(9:00 a.m.)
CHAIR:
Q. Good morning everyone.
MR. O'BRIEN:
Q. Good morning.
CHAIR:
Q. I've got my own preliminary matter this morning. So today, June 21st, is National Indigenous People's Day, so on this day we recognize and celebrate the history, heritage, resilience and diversity of Indigenous Peoples across Canada. So before we resume with the cross of Dr. Booth, I'll provide a land acknowledgment as demonstration of respect for the Indigenous Peoples and their past and present contributions to this province. We respectfully acknowledge the land which we gather and the ancestral homelands of the Beothuk whose cultures have been lost forever, they can never be recovered. We also acknowledge the island of Ktaqmkuk as the unceded traditional territory of the Beothuk and the Mi'kmaq. And we acknowledge Labrador as the traditional and ancestral

homelands of the Innu of Nitassin, the Inuit of Nunatsiavut, and the Inuit of NunatuKavut. We recognize all First Peoples who were here before us, those who live with us now, and the seven generations to come. As First Peoples have done since time immemorial, we strive to be responsible stewards of the land and to respect the cultures, ceremonies, and traditions of all who call it home. As we open our hearts and minds to the past, we commit ourselves to working in a spirit of truth and reconciliation to make a better future for us all. Okay, so it's back to Mr. O'Brien.
MR. O'BRIEN:
Q. Than you Mr. Chair. Good morning Dr. Booth.
DR. BOOTH:
A. Good morning, Mr. O'Brien.
MR. O'BRIEN:
Q. Okay, I think we left off finishing the CAPM model yesterday, so I'm going to move just to the dividend discount model and ask you a few questions about that this morning. I only have a couple of questions on top of that that I want to cover, so hopefully we

can get you out of here earlier than lunch, depending on what other questions are around. I probably have about 45 minutes of questions and answers, I would expect.
DR. BOOTH:
A. My flight is at 7:30, Mr. O'Brien, so I'll be quite happy to spend the whole afternoon here as well.
MR. O'BRIEN:
Q. Glad to hear. Okay, so one of the other models, I guess that you looked at in your assessment is the dividend discount model, I believe you call it, was it the Gordon Model, is that what it was?
DR. BOOTH:
A. That's right, so it was invested by Professor Gordon at the University of Toronto and first used in a New York City application in the early '50s.
MR. O'BRIEN:
Q. Okay, and I'm going to ask if we can bring up Dr. Booth's direct at page 53, and I'm not sure what the pdf is, but if we could bring that up. And we go to the bottom of the page, right. And I just want to get a

bit of context of how you're using it. You had given us some testimony yesterday or the day before to indicate that you previously used to use it and if I understood, got away from using it at some point and I just want your answer here, how do you judge risk premium versus DCF estimates. You indicate there you "traditionally viewed the DCF estimates as checks on my CAPM estimates, since in my view, CAPM estimates have usually been in the right ballpark." And if we can scroll down to the next page, "However, the recent very low long-Canada bond yields forced me to re-evaluate this and look at what drives the difference between the DCF and simply CAPM estimates. This is because they should be consistent." So I guess the first question I have for you in this particular case, did you feel that your CAPM estimate was not in the ballpark?
DR. BOOTH:
A. That comment is, as it goes on to discuss, using the actual bond yield, not the 3.8 percent that I used and that's a discussion of when the DCF model sort of fell out of

favour and when it was I favour and then it fell out of favour and we used the risk premium, and then the risk premium has come under a serious question basically for the last ten years because of the very low Canada bond yields. And in both cases we go on to say it's sort of a naïve application, it's a mechanical application of those two to see where the problems are, basically, and I do not use those naïve or simple mechanical applications.

MR. O'BRIEN:

Q. Okay, and I just want to make sure I understