend to kind of suppress the debt-to-equity ratios in general. Is that a fair assessment?

D. DANE: I can't agree with that, Mr. Walker. I think -- as I said, Christensen did include some Crown corporations in its report. I am still evaluating those. I did not include those companies, so still evaluating Christensen's position.

And the reason I am not agreeing is that here where we are looking at a fair return standard analysis to establish a deemed capital structure consistent with the OEB's methodology that lends itself to the analysis that I have done, whereas for municipally owned or Crown corporation utility where its rates are based on its actual capital structure there, it is not the same lever, if you will, from a rate making perspective.

S. WALKER: Right. And so it is -- fundamentally, the reason you left out the government-owned Canadian companies is because of that, it wasn't for a lack of having data or information available to you; is that true?

D. DANE: That is a large part of it. And an important part as well is that I would not describe their capitalization for purposes of what is actually on their books, which is part of our analysis or what may be incorporated into their revenue requirement, I wouldn't describe that as market tested.

S. WALKER: Yeah. I would probably agree with that too. Thank you.

Could we please move to page 14, and the last sentence in the second paragraph which starts "on this latter point." And I know you had a dialogue this morning with Mr. Gluck about it, and you provided a response in C1-CCC-028, but I am still having -- I just need a minute to kind of reconcile this.

You talk about nuclear output variability and I -- you know, maybe it is just this mindset that I have, but nuclear is on or it is off in your context here. What are you -- can you again explain to me what nuclear output variability means?

D. DANE: It means variability in the output of the nuclear stations compared to what is reflected in OPG's rate plan.

S. WALKER: That is no different than any other generator or any other entity that is subject to regulation under rates, is it?

D. DANE: I do think it is different. As we noted in one of our discovery responses, and maybe it is the one you just referred to, for -- in terms of generation variability, the proxy group companies are all vertically integrated, which means that they have transmission and distribution operations as well, and so their rates are set based on -- are set at the distribution or transmission level.

So variability in generation output would be, for instance, if they had to purchase power from other source or something like that, would be flowed through a power cost adjustment or fuel cost adjustment type mechanism.

And downstream of that for -- at the distribution level, a few things. One as I described for -- in response to Mr. Gluck that is a more diffused risk. It is not as concentrated as it would be in the instance of OPG. And the proxy group companies also -- or many of the proxy group companies also have the benefit of what is called decoupling, which gives them protection against variations in usage.

S. WALKER: Right. Right. I garnered a lot from your conversation with Mr. Gluck this morning.

Is it fair to say, I mean, in your revenue risk assessment of OPG, that you are aware that OPG commits to a production schedule in these proceedings, and that includes all of their plans outages, some margin of error? Is that -- is that true?

D. DANE: I think that is generally fair.

S. WALKER: Okay. Thank you.

So if I could draw your attention to Figure 1 here. I am sorry. Maybe I didn't spend enough time with this. What differentiates actual from authorized?

D. DANE: Actual reflects actual capital structures for the companies in the proxy group at the operating company level, rolled up to the parent company level. Authorized is similar to what we are describing here for OPG. It is the capital structure that is authorized by the regulator for inclusion or reflection in the revenue requirement.

S. WALKER: So a generalization here, but then the actual number would include all the other businesses that that company might be in, and you described a vertically integrated company. It would include the transmission, the distribution. If we were talking about OPG, it would include their fossil fuel, their U.S. holdings, et cetera. Is that fair?

D. DANE: In part. But I think the important clarification is that we measured the actual capital structures at the operating utility level -- at the operating utility company level.

So, for example, NextEra is our proxy group. They have a holding company that owns Florida Power & Light and some other state jurisdictional utilities. Power analysis measures the actual capital structures for those state-level regulated utilities.

S. WALKER: Okay. Thank you.

I think in your conversation with Mr. Gluck this morning, you confirmed that OPG was not included in your peer group study. Why did you not include them?

D. DANE: That is a practice that is generally applied by cost of capital experts for a few reasons; one is -- and this is the case for OPG where the subject company is not publicly traded -- it doesn't meet that threshold screen; and also there is a certain circularity involved in including the subject company in your analysis; and, thirdly, there can be anomalous events or circumstances that make that equity ratio unrepresentative, or even more broadly, cost of capital, not -- there can be anomalous events affecting it.

S. WALKER: Yeah, okay. Understood.

It would also broadly serve to lower the overall average too, would it not, based on its current 45/55 split?

D. DANE: The 45 percent, as we have commented in the report, is below the mean and median of our report, but the -- so, yes, it -- mathematically, that would happen.

S. WALKER: Right. Okay. Yeah, thank you.

Could we please move to page 19 where you discuss the standalone principle as a subpart of Section 3, which addresses the need for fair return. So I guess where I was struggling a little bit with this was would not all the market risk associated with the capital that is being borrowed not simply be baked into the company's borrowing rates?

D. DANE: When you say "the company," are you referring to the proxy companies?

S. WALKER: Yeah, I mean, anybody that is actually borrowing funds from the broader market. I mean, their -- isn't their borrowing rate going to reflect all of the risks that the investors necessarily see in that? So isn't -- isn't a riskier company necessarily going to have higher borrowing rates as a consequence?

D. DANE: There is a lot that goes into borrowing rates, and so I think as a general premise, they can be affected by economic conditions, timing, et cetera. But the -- yes, the borrowing rate or the cost of debt that the company actually bears will reflect the -- what is required from the market to the extent that their debt is issued in the market.

S. WALKER: Right. Okay. That makes sense to me. Thank you.

You make reference for the need to increase return on equity on the next page where the amount of debt itself increases. Maybe we could actually go to that, page 20, top of the page, third line down, the line that begins with:

> "As debt obligations increase, the equity buffer unencumbered earnings available to a shareholder narrows, and the required equity return increases to compensate investors." [as read]

This one stumped me. Can you please dummy it down, the logic, and explain it to me in layman's terms?

D. DANE: From the perspective of the overall capitalization that is made up of debt and equity, and equity investors have -- or debt investors have senior -- seniority in terms of their return on invested capital and return of capital. And those costs tend to be fixed in nature over the term of borrowing.

Equity investors have residual risk and -- meaning all the risks remaining because of their place in the waterfall for return on enough capital. And so as that first piece, the debt portion increases more of the funds. More of the cash flow of the company is used to return money to debt investors, leaving less of a cushion to support that residual equity ownership.

S. WALKER: I may have that. Okay. Thank you.

But if the entire asset complex is increasing, effectively raising the book value and the revenue that is being required from ratepayers because it is a regulated entity, does the company still not earn more profit in total -- you know, what do we got, an ROE of 9.11 for this term as proposed -- than it did prior to the investment or the projects being made?

D. DANE: Well, I am going to answer it this way: And so the -- what I am measuring in my study is the cost of capital, and that is a percentage.

Here under the OEB's approach, we focus on the equity ratio. Of course, the ROE percentage, the 9.11 you mentioned, does impact the return to shareholders.

But that return set according to the fair return standard measures the opportunity cost of those funds, and it is based on a -- it is a -- it is a percentage basis to reflect the relative risk of the investment. So I am not measuring dollars in the way that you described. It is -- we are measuring a risk-appropriate capital structure and return.

S. WALKER: Right. Right. I mean, the math just makes sense. If you have a $100 investment or $100,000 investment, you make more from the $100,000 investment than you do from the $100 investment. So I -- yeah, okay. I respect what you've just said. Thank you.

Can we turn our attention to the company's business and financial risks. Maybe we can move down the screen to page 26, mid-page, second paragraph, last sentence, about the fourth line up from the bottom with the sentence that begins with:

> "Likewise, once the BRP is completed --" [as read]

You can see that there on both the Pickering and:

> "-- are fully back in -- OPG's nuclear output will increase, yet, at that point, assuming successful completion of the BRP, none of

today's key risks will be behind the company."
[as read]

"One of." Excuse me. I misspoke.

So if the BRP is not going to be completed during the current IR period, why do you think ratepayers should be assuming the cost of this additional rate payment as suggested by a change in the debt to equity ratio for the next five years?

D. DANE: Mr. Walker, you said, "BRP." It is the PRP.

S. WALKER: Oh, I am sorry. Yeah, the Pickering refurbishment.

D. DANE: And the cost of capital is -- it is a forward-looking concept. It reflects risks today as well as future perceived risks by investors, opportunity costs, market conditions, subsets of things. So some of the key risks to OPG at this time relate to the Pickering refurbishment.

And so the point being made here is that once that -- once that is complete, at least the risks related directly to refurbishment will be behind the company and wouldn't have the same impact on cost of capital that they have today. And so it is really a matching of the risk with the return.

S. WALKER: So you are -- you are bringing forward future risk into the next five years. How have you factored in the fact that, you know, in the next IR term, the risk goes away? You know, it is now zero. It has been a successful project.

Does that also factor into your risk assessment, even though that is not in the next five years; that is in the next six- to ten-year period?

D. DANE: So there were a couple of questions in there, Mr. Walker.

S. WALKER: Maybe. I apologize.

D. DANE: No, that's fine. But just one comment, and then I will maybe ask you to break it down a bit. But your first comment about -- I think you said something like we are bringing forward risk. That is not what I said. So to clarify, we are reflecting risks from today forward.

S. WALKER: Okay.

D. DANE: And so I will ask you if you could ask the question again.

S. WALKER: Okay. So your forward-looking viewpoint today on risk is that over the next 5 years, there is risks that the BRP will go off track -- that a -- that a -- I keep saying, "B." Excuse me -- the Pickering refurbishment will go off track, and so there is risk associated with that, and so you are baking it into a perspective.

And yet when we fast-forward 5 years from now, much of that risk is gone. And so why are we even -- why are we having the conversation about a risk that is being applied to this current period when it goes away -- I mean, and/or -- sorry. That is maybe a double-sided question.

How is it just not zero if it goes away in 5 years anyway?

J. SILVER: I think just maybe if you could help clarify for me, Mr. Walker, are you asking about what happens outside of this rate period?

I think -- because you are asking -- Mr. Dane has explained, I think, in the last answer that he is talking about the risks over the next 5 years, and I think are you asking about risks beyond the next 5 years?

S. WALKER: Well, that is a fair clarification, Mr. Silver. I guess when Mr. Dane suggested he was looking at the future risk, is that constrained within the next 5 years, Mr. Dane? Perhaps that is a more appropriate question.

J. SILVER: I think -- I will -- Mr. Dane, go ahead.

D. DANE: Sure. It is not constrained. The cost of capital is a forward-looking concept. Nearer-term risks do tend to have a larger impact on risk assessments. So something that is 30 years away will be discounted back today, and just through the time value of money, have less of an impact to the analysis.

But that is not to say that those risks don't exist. And from the perspective of OPG's rates application, it is a 5-year rates application, and equity thickness is a component of that that is assessed historically or at least for the last few cases on that five-year basis at that point in time.

S. WALKER: Okay.

I guess I am having a little bit of a disconnect when we are talking about the B -- I keep wanting to say, "B." Excuse me -- the Pickering refurbishment facility, and Mr. Gluck this morning was asking you, you know, we are -- we are baking in risk associated with the Pickering refurbishment unit in this 5-year term, but we are not considering that 2.9 billion in revenue that we are extracting from ratepayers concurrently. And I have a dissonance there, and I don't know if you can help me reconcile that.

D. DANE: Mr. Gluck's questioning was specific to a credit metric analysis and the reflection of CCR or concurrent cost recovery in that analysis, and we have an undertaking related to that. I do consider concurrent cost recovery as laid out in O. Reg 53/05 in my overall risk analysis for OPG. So I don't -- I don't know if you -- your question said it was ignored. It certainly wasn't. It is part of the analysis.

S. WALKER: Okay. Yeah. Thank you, Mr. Dane.

Could we please move to -- move the screen to page 33. Okay. You are discussing business operating risk in this section; correct?

D. DANE: So we would have to scroll down a bit.

Are you referring to section -- subsection 3?

S. WALKER: Oh, sorry. Yes.

D. DANE: Yeah. Yes.

S. WALKER: Okay. So when I -- when I read your description of the CapEx comparators to the peer group, you disclosed that you did not include the Darlington New Nuclear program. Boy, just addressing the big gorilla or elephant in the room, frankly, I was gobsmacked, and I really had to re-read the report to look for any Darlington New Nuclear program reference and an assessment impact. It is a new technology. It is a $6.5 billion budget, currently under construction, and expecting to be operating kind of in the final two years of this IR.

Am I correct that your analysis did not consider any DNNP risk in your report?

D. DANE: I did address this in the report, Mr. Walker. So the equity thickness that I am assessing is for OPG's prescribed facilities. DNNP is its own special purpose entity and was excluded from my analysis. That is not the focus of my study.

S. WALKER: Why not?

D. DANE: Because the equity thickness that I am opining on is to be used for the establishment of revenue requirements for OPG's non-DNNP-prescribed nuclear and hydroelectric facilities. And in approaching that analysis that way, I am applying the standalone principle and focusing on the risks of the assets subject to this portion of the application.

S. WALKER: I am definitely a little taken aback by that, Mr. Dane. I won't pretend not to be. If you were to include it in your analysis, would it change your common equity recommendation?

J. SILVER: I guess, Mr. Walker, just by way of reminder, the equity structure proposed for DNNP is included in the equity proposal for DNNP LP, not OPG. So I think -- you know, I think Mr. Dane -- I just -- so just by -- so the question you are asking actually is not consistent with the proposals that OPG and DNNP LP are making with respect to capital structure. There is a different proposal with respect to each entity.

S. WALKER: Different companies?

J. SILVER: Correct. Different companies, different applicants.

S. WALKER: But OPG is still funding the DNNP project?

J. SILVER: They are different prescribed generators, and Mr. Dane, the scope of his opinion is with respect to the OPG-prescribed assets.

S. WALKER: Mr. Silver, I wouldn't suggest that it is out of scope to ask Mr. Dane what his assessment would be if it was all combined.

J. SILVER: The regulation prescribes different assets to different entities. And so what you are asking, Mr. Walker, is for Mr. Dane to opine on how one generation -- one generator's assets would impact the capital structure of another generator's assets, which the regulation provides which generator is responsible for which asset. So with respect, it is a question that is inappropriate.

S. WALKER: I will leave it.

Can we move the screen to page 77 where you summarize your findings and conclusions. In consideration of your second paragraph that starts "to perform our evaluation." Thanks. Second paragraph there.

So I am pretty sure I understood this from Mr. Gluck's, but I wanted to emphasize this. You did not consider any of OPG's unregulated businesses in your assessments; correct?

D. DANE: That is correct.

S. WALKER: Okay. So it didn't include the fossil. It didn't include its extensive U.S. holdings. It didn't include the revenue -- other revenue businesses. Apparently it didn't include the Darlington New Nuclear Project program. True?

D. DANE: Yes, that is correct.

S. WALKER: Okay. I mean, I respect the fact, Mr. Dane, that you were given those constraints, so I -- however, you do reference credit rating agencies in your report that would probably have considered those other unregulated business assets as part of the overall thing. So would they not have factored all of those other aspects into their evaluation of their credit as you have referenced in your report?

D. DANE: So the credit rating agencies do analyze OPG at the corporate level. So to your question, that would include all of its holdings, including non-regulated, including DNNP.

For clarity, Mr. Walker, my reference to those reports is to gather evidence regarding investors' views on OPG and, specifically, its regulated assets, which are the focus of my report.

And as further clarification, which I may have stated with you or perhaps previously with Mr. Gluck, my focus is on the cost of equity. Of course, the credit rating agencies focus on debtholders' concerns. But with those clarifications, I agree that the ratings agencies consider the totality of the company.

S. WALKER: Okay. Thank you, Mr. Dane. I wouldn't have expected a different answer.

My final question is a bit of a doozy. Do you believe that there is any confiscation of capital, i.e., a transfer of wealth from OPG to ratepayers, occurring currently with the 45/55 split?

J. SILVER: I am going to jump in. Can you help me understand the -- are you asking for his personal opinion about -- I just don't -- can you help me understand how the question -- what you are asking him and how it relates to his opinion which is about the proposed capital structure of the company?

S. WALKER: On the issue of fairness, on the issue of appropriateness associated with, you know, debt to equity as it impacts a ratepayer's consequence, I want -- I mean, one of the premises that would be concerning for me both as a ratepayer, as a -- you know, and as a citizen of this province would be are we confiscating assets from the government which can use the money to do other sorts of things and transferring that wealth instead to ratepayers?

And I believe there is a measure of which that trip set happens. And so is that number less than 45 percent, or is it, as Mr. Dane has suggested, at 52 percent. And --

J. SILVER: And Mr. --

S. WALKER: Sorry.

J. SILVER: No. Mr. Walker, I think that is a question that is better left for argument. I think Mr. Dane's opinion is with respect to the fair return standard for the company. He hasn't -- it is beyond the scope of what he is opining on.

If you would like to make that -- take that position about the equity ratio in argument, you would be welcome to, but it is not an appropriate question for Mr. Dane.

S. WALKER: Yeah, I will concede that. I apologize, Mr. Silver, for going too far.

Mr. Dane, those are all my questions. Thank you for your time today, sir.

D. DANE: Thank you.

M. MILLAR: Thank you, Mr. Walker.

I think up next we have Ms. O'Connell from OEB Staff. I see she is there, so I will turn it over to her.

CROSS-EXAMINATION BY F. O'CONNELL (OEB):

F. O'CONNELL: Hello. My name is Fiona O'Connell, OEB Staff.

D. DANE: Hi.

F. O'CONNELL: Hello. If you could call up C1-SEC-033. And you will see on the next page, there is Chart 1 there, and basically that shows the OEB-approved ROE and the actual ROE for the years 2008 to 2026.

Staff notes that for the calendar years 2018 to 2025, OPG had over earned with one exception, the 2024 calendar year. And that is under the current equity thickness of 45 percent.

Could you please go to Exhibit A2, Tab 1, Schedule 1, Attachment 1. It was A2, Tab 1, Schedule 1, Attachment 1.

And in the first paragraph there, it describes OPG's financial results to September 30th, 2025, the nine months. And there is a huge increase, so 101 percent increase, for the nine months in 2025 to the nine months in 2024.

So my question -- my question to you, Mr. Dane, is did you consider these OPG's over earnings and strong financial performance in your analysis?

D. DANE: So, Ms. O'Connell, as I was just describing with Mr. Walker, my analysis is prospective in nature, focused on future risks. And so that is really at the heart of what I have evaluated for purposes of recommending an equity thickness for this going-forward rate period.

The prior response that we referred to, SEC-33, I think that was sponsored by the company, but I do think it is indicative of the variability in the company's returns. While the company has earned above its authorized ROE in some of these years, it has also earned significantly below. For instance, in 2024. That is suggestive of a significant swing in results.

And further, any earnings above the ROE are subject to the company's earnings sharing mechanism which is asymmetrical and -- but would share with customers in the event that OPG earns above a certain threshold for the entirety of its plan.

So I consider factors like that in terms of the analysis. But to the specific historical results, other than to understand the nature of them, again, my analysis is forward looking.

F. O'CONNELL: Okay. In that context, could you go to page 33 of 109 of your report, please. And go to Figure 9. Great.

So I know you just said you looked only at forward looking, but here is an example where you looked at historical versus forward looking, and you did a graph showing OPG versus the main peer group. So I guess I am just surprised that you didn't do something like this for either ROE percentages or net income or anything of that nature as well as adding a peer group mean.

D. DANE: So there were a couple of things in there, but just to take them as I heard them, so this chart is intended to focus on the projected period. We are anchored in history to give a perspective on the future CapEx for OPG as compared to the peer group.

And certainly under the regulatory framework, the assumption -- I don't have future actual returns for the company so I can't -- I can't do an analysis like what was done in SEC-33 on a forward-looking basis other than to understand what risks there exist for OPG related to earning its return and recovering cash flows.

And to the third part of your question, the median, it is -- the mean and median are both measures of centrality. The median will weed out, if you will, any extreme items in the sample. So it can be more meaningful to consider that.

F. O'CONNELL: I think it would be helpful to have, like, a similar sort of figure just showing ROE historical percentages. Not with 2022 starting at 100, but the actual ROE percentages of OPG versus the peer group median and the peer group mean for the years 2022 to 2025.

J. SILVER: Ms. O'Connell, are you asking for -- is this a request for an undertaking?

F. O'CONNELL: Yes.

J. SILVER: And I think Mr. Dane explained why, in his analysis, that metric was not relevant. So I am struggling to see the relevance of the undertaking in relation to this evidence.

F. O'CONNELL: I guess what I am trying to get at is the fact that OPG is a strong performer, and I couldn't see how their requested increase in equity thickness is related to that because basically, they -- OPG has been reporting really strong under 45 percent equity thickness. So what I was trying to get a sense of is how OPG did historically compared to its peer group median and mean.

J. SILVER: Yeah. I think Mr. Dane answered that that wasn't -- like, he explained that he didn't rely on -- he looked at it from a general sense to the variability but didn't -- but it is a forward-looking analysis, so I am still struggling to see what the relevance of that undertaking would be in relation to what Mr. Dane said was the scope of his opinion.

Because it doesn't -- you know, you have asked -- the request was made of the company to provide that information with respect to the company, but Mr. Dane didn't consider in his opinion this metric in relation to his analysis, so I am struggling -- I just -- I don't -- I am still struggling to see the relevance here.

F. O'CONNELL: Mr. Dane, do you have anything to add?

J. SILVER: I think Mr. Dane provided his answer on the relevance of that metric, and so I just -- I think we are -- at this point, we will refuse the request given that it is not within the scope of Mr. Dane's evidence. He didn't consider it with respect to the peer groups, and he only considered it in a general sense with respect to OPG.

F. O'CONNELL: Okay. Thank you. Those are my questions.

M. MILLAR: Thank you, Ms. O'Connell.

I think we have Energy Probe up next. Mr. Ladanyi, are you there?

CROSS-EXAMINATION BY T. LADANYI (ENERGY PROBE):

T. LADANYI: I am. Thank you. Good afternoon. My name is Tom Ladanyi, and I represent Energy Probe. And I want to say a special hello to Dan. We met years ago. I am glad to see you doing well.

D. DANE: Nice to see you, Mr. Ladanyi.

T. LADANYI: And, first, please turn to

Concentric's response to Energy Probe Number 19 interrogatory, which is Exhibit L, C1-EP-019. You have it there. Thank you.

I asked if you believed that OPG faces a greater cybersecurity risk than other utilities, and your answer was that it does not. Do I have that right?

D. DANE: Right. That was not a conclusion I reached.

T. LADANYI: As I read that answer, you essentially say that all utilities face increased cybersecurity risk. But in general, have utilities increased their protection from cyber attacks?

D. DANE: Yes, I would expect them to.

T. LADANYI: And if utility increased its protection from cyber attack, would its cybersecurity risk decrease?

D. DANE: Not as a class of risk, but certainly the programs or protections put in place would mitigate the specific risks that those programs are intended to address.

T. LADANYI: So in your analysis of risks facing utilities, do you include an assessment of what different utilities are doing to protect themselves from cyber attacks?

D. DANE: I did not include the analysis you have described. In reviewing OPG's risks, I identified that cybersecurity risk is an increasing risk. I understand there are mitigating steps being taken to address those risks. But for the industry overall, it is a source of increased risk.

T. LADANYI: So it is an overall -- you are essentially making a general conclusion, but there could be utilities out there who are spending a lot of money on this to protect themselves. You did not take that into consideration?

D. DANE: I would say I understand that they are spending money. This was part of our OPG analysis and -- to identify the risk. So I would say I understand that there has been steps taken. Importantly so. But that doesn't -- my conclusion remains that the overall risk has still increased.

T. LADANYI: Do you know what OPG is doing to protect itself from cyber attacks?

D. DANE: I am not familiar with the specifics of their cyber programs.

T. LADANYI: You never discussed it with them, did you?

D. DANE: Not that I recall, no.

T. LADANYI: You don't know, but, for example, if what OPG is doing is effective, would the cybersecurity risk decrease?

D. DANE: Again, I think the steps it is taking would -- which would be a prudent step that utilities are doing generally, would mitigate the risk, all else equal.

Of course, cyber attacks are becoming more sophisticated. There is plenty of material on that. And so in terms of a broader industry trend, I think there are steps that have been taken, but not to decrease the risk overall.

T. LADANYI: Because I think it might be unfair to OPG. OPG might be doing all kinds of things that some other utilities are not doing. I think you should be given credit for that, don't you think so?

J. SILVER: I think -- Mr. Ladanyi, I think that question about whether or not OPG should be given credit for any steps they are taking is not within Mr. Dane's expertise or relevance.

T. LADANYI: I wasn't thinking specifically of, like, a dollar amount. I was thinking a credit in -- essentially in equity ratio. There should be recognition in the equity ratio.

For example, Mr. Dane is recommending an increase in equity ratio from 45 percent to 53 percent. Perhaps if he knew what OPG is doing, he would actually, and saw 53 percent, recommend 51 percent. It seems reasonable to me.

D. DANE: And, Mr. Ladanyi, just to put this in perspective, this was one of the risks I identified, and my conclusion is still that the risk has increased for the industry, and I have some specific factors that are affecting OPG in the report.

In terms of you tied this to the equity ratio specifically, and in a bubble chart of risks, this is smaller than, for instance, the Pickering refurbishment or some of the other higher-level risks that we have identified. It still rose to the level that -- of inclusion in the report.

But to get to -- to get to an equity ratio recommendation, I first analyzed the risks holistically, so as a basket of risks for the company, determined based on the totality of that analysis that the risk level had changed for OPG, and then turned to the fair return standard portion of the analysis where we look at proxy groups, come up with a range, determine where within that range OPG falls.

So I say this by way of clarifying that it is -- we don't build from 45 to 52 in an incremental way that your question suggested, but rather assess risks and their overall change and then look to, based on that conclusion, the market data for a reasonable equity thickness recommendation.

T. LADANYI: So since you don't build it, are you saying that you really cannot disaggregate specific risks related to a percent increase? You are saying this is some kind of a mixture, like a stew you are cooking together, or how does this work?

D. DANE: It is a holistic review.

T. LADANYI: No. I get the impression what you are saying is you think that OPG is doing something about protection from cyber attacks, but it is not effective; would that be right?

D. DANE: No. That is not -- that is not my testimony.

T. LADANYI: So if it is effective, then shouldn't there be some kind of recommendation in your recommendation?

J. SILVER: I think, Mr. Ladanyi, Mr. Dane has given you his answer to this question. He hasn't opined on effectiveness of the company's cybersecurity program. He is speaking to the industry-related risk, which is -- so I think he has already answered this question.

T. LADANYI: I understand. And I understand that he actually doesn't know anything about the program, and I don't expect him to know now that I have heard this and -- however, he wants us to consider this risk as being an important risk, as mentioned in the report. If it is not an important risk, it should not have had their -- we can save that for a hearing or for argument.

Now, can we turn to Exhibit L, C1-EP-018, so it is Energy Probe 18. In Question A -- you got it there. Thank you -- I said:

> "Are all ranges of the globe affected equally by severe weather events?" [as read]

And in your answer, you stated, in the second sentence of the response -- maybe you can highlight, maybe make it larger if people can't read it:

"Concentric's statement is not intended to suggest uniform global exposure, but rather to reflect that extreme and disruptive weather-related events are increasing in many regions and are materially affecting utilities' operations, infrastructure, planning, and capital spending decisions worldwide." [as read]

So my question is are utilities changing infrastructure planning and capital spending to protect themselves from extreme and disruptive weather-related events?

D. DANE: As a general premise, yes.

T. LADANYI: But they are not all equally spending. For example, are you aware that in 2020, Florida Public Service Commission made effective its storm protection plan, ruling -- requiring utilities to file a plan covering a 10-year planning period that would be updated every 3 years?

And the goal of this ruling is to enhance utility infrastructure in its ability to withstand extreme weather events, therefore reducing outage and restoration costs and improving service reliability. And also -- you probably know this already -- Texas and New York have the similar requirements.

Are you aware that -- does Ontario have this requirement?

D. DANE: So you -- I am sorry. I don't -- I don't -- I don't think I followed. Can you...

T. LADANYI: Okay. Well, essentially, Florida Public Service Commission essentially directed the utilities under its jurisdiction to file storm protection plans that would cover a 10-year period, and Texas and New York have similar requirements. And I am asking, are you aware whether Ontario has a similar requirement?

D. DANE: I am not aware of Ontario having a 10-year storm prevention plan like in Florida, as you described.

T. LADANYI: Would you expect that utilities in states that have these requirements would probably have more comprehensive plans than OPG has? Would you expect that or not?

J. SILVER: Mr. Ladanyi, I am just trying to -- can you help me understand where these questions are going? They just seem to be a little bit about questions about what other utilities are doing in other --

T. LADANYI: Well, okay. So the report, Mr. Silver, is a comparison between OPG, which operates in Ontario, and utilities operating in many states. And so this is another area of comparison, and Mr. Dane in his report has actually referred to this weather risk. And so we are trying to assess how -- to what extent he has actually looked into this, or is this just kind of like a throwaway talking point?

J. SILVER: I think Mr. Dane can consider -- can explain how he considered the risks, so I think is that what you are -- is that what you are asking?

T. LADANYI: I could ask that, but since you are asking on my behalf, how did you consider the risk and differences between various states?

D. DANE: So the discussion on weather risk relates to severe weather phenomena and their impact on utilities, including OPG. As this response acknowledges, those effects won't be equally -- won't equally impact utilities. They may be different in one region. Florida, for instance, would have, you know, different -- different storm exposure than other states, other provinces.

And so I am not sure, Mr. Ladanyi, if your -- if your implication was that FP&L, for instance, has lower risk than OPG. We do have FPL in the proxy group, and they certainly have a higher equity ratio. But as I described, I think, with Mr. Walker, the purpose of using a proxy group is to come up with ranges of reasonableness and then determine where within that range a point estimate for the subject company lies.

So it is not -- the analysis is necessarily inconsistent with how the investment community would do it holistic, not -- not on a slice-by-slice basis to try to stack up each individual -- each individual risk that way.

T. LADANYI: Are you aware of Ontario's -- or OEB's vulnerability and system hardening consultation, EB-2024-0199?

D. DANE: Generally. It is not something I have looked at recently.

T. LADANYI: And I -- just so we don't get any arguments from Mr. -- so that was intended for distributors, not for generators, but I am just wanting to know if you were aware of this and the OEB was considering.

Now, in that consultation, OEB had a consultant, Guidehouse. You have heard of Guidehouse, haven't you? And they mentioned Florida, amongst other states, and what they were doing. And they also referred to the Duke Energy Florida Storm Protection Plan, which was approved by the Florida Public Service Commission.

Can you turn to your report, page 107, so it is Exhibit C1, Tab 1, Schedule 1, page 107. And I think it is PDF 111, if that might assist you in finding it if -- it is a table, big table. We are getting there, yes. You see page 107. Now, you will see the middle of the page is Duke Energy Florida, and I was wondering why it does not show an equity ratio for it; it just says "NA" there? I don't think you have the right page. There, that one.

D. DANE: It would be for one of a few reasons, and we responded to this question. I think we actually talked about it with Mr. Gluck, so give me a moment. Thank you for bearing with me. Okay. I have confirmed.

So in certain states in the U.S., regulators include zero cost of -- zero cost elements in the regulated capital structure. And by that I mean, they include things like accumulated deferred income taxes, which traditionally in a cost of service calculation are included directly in rate base rather than in the capitalization.

So in instances where those are included not in rate base, but in the capitalization, the equity ratio is not comparable to, for instance, what I will call a financial capital structure, which is what OPG has.

So in response to CCC-31, so in the report, rather than providing those incomparable equity ratios, we put them as "N/A." In response to CCC-31, Attachment 2, we did some additional analysis to adjust those zero cost of capital -- capital structures.

Duke Energy Florida was one of those companies, so their financial capital structure reflects a 53 percent equity ratio. And thank you for bearing with me. I know that was a --

T. LADANYI: No, that is -- I like a thorough answer. This is a technical conference. We are trying to get as close to the truth as possible.

Would a utility with an effective storm protection plan reduce its weather risk?

D. DANE: All else equal, yes.

T. LADANYI: If what OPG is doing is effective in reducing the impact of severe weather events, would its weather risk decrease?

D. DANE: It is difficult to say, just because things change over time, and certainly severe weather risk has increased over time. So, again, all else equal, I think that would reduce risk. It is a little bit in the hypothetical, but to the specifics of what is being addressed, it might mitigate those risks, understanding that additional risks can evolve over time.

T. LADANYI: This is similar to my cybersecurity question. So if you knew that what OPG was doing was particularly effective, would you actually have a different recommendation for equity ratio?

D. DANE: So my recommendation does not change. I have concluded that weather risk has increased, and that feeds into my holistic analysis, understanding that there are mitigating steps taken to address risk, but the risk is still increased. This is in the bubble chart of risks probably on the smaller side compared, again, to execution risk related to Pickering and some of the other items I have noted. But in direct response, no, my recommendation would not change.

T. LADANYI: Okay.

Let's go to your answer in Question D. I asked:

"Do investors believe that OPG faces greater risk from severe weather events than other utilities?" [as read]

And your answer was:

"Concentric's assessment reflects, in its investor-oriented evaluation of OPG's overall business risk profile within which severe weather and environmental risk are one of several relevant contributing factors, these factors influence how investors assess OPG's risk profile relative to other utilities, even if severe weather risks themselves are not uniform across all companies." [as read]

Are the investors you referred to bond investors and equity investors?

D. DANE: I am sorry. I have lost track of which -- which IR response we are on.

T. LADANYI: Oh, this is the same one. Same one.

D. DANE: Okay.

T. LADANYI: Energy Probe 18 and Question D, and I answered -- and I read part of your response.

D. DANE: Yeah.

T. LADANYI: Do you want to study some more?

D. DANE: Yes. Thank you for letting me catch up. So my analysis is focused on equity ratio. It is -- it is -- it is -- the recommendation is related to equity investor risk. I would consider both debt and equity investors to consider the risks that I identified potentially in different ways, but both classes of investors do risk analysis and consider the risks that I have considered.

T. LADANYI: Well, you may recall a line from "My Fair Lady," which goes like this: "In Hertford, Hereford, and Hampshire, hurricanes hardly ever happen." And you might recall that from "My Fair Lady"?

D. DANE: I don't.

T. LADANYI: You don't. I -- I was -- when it came out, I was 15 years old, so there you go. I remember it very clearly, but anyway.

D. DANE: The musical, not that lyric.

T. LADANYI: Anyway, would you agree that in Ontario, hurricanes hardly ever happen?

J. SILVER: I think, Mr. Ladanyi, you know, Mr. Dane, I think there is an IR -- it might be this one -- about -- about Mr. Dane not being proposed as a weather expert. So I think, you know, it is fair for you to ask questions of him with respect to his opinion and identification of risks related to weather, but I think specific questions about -- about the weather itself may just -- may just be a little bit out of bounds.

T. LADANYI: All right. Let me try an inbounds question: When assessing risk profile of utilities in Florida compared to utilities in Ontario, would investors take into account the frequency of hurricanes in Florida to the frequency of hurricanes in Ontario?

D. DANE: They would broadly consider risks including weather-related risks.

T. LADANYI: So would investors require higher returns for utilities in Florida than in Ontario?

D. DANE: Certainly the equity ratios are much higher in Florida. The ROEs also are higher. And the multiplication of those two factors are what results in the overall equity return.

T. LADANYI: Since the Ontario government is the sole OPG equity investor, would it require a higher equity ratio if it believed that OPG faces increased weather risk?

D. DANE: Can you repeat that question.

T. LADANYI: I said since the Ontario government is the sole OPG equity investor, would it require a higher equity ratio if it believed that OPG faces increased weather risk?

D. DANE: So my -- my study is focused on the opportunity cost of capital, not the preferences of a single investor. So if an equity investor perceives higher risk, all else equal, they will require a higher return.

T. LADANYI: So it would be entirely logical for the Ontario government to require for OPG to have a higher equity ratio, would it not?

J. SILVER: I think, Mr. Ladanyi, questions about what the Ontario government would require or not are not within Mr. Dane's report or expertise. I think he has given you the answer at the investor level generally.

T. LADANYI: Okay. Let me put it, then, another way. I will leave Ontario government out of it.

Would the mythical equity investor require OPG to have a higher equity ratio if it believed OPG faces increased weather risk?

D. DANE: I would respond more in the general. If an investor perceives higher risk, all else equal, they will require a higher return.

T. LADANYI: But if OPG had a very effective storm protection plan, they might not require that. Would you agree with that?

D. DANE: Not necessarily. I think that could be part of the analysis. But as I described previously, it is -- the overall return is set based on the overall risk profile of the company, pluses and minuses.

T. LADANYI: Thank you. Those are all my questions.

D. DANE: Thank you.

M. MILLAR: Thank you very much, Mr. Ladanyi.

I think -- so we are -- yeah, we still have a bit more time before our afternoon break.

Mr. Rubenstein, are you asking questions on behalf of Schools?

M. RUBENSTEIN: Yes, I am.

M. MILLAR: Are you ready to go?

M. RUBENSTEIN: I was just wondering if we -- would you like me to go now?

M. MILLAR: If you can. I have got you down for about 10 minutes, so we could get you done before the break, if that -- if you can do that.

CROSS-EXAMINATION BY M. RUBENSTEIN (SEC):

M. RUBENSTEIN: Sure. Good afternoon, Mr. Dane.

D. DANE: Good afternoon.

M. RUBENSTEIN: Nice to see you again.

D. DANE: Nice to see you.

M. RUBENSTEIN: I only have a few questions, but I first want to follow up on some of the discussion you had with Mr. Ladanyi. And I apologize as I didn't catch all the IRs that were put up on the screen, so I just -- hopefully you still recall your discussion.

And Mr. Ladanyi was asking you about cybersecurity risk, and I think your evidence and the evidence in the report is that OPG is facing greater cybersecurity risk than it has in the past. Is that a high level summary?

D. DANE: It is.

M. RUBENSTEIN: And as I understand, one of the

-- and because of that, it is one of the reasons that the business risk of the company has increased, and that is one of the reasons why you are recommending an increase in the equity thickness; correct?

D. DANE: Mr. Rubenstein, as part of the overall analysis, as I described, it doesn't rise to the level of, for instance, the refurbishment risks and some of the other capital-related risks. But it is part of the overall analysis.

M. RUBENSTEIN: So you agree with me? Sorry, I...

D. DANE: Could you just restate the question.

M. RUBENSTEIN: As I understand, the increase in cybersecurity risk is one of the reasons that has increased the company's business risk, and that is one of the reasons that you are proposing an increase in the equity ratio?

D. DANE: I would state it a little bit differently. My overall assessment is that the risk profile has increased. Cyber is one of those risks. And then based on that overall analysis, I have done a comparison to market data to establish a recommended equity ratio.

So the risk analysis is done in its entirety, and then based on that conclusion, brought forward to the fair return standard analysis.

M. RUBENSTEIN: And you would agree with me that the increase in cybersecurity risk compared to the past is not specific to OPG generally, as I think your evidence talks about, even what is on the screen. Other utilities and critical infrastructure have also seen an increase in their cybersecurity risk since the last time you would have done an assessment? So I think it's about five, six years ago.

D. DANE: Yes.

M. RUBENSTEIN: And would you agree with me that cybersecurity risk has also increased across the economy to all businesses and all sectors?

D. DANE: I think that is fair.

M. RUBENSTEIN: Is your assessment of the increase in the cybersecurity risk, which is part of the puzzle -- part of the analysis leading to the increase in the business risk, is that based on the change in cybersecurity risk for OPG over time?

Or is it based on the change in cybersecurity risk for OPG relative to other utilities? Or is it based on the change in cybersecurity risk for OPG vis-à-vis the rest of the economy or businesses?

D. DANE: My report is focused on the assessment of OPG's risks.

M. RUBENSTEIN: Okay. And so if OPG's cybersecurity risk is -- has increased the same as the peer group, does that change your analysis?

D. DANE: No.

M. RUBENSTEIN: And what about if its increase in cybersecurity risk is the same as the economy as a whole? And by that, I just mean, you know, other businesses, other entities, the cybersecurity risk that they face -- that they face.

D. DANE: Well, of course my study is specific to utilities and so that is the comparison I have done. My assessment is that cyber risk has increased across the industry.

My analysis of other companies is focused on utilities. And, again, it is not that OPG's cyber risk is lesser than or greater than the company's or, rather, understanding that this is a source of increased risk.

M. RUBENSTEIN: But you would agree with me that in the -- you know, when we are undertaking a fair return standard assessment, part of that is a comparison exercise, right. What would equity investors -- where they would put their money, right. And you are looking at -- it is a comparative exercise.

I am just trying to understand. So, for example, utilities -- you know, you -- the -- you are looking at utilities specifically as a peer group vis-à-vis OPG and what -- because that is entities of like risk.

But I am just trying to understand, then, the comparison against how equities investors would look at utilities versus the economy as a whole in the --

when we are looking -- and here, I am specifically talking about cybersecurity. And I am just trying to understand how I am supposed to think about that, how the Board and ultimately -- I mean, ultimately, the Commissioners would have to think about that.

D. DANE: Sure. And as this response says, this risk is particularly of importance for critical infrastructure such as utility services.

So just to read the response in front of us:

"Investors recognize that cybersecurity risk has increased across the utility sector as a whole, particularly for owners and operators of critical infrastructure." [as read]

As I just said. So the result of a cyber attack would, all else equal, be probably of higher import or more -- affect more people or the economy or what have you for attacks on critical infrastructure versus something that is not in that class.

M. RUBENSTEIN: And can you define what -- in the context of this response, what did -- how would you define "critical infrastructure"? What sectors would that include?

D. DANE: Well, it would certainly include utilities, transportation. I don't have a complete list in mind but --

M. RUBENSTEIN: Telecommunications, financial services?

D. DANE: I think that is fair.

M. RUBENSTEIN: Okay. And as I understand from your report generally, at least what I have taken away from some of your analysis, if a utility has a variance account related to some certain costs, that would, relative to them not having that variance account, reduce the risk; correct?

D. DANE: Yes. Broadly, deferral and variance accounts serve to mitigate certain risks.

M. RUBENSTEIN: But why would -- and you had a discussion with Mr. Ladanyi about -- in the context of cybersecurity of does it matter what OPG is doing or not doing in the context.

And I was just confused because why would it not be the same thing regarding actions the company is taking to mitigate risk? For example, cybersecurity, why wouldn't that be relevant to the assessment of the business risk? The variance account mitigates risk. Why aren't the actions the utility does to mitigate the risk relevant?

D. DANE: I wouldn't agree that they are not relevant.

M. RUBENSTEIN: Okay. You just didn't do an assessment of that. Is that what I should have taken away from that conversation?

D. DANE: Well, not on a -- not specifically to what Mr. Ladanyi was describing. Certainly -- and this gets back to the comparable portion of the analysis, is an understanding that we are looking at all utilities, and they have certain requirements around addressing these types of risks. There may be particular things that pop up for one versus another, but under, you know, prudent operation of the utilities and requirements from NERC and others that are imposed, those certainly come into the equation.

M. RUBENSTEIN: And I don't know the answer to this question but -- so this is a hypothetical. If OPG was doing more than the peer group on something like cybersecurity, right, its defences were better, would that have an impact on the risk?

D. DANE: In this hypothetical, potentially. I would need to consider those facts. Again -- yeah, it would be fact specific.

M. RUBENSTEIN: Okay. And then you were asked about weather risk, and there was an IR on the screen. And I took it from your response was investors were not looking at specific utilities when you were talking about severe weather events. It was sort of looking at the utilities as a whole, right.

The sector as a whole is seeing severe weather events. They are not looking, generally speaking, utility by utility. Did I -- is that -- did I catch that correctly?

D. DANE: No, that was not -- at least not my intent. My conclusion is that severe weather is affecting utilities generally, I do think particular impacts.

And we talked about the Florida storm plans, for instance, which is a form of regulatory protection for those Florida utilities, would certainly be considered in the overall analysis.

M. RUBENSTEIN: So if OPG's risk of severe weather is different than the peer group, right, because of its location, how does that impact -- does that impact its business risk?

D. DANE: It certainly could.

M. RUBENSTEIN: And I take it from the comments from Mr. Silver that you are not a climatologist, you haven't looked into that?

D. DANE: My approach is from an investment and financial perspective, not a -- not specifics to meteorology, so I haven't looked into the exact weather events.

M. RUBENSTEIN: Okay. Okay. Thank you very much.

Can we go to C1-CCC-32. And if we can scroll down to the response.

In Part A, you provide a list of definitions in Figure 18, and you say it comes from the:

> "Regulatory Research Associates' Adjustment Clauses, a State-By-State Overview report, published by S&P Global Capital IQ in September 2025." [as read]

Do you see that?

D. DANE: I do.

M. RUBENSTEIN: Can you provide a copy of that report?

D. DANE: Yes. I wondered if we hadn't already provided, but we certainly can.

M. RUBENSTEIN: I didn't see it. There is a lot of material, and I looked for it, and I didn't see it. But if you can provide it. And if somehow it is on the evidence, I guess you can just point me to that.

M. MILLAR: The undertaking is JT-6.5.

UNDERTAKING JT-6.5: Provide a copy of the Regulatory Research Associates' adjustment clauses, a state-by-state overview report, published by S&P Global Capital IQ in September 2025

D. DANE: And can we scroll down. I am sorry, I just want to -- if we go down further. To the next page. Okay. Yeah, if we haven't already provided it, we can provide that.

M. RUBENSTEIN: Sure.

Can we go to C1-CCC-28. So in Part B, you were asked:

"In terms of Concentric's proxy group, please list all the peer companies that have no or less risk related to the variability of generation output due to rate design or regulatory treatment. As part of the response, please provide a detailed description of the rate design approach or other regulatory treatment that reduces production forecast risk." [as read]

And then in your response to Part B, you say:

"As discussed in Part A, OPG has greater risk related to generation output due to the rate design or regulatory treatment and the peer group companies in Concentric's proxy group." [as read]

And it may just be how the question is worded exactly, but I take it from your response as compared to what was asked, all companies, in your view, have no or less risk than OPG or really less risk than OPG; correct?

D. DANE: As a general premise, yes, that is the conclusion.

M. RUBENSTEIN: Now, the -- you did not answer the second part of the question, which asks for a detailed description of the rate design approaches or other regulatory treatment that reduces the production forecast risk. Can you provide that?

J. SILVER: Just give us one second.

D. DANE: So that is Part A, Mr. Rubenstein.

M. RUBENSTEIN: No. In Part B -- sorry. Are you saying you have provided this?

D. DANE: Yeah, the response is in Part A.

M. RUBENSTEIN: Well, I didn't see a -- well, I didn't see a detailed -- I mean, the question specifically asks for a detailed description of the rate design approaches or regulatory treatments for each of the entities. I just didn't see that. I think there is -- you know, if we know the evidence and there is some sort of general categorizations of some of the mechanisms.

But the question asked for specific details of each of the peer groups. Is that something you can provide?

J. SILVER: If you can just give us one second, Mr. Rubenstein. Yeah, that -- that -- Mr. Rubenstein, I think that appears to be a pretty onerous ask. Is there something we could provide by way of summary that might satisfy the inquiry you are making?

D. DANE: Well, I don't know if it is helpful, but my intent was for Part A to respond to that part of the question.

M. RUBENSTEIN: Well, let me put it this way: Outside of the general categorizations that you have used in your evidence, which, as I understand, you have drawn primarily from -- I forget the database -- the regulatory research database, did you look at the individual company by company mechanisms, you know, the dockets where they are driven, exactly how they are structured, or is that the information that you derived when you -- when you were preparing your report in the answer to this question?

D. DANE: So we do have some company-by-company information. It is in an attachment to -- I am not sure if it was this discovery response or not, but it goes through the proxy companies and lists their cost recovery mechanisms. And we provided an additional report published by the Edison Electric Institute, which covers some of those same concepts.

M. RUBENSTEIN: And is that where you have derived your information from, all that that you have put on the record?

D. DANE: That report from Regulatory Research Institute, yes, that is a primary source for that exhibit that we put together.

M. RUBENSTEIN: Okay. So, I mean, I know the question asked -- Mr. Silver said it is very onerous. I think my -- I am more interested in is there any other information that you have used to derive in the -- in your construction of your report that is in addition to what you have provided on the record or possibly what you have undertaken to provide today, which is the adjustment clause state-by-state overview report.

Is there -- is there something else, and if so, can you provide that?

D. DANE: And so I've certainly relied on my industry knowledge, but in terms of the specific sources that we tied to put together these analyses, those are the summation of them.

M. RUBENSTEIN: Okay. Thank you very much.

D. DANE: Yeah.

M. RUBENSTEIN: And then finally, can we go to C1-SEC-32. So in this question, we were asking you about other pure play generators and why they may or may not be included in your report.

And if you scroll down to -- and you have a discussion, and part of it, as I understand your discussion, is the difference between recourse and corporate debt that some of these -- some of these entities finance the -- some of the project capital -- sorry -- non-recourse debt.

And in -- if we go down to page 3 and 4, you provide a table that shows, for this -- these other entities, what their debt-to-equity ratio is or debt-to-equity numbers are on a corporate debt only. Do you see that?

D. DANE: I do.

M. RUBENSTEIN: Are you able to provide a revised version of the tables on page 3 and 4 that show all debt, not just corporate debt?

J. SILVER: Mr. Rubenstein, can you maybe just help with the relevance of providing that?

M. RUBENSTEIN: Sure. Well, the question goes at that one of the discussions -- the question is why are some of these entities not included in your peer group, why would you not?

Mr. Dane then provides a lengthy response regarding how they are -- how their structure is, that they have different types of debt. There is corporate debt, and then there is non-recourse debt. And then he provides a table that shows, in his view, that is only -- I take it, is only relevant is the corporate debt, and we would like to understand how those numbers look when you include all of the debt.

J. SILVER: Can we -- yeah, I think we will undertake to take that back to consider it, and we will provide it or advise why we can't provide it.

M. MILLAR: Okay. We will mark that as JT-6.6.

UNDERTAKING JT-6.6: Provide a revised version of the tables on page 3 and 4 OF C1-SEC-32 that show all debt, not just corporate debt

M. RUBENSTEIN: Those are my questions. Thank you very much for your assistance.

D. DANE: Thank you.

M. MILLAR: Thank you, Mr. Rubenstein.

We are close to our afternoon break, but if possible, I would love to finish you first. Because after you, we are switching over to some other witnesses, and we would have to take another break.

I have you for 10 minutes. Will you be 10 minutes or less?

M. GARNER: I was going to say I might be slightly more, but I don't have a lot, and I think it would then allow both Mr. Dane and I to grab our New York Times and read about how the United States won its war with Iran. So if we can -- I am not going to be long, so if you don't mind, if Mr. Dane doesn't mind.

M. MILLAR: Please go ahead. I don't think we can go much longer than 10 minutes before a break, but do your best.

CROSS-EXAMINATION BY M. GARNER (VECC):

M. GARNER: We will do our best.

Mr. Dane, it was very helpful this morning with Mr. Gluck. You got through most of the issues I had. I just have a few more. They were with this metric -- the debt metric thing, so if you can just bear with me, I just really have some basic questions.

If you bring up the sheet that he used, LC1-CC-026, Attachment 2, and if you have that in front of yourself, this is really just by the way of you explaining to me how this is working. Okay.

So the first thing, just if you can tell me if I have got this right. What you are doing in this table is you are extracting out everything that is non-regulated to create a sort of a regulated equivalence; right? This is what the spreadsheet is doing and --

J. SILVER: Mr. Garner, sorry. Just maybe give Mr. Dane a moment and the screen a moment. I know we are rushing and low on time, but just to make sure we all --

M. GARNER: Sorry.

J. SILVER: I know we just want to make sure we all have it in front of us.

M. GARNER: I don't want to take up more time than I --

J. SILVER: No. I just want to make sure everyone has time to consider what you are asking, so apologies -- apologies for interrupting.

M. GARNER: Fair enough.

And this is the table, Mr. Dane. So the first question was just -- is my concept conceptually what you are doing, not in detail, but conceptually what you are doing is you are extracting out all the non-regulated end of OPG and recreating these metrics, the cash flow from operations and funds from operations, just on the basis of a regulated entity? Sort of theoretically, that is the way it would all look? That is what I am looking at; isn't that correct?

D. DANE: I think that is fair, Mr. Garner.

M. GARNER: Thank you.

And so the figures below, you know, when you get to the FFO per debt, et cetera, those figures, 16.1 and then the CFO -- I am looking at 2022. There is a figure of 16.1 and 17.1. And then what I do, if I go -- and we are going to jump around just a little bit -- I go to your evidence, and I am at page 48 -- 49 of your evidence, and Mr. Gluck and you were there with your evidence where you put together a pro forma version of this, and there is a spreadsheet that supports this -- we don't need to go to it -- of that Figure 10. And what you are showing us here is, on a pro forma basis, the same sort of analysis.

And as I take it, just so I understand the math of everything, in these numbers, high ratios are better than low ratios, so to speak; right? On both metrics, CFFO and CFO per debt, the higher the number, the better the outcome, so to speak? First of all, just mathematically, that is the way one looks at the table; right?

D. DANE: Yes. I would put it that the higher the metric, the more credit supportive.

M. GARNER: Yeah, more credit support.

Now, right below the table, you -- it says here, is that you then -- it says:

> "As shown in the figure, 45 percent." [as read]

You are comparing the 45 percent existing with the 52 percent proposed. The thickness based on the hypothetical deemed only will consistently fall below the rating agency's downgrade threshold. But that caught my attention for this reason: The downgrade thresholds, though, of the rating agencies aren't based on, as these numbers are, an extraction of just the regulated. They are based on the holus-bolus concept of the utility.

So conceptually, wouldn't there be a different set of, you know what I mean, numbers because you are not looking at the same type of company now, so those are thresholds built for a different company you are comparing it to; isn't that true?

D. DANE: That is a bit oversimplified. So to determine the ratios, the -- at a high level, the credit rating agencies, they assess business risk and rate the company based on its business risk. And then that puts the company into a certain category for purposes of establishing where in the range the metrics are. And from there -- and there is additional considerations that I am not privy to that the credit raters go through.

But as a general premise, from there, they determine these thresholds. So it is not -- sorry. It is not a matter of saying -- it is not a matter of saying that it would necessarily change for -- from company to company or for one iteration of OPG versus another.

M. GARNER: I will not put words in your mouth, then. You don't see there being any inconsistency that what you are concluding is that based on thresholds rating agencies use for a -- I am not sure the word I would use -- the amalgamated OPG, would necessarily be exact the same thresholds one would use with what you have done, which is created a theoretical extracted company from that? You would say is that that -- those would be the same ratings?

You don't see any inconsistency in that?

D. DANE: Of course, hypothetically, I can't speak to what credit agencies would do if OPG were 100 percent regulated in terms of whether these thresholds would change. But generally, based on their approach, I think that use of these metrics is reasonable for purposes of looking at the regulated only.

M. GARNER: Okay. I won't belabour it because I want to be quick, and I want you to help me with one other thing that is actually, again, kind of more of a math problem.

I was looking at the table we were looking at, the spreadsheet, and we could still focus on 2022, which is the 16.1 and the 17.1 for FFO and CFO. And then I yanked up a Moody's Ratings report, and I don't know if you can see this together.

And if you can't -- if you can, it is at Exhibit A2-3-1, Attachment 9. So it is A2-3-1, Attachment 9. And if you go to page 3 of 15, if you bring that up. And it is unfortunate -- I have them both up on my screen. It is unfortunate that you don't because it just allows you to look at what I am looking at.

I am just trying to reconcile two different numbers and understand if I am comparing them -- what number I should be comparing or if I should even be comparing it.

So if you go to page 3 of -- I believe it is 3 of 15, I don't know if you can read that, Mr. Dane. I certainly couldn't on the screen, but there you go. Okay.

You see these CFO pre-WC debt numbers, et cetera, for 2022. Can I -- I know they are not comparable because you have done an analysis, but in the sense of their number before you extract everything and your number when you extract everything, am I comparing one of these rows to, you know, your CFO debt of 17.1 in 2021?

Would I be comparing that -- or sorry -- 2022. Would I be comparing that to a row here of CFO pre-WC debt of 25.2? I mean, yours will be a different number, don't get me wrong. I understand they should be different. But is that what I would be comparing your analysis extracted to from the non-extracted? Do you know what I am saying?

D. DANE: I am not sure what you are trying to accomplish.

M. GARNER: Well, I am just trying to understand when looking -- how I am looking at where your adjustment -- what amount of your adjustment -- how much it adjusts things, so to speak, you know what I mean?

So you derive out of your model a number for CFO of 17.1, and so I am looking back at the Moody's, and all I am saying is, oh, so before you have a model to extract it, that number is 25.2, and then when you do your analysis, the new number is -- that you get for this type of thing is 17.1.

Do you know what I mean? I just want to know if I am looking at the right place or if I am looking at something very different, you know, than what you are doing. Do you know what I mean?

D. DANE: Yeah. I would say looking at something different.

M. GARNER: And how so, yeah?

D. DANE: So -- and the exhibit we had up was in response to an interrogatory, so it wasn't part of the initial analysis that was performed for my report, which was on a forward-looking basis.

M. GARNER: Sure.

D. DANE: In response to that question, we reproduced that analysis back over a historical period, but it is still pro forma in the sense it is based on the same calculations starting with rate base, applying return, et cetera, to come up with a pro forma number.

This analysis from Moody's, besides as we have been discussing, are reflecting something different in that it is the overall OPG corporate level, is backwards-looking based on, I believe, actual information. So --

M. GARNER: Sorry. I am just confused. You said pro forma, but the L1-CCC-026, it is using years 2017 through 2026, which I assumed at least up until

2024 are actual -- like, you are making calculations based off of actual figures. Am I wrong?

D. DANE: It is pro forma in the sense they were isolating regulated operations, and, again, performing that based on a rate base rate of return analysis rather than this figure, which will reflect all of the cash inflows and outflows of OPG corporate.

M. GARNER: Okay. We may have a different understanding of what the word "pro forma" means. But I am not sure I understand that. I will have to give that some thought.

Okay. I think that is probably as far as I can go, then, with that. Thank you, Mr. Dane. That was helpful.

D. DANE: Thank you.

M. GARNER: And I am done at 3:08.

M. MILLAR: Okay. Thank you. Perfect, Mr. Garner.

We will take our afternoon break now, and we are returning with Christensen. Mr. Crowley, I believe. So let's break for 15 minutes. We will come back at about 3:25.

D. DANE: Great. Thank you.

M. MILLAR: Oh, and thank you very much for your help today, Mr. Dane.

D. DANE: Sure, thank you.

--- Upon recessing at 3:09 p.m.

--- Upon resuming at 3:24 p.m.

M. MILLAR: Good afternoon, everyone. We have now with us Nick Crowley from -- VP of Christensen Associates who has filed some materials on behalf of OEB Staff. And I understand that Mr. Boyle has some questions for him. So I can turn it over to you, Mr. Boyle.

PANEL 3

CROSS-EXAMINATION BY C. BOYLE (WTFN):

C. BOYLE: Good afternoon, Mr. Crowley. It is good to see you again.

N. CROWLEY: Good to see you.

C. BOYLE: For those who don't know me, my name is Colm Boyle, and I am here on behalf of WTFN. And WTFN is a First Nations group that is looking to explore economic reconciliation opportunities with OPG including potential equity participation in the DNNP LP entity.

I had a look at the schedule yesterday, and I realized that I am the only person that is asking OEB Staff witnesses questions here, so I thank you for indulging me for the latter part of the day here. I don't intend to take much of your time, especially since I have a daycare graduation to attend shortly here.

So I think if we could turn to my first series of interrogatories under WTFN-1, and I think that is page 26 of the IR responses. I assume somebody is working the screen or else I can pull it up correctly too.

M. MILLAR: I think there is someone from OPG who is doing that, but I stand to be corrected.

Mr. Sternberg, is that correct? There was somebody pulling --

A. BROWN: Apologies.

M. MILLAR: -- not sure.

A. BROWN: Yeah. This is Andrea. We are prepared to present the Christensen reports as we were asked to, but we don't have in front of us the IRs that WTFN would have submitted to OEB Staff.

C. BOYLE: Okay. I can pull those up here. I have them here in front of me. Give me a second. I believe I should be sharing the responses now. Can you see them up on the screen?

N. CROWLEY: Yes, I can see it.

C. BOYLE: Okay. Perfect.

So in the -- I am just looking at the kind of lead in to the response here that you initially provided. So you said that Christensen Associates was not asked to provide any opinion evidence in response to the Polar Star advisory report. Do I have that right?

N. CROWLEY: Yeah, that is right.

C. BOYLE: So instead, you were asked to provide purely factual information about bond holdings -- or bond offerings with a view to providing some factual context?

N. CROWLEY: Correct.

C. BOYLE: I don't think we need to turn to it, mostly because I don't have it pulled up currently, but I am happy to go there if you wish. But at page 7 of the report, you also qualify that you were unable to find complete public information, in quotes, in many cases about how major projects are funded.

And you also state that your analysis was limited to about 20 years in the past. Are both of those also correct?

N. CROWLEY: That is correct. So, for example, with the -- with regard to how projects are financed, some of that information is available in the form of public filings, and some of it is just not available. It depends on the type of company, and it depends on the jurisdiction. So the granularity that we might want is not always available.

C. BOYLE: So, yeah, I guess I am just getting to the point that there might be a number of projects that are missing from Tables 1 and Table 2 of your report?

N. CROWLEY: Yeah, I wouldn't necessarily call them missing, but instead I would say that it is not a comprehensive table with every example that is out there.

C. BOYLE: Yeah, I guess that is fair. You found the ones that you could that were publicly available?

N. CROWLEY: Right.

C. BOYLE: And I guess this is just a question I have too. Was there any correlation between equity funding and those ones maybe being private, that all of the public ones were -- like, the reason that you found the public ones because they were being backed by public entities and maybe the private ones were maybe less public?

N. CROWLEY: I suppose that is possible, although we were looking at fairly large projects so they would -- you know, these are multi-billion dollar infrastructure projects. So my guess is that we -- for example, on the nuclear table, Table 1, I think we captured the ones that I would expect to be found if a person were to look for major nuclear projects in the past 20 years.

C. BOYLE: Yeah. But, I mean, if there is some sort of private equity funding, it is probably not public, then; hey?

N. CROWLEY: When you say "probably not public," do you mean that the information about the project is not public or that the project itself is not showing up on the table?

C. BOYLE: That is a fair question. You didn't have enough information to populate a project like that in your table?

N. CROWLEY: That could be in theory, although I am not sure if that happened.

So, for example, I don't know that there is anything that we found that we didn't have sufficient information so we just left it out. I am not sure that that is the case.

C. BOYLE: Okay. So I guess given that there may be some projects that have been left out of the table, it is possible that your survey didn't include all possible methods used by utilities and power generators to finance major capital projects?

N. CROWLEY: That is possible.

C. BOYLE: Okay. Now, if we -- maybe I will try to switch screens here again and share the report with you, where I am looking in the report here. Just a second. Oh, does somebody else have the report up?

N. CROWLEY: I am able to see it.

A. BROWN: Lori has the reports, Mr. Boyle, if you want to direct her where you want to go.

C. BOYLE: Oh. Sure. Section 6, please. And just down to the last paragraph. I am just looking at the statements in the very last paragraph there.

So we kind of -- we established earlier that this was supposed to be a factual report, and I am just curious where you found the statement that:

"DNNP LP's proposed capital structure is unique in that it does not propose financial initial "construction or operations with any debt, targeting an equity ratio of 100 percent." [as read]

I guess, where does that come from?

N. CROWLEY: Well, I guess the first part of that sentence is "among the recent six viable nuclear projects surveyed." So it is not necessarily that it is unique universally, but just in terms of the nuclear projects surveyed.

C. BOYLE: I guess, who made that assessment of unique? Was that you?

N. CROWLEY: Yeah. I would say -- just looking at the table, that would be Table 1, if we look -- if we compare DNNP to the companies in Table 1, it would be considered, you know, unique compared to those six viable nuclear plants.

C. BOYLE: Okay. So that is kind of your view on this, that it is unique in the context here? There is no report that says that?

N. CROWLEY: Sure.

C. BOYLE: Okay. And then I guess if we could go back down to Section 6, the second -- or I guess it would be the third sentence there again, it is.

"DNNP LP's proposed capital structure could also be considered unique among major utility infrastructure projects in Canada more generally." [as read]

Again, I am wondering, where did that statement come from?

N. CROWLEY: I think that one is drawing upon Table 2. So if we look at Table 2, that table contains major hydroelectric plants, for example, from Manitoba Hydro and BC Hydro and Nalcor Muskrat Falls. If we look at the way that those projects are financed, it would be considered unique. That is to say OPG would be considered unique compared to those.

C. BOYLE: And I guess the question is, again, was this your view that it was unique?

N. CROWLEY: I struggle a little bit with understanding the question because I am just -- if you compare, like, three orange balls to a red ball, it would be my opinion that the red ball is different from orange, but I think that would sort of be universally understood.

C. BOYLE: So I guess if it is universally understood, where -- like, where could I find this?

N. CROWLEY: Okay. So let's -- let's just -- I am going to read that last sentence:

> "DNNP's proposed capital structure could also be considered unique among major utility infrastructure projects in Canada more generally, as major hydroelectric generation projects constructed in the past decade have employed debt financing." [as read]

So if we go back up to Table 2 and look at the last column and -- or I should say -- is it the last column? There should be information there for the first three projects, which are the hydroelectric projects, whether or not they were financed by some amount of debt. I believe all three of them are.

C. BOYLE: Right. But, I mean, an assessment of unique, I mean, you are presenting -- you are presenting this report as a fact -- as a fact report, so therefore, I don't know if I -- I am struggling to accept your characterization of --

N. CROWLEY: Okay. Let me -- let me put it this way: So if -- what DNNP LP has proposed is to have a 100 percent equity financed project for the first -- well, for the construction years, and then for the first 12 to 18 months at a minimum. So that is a 100 percent equity compared to a sample of entities that are not 100 percent equity.

So when I say "unique," I am saying that in that, there is a 100 percent equity financing route on the DNNP LP side, and that is not the case for these other companies. That is all I am saying is that there is something different about those three companies versus the one company. And that difference is one is financed by 100 percent equity, the other is financed by, at least in part, debt.

C. BOYLE: And, I mean, what I am -- the point I am trying to get at here, to kind of cut to the chase, is that you are not being presented as an expert in this proceeding, and in order to come to that unique conclusion, it involves a level of judgment. Like, it is not a fact. Like, taking those three companies and comparing them, I mean, in my view, falls into the category of opinion. And I was just trying to explore as to where or how you reached this conclusion.

Because if it is a fact that is pervasive, I would have liked to have known the source of that. And, obviously, that paragraph doesn't have a citation or any sort of qualifications on where that came from. So I don't think we need to belabour this point so --

N. CROWLEY: I will just sort of conclude my thought by saying that that last paragraph is based on the contents of the table. So the citation if there -- if there were to be a citation, it would be Table 1, Table 2.

C. BOYLE: Okay.

If we could -- I will pull the interrogatories back up here. In -- I guess I am moving down to this response here. I didn't quite understand what you meant by that sentence, and I was just giving you an opportunity to maybe clarify a bit more.

N. CROWLEY: So let's -- can we look at the question?

C. BOYLE: Sure.

N. CROWLEY: So the question reads:

"Did the research report consider equity investments by First Nations partners in DNNP LP?" [as read]

And so my response, I think, says something to the effect of I was not aware -- or the evidence does not suggest -- the evidence that I reviewed does not make statements about First Nations partners with DNNP LP.

And the purpose of the report is to address the Polar Star statements or to investigate the Polar Star statements to a certain extent. And I didn't see anything in the Polar Star report that discussed First Nations partners with DNNP, so there was no -- that -- essentially, looking at equity investments by First Nations partners in DNNP was just -- to answer the question plainly, it was not considered because it is not within the scope -- it is not within the Polar Star advisory report.

C. BOYLE: Okay. Thank you.

N. CROWLEY: Yeah.

C. BOYLE: I guess the next question I have here is in respect of B, and, again, we can go back up to the question itself. And I think your answer to A might already answer the -- answer B. But I think the question was -- is in any of the nuclear examples that you provided in Table 1, I didn't -- I guess I was just checking to make sure that I wasn't missing anything, but none of them jumped out to me as having equity investment by First Nations partners.

N. CROWLEY: Yes.
C. BOYLE: Do I have that right? Yeah.
N. CROWLEY: I would say I don't know the answer to that. We didn't investigate whether equity was owned by First Nations partners.
C. BOYLE: Fair enough. But I guess based on what you know right now is you didn't see anything?
N. CROWLEY: I did not see anything, and we did not look for it.
C. BOYLE: Okay.
Last question here. I know this is probably a very pedantic question, but I -- just a clarification I am looking for. So I've realized in the answers to D, E, and F here, you say that you weren't asked to do this, but I just wanted to confirm that you didn't actually do it either?
N. CROWLEY: Correct.
C. BOYLE: Okay. Thanks. That is all my questions for you, Mr. Crowley, so thank you for your time.
N. CROWLEY: Thank you.
M. MILLAR: Thank you very much, Mr. Boyle.
I think we have our next witnesses available. Ms. Wang and Mr. McLeod, are you there?
S. WANG: Yes, we are here.
D. MCLEOD: Yes.
M. MILLAR: Okay. So, first, I will say thank you to Mr. Crowley for your assistance today.

Mr. Boyle, are you ready to -- I will introduce the witnesses, but are you ready to just keep going?

C. BOYLE: Yeah, I will trek on.

M. MILLAR: Okay.

Just very quickly, we have with us Sherry Wang and Dan McLeod, who authored the report sponsored by OEB Staff on the nuclear -- the nuclear -- the proposed nuclear framework. So I will pass it to you, Mr. Boyle.

PANEL 4

CROSS-EXAMINATION BY C. BOYLE (WTFN):

C. BOYLE: Sure. Is my screen still sharing there?

M. MILLAR: It is.

C. BOYLE: Okay. I will jump down to the next set of interrogatories, then.

So this is the -- the second -- I have a bit of a lead-in here to -- before I get to my question, so bear with me for a minute. So as you are likely aware, the First Nations cannot participate as an equity partner in OPG directly.

So as -- so what I am looking at this is from the perspective of a potential equity investor in DNNP LP as a standalone generation utility for the purposes of the parties I represent. So I think -- I don't know if you were listening earlier to Mr. Silver and Mr. Walker, but Mr. Silver kind of briefly explained the regulatory framework, but I will revisit it quickly.

So this application has been filed by two entities, so there is OPG and DNNP LP. We are still waiting on a decision under Section 8 of O. Reg 53/05, which would deem DNNP as a prescribed generator and effectively allow it to operate independent of OPG.

So what the -- what that practically means is that when you are calculating the revenue requirement for DNNP, it is possible that the inputs that go into DNNP could theoretically be different than those for OPG.

So getting to your report now, my understanding was that you framed the scope of the report to cover two topics. And the first was responding evidence to the total cost benchmarking of ScottMadden, and the second is the proposed stretch factor for OPG. Is that -- do I have that generally right?

S. WANG: Yes.

C. BOYLE: Okay. Thanks.

So with that in mind, I notice that the title of the report includes an evaluation of DNNP LP's proposed nuclear payments framework. So do I -- I assume I have that correct too?

S. WANG: Yeah, I think that is correct.

C. BOYLE: Okay.

And then I am just looking down at the responses. So I asked a number of questions here that say that the response is essentially Christensen did not perform a DNNP-specific benchmarking analysis.

And so I am kind of looking at this, going, well, what was the scope of your report, then, in respect of DNNP if you didn't conduct an independent analysis on it? So maybe you can help me understand that. So was DNNP assessed as a standalone entity in this report?

D. MCLEOD: Well, my understanding looking at the scope of work on the benchmarking -- the total cost benchmarking section is that we were asked to critique the ScottMadden report, including the econometric method analysis and the data underpinning that report.

And so that is where our focus was not, in terms of the benchmarking, on the DNNP side because ScottMadden did not benchmark -- include a benchmarking analysis of DNNP.

C. BOYLE: Okay. So -- oh, sorry. I will let you finish.

S. WANG: In terms of the other part of our report, we are asked to comment on the application of the stretch factor in the application and also the overall rate framework.

C. BOYLE: So I guess can you help me understand? If I am -- if I am looking at this as -- say I am DNNP looking at this, going, does this report apply to me, what is the answer to that? Or, like, I guess I am trying to figure out to what extent do any of your findings in this report apply to DNNP?

S. WANG: I mean, for the stretch factor application and the rate framework part, because we -- if I understand correctly that it is a joint application, and the application is seeking a blended payment amount for nuclear generation including both DNNP and OPG.

So we are just commenting on the general application of the stretch factor as regard to -- you know, as part of the rate framework. So to the extent that we mentioned DNNP, that is because it is included in the application and was discussed as part of the rate framework.

C. BOYLE: Let's stick on the -- so I think that my first question pertained to the stretch factor. So if I have the two scenarios that you posed correctly in my questions here, is that the first is either you apply a 0.3 stretch factor to DNNP if -- if their revenue requirement is included, and if it is not included, then you increase the stretch factor for OPG from 0.3 to 0.45; is that -- is that correct?

S. WANG: Actually not quite. So in our report, what we said in the first -- so let me just take a step back. So --

C. BOYLE: Sure.

S. WANG: The 0.3 percent is what ScottMadden proposed -- or -- sorry -- OPG proposed based on the total cost benchmarking study conducted by ScottMadden, and they -- in the application, they propose a 0.3 percent stretch factor. And in our report, first, we critiqued the ScottMadden study, and based on the flaws that we identified, we recommend a stretch factor of 0.45 percent.

And what we say in our report is that if the OEB believes that the OPG have similar efficiency opportunities as the distribution utilities and the custom IR, then we recommend that the OEB incorporate in-service additions from large capital programs in the stretch amount calculation.

But if the OEB decide to retain the narrow base that OPG is proposing, then we recommend additional 15 basis point adjustment that is from the 0.45 percent that we recommend based on the critique of the cost benchmarking study, and that will be bringing basically the stretch factor up to 0.6 percent because of the narrow base.

C. BOYLE: So recognizing kind of my lead-in here that DNNP and OPG might be treated separately, what is the stretch factor you are suggesting apply to DNNP, then?

S. WANG: We are not suggesting any DNNP-specific stretch factor because we didn't do a total cost benchmarking study for DNNP, and that is outside of the scope of our work. And we also recognize that during this rate term specifically, that DNNP units are only -- become in-service in later part of the rate term, and the Board may have precedent or policies that distinguish between ongoing projects like DNNP and completed projects. And so to the extent that that precedent or policy applied, then we will not object to DNNP being treated separately or consistent with that precedent.

C. BOYLE: Okay. Thank you. That is all the questions I have today.

S. WANG: Okay.

M. MILLAR: Okay. Thank you, Mr. Boyle. And thank you very much, Ms. Wang and Mr. McLeod.

I think that brings us to the end of our technical conference. Is there anything further from anyone?

A. STERNBERG: Nothing from us.

M. MILLAR: Okay.

We do have a number of undertakings that were given. There is a date, I believe, given in the PO, which I forget right now, but, Mr. Sternberg, I assume you will be working towards that date?

A. STERNBERG: Yes, we will.

M. MILLAR: Okay.

So if there is nothing further, we are adjourned, and thank you very much, everyone. Enjoy your weekend.

S. WANG: Thank you.

A. STERNBERG: Thank you.

--- Whereupon the proceeding concluded at 3:51 p.m.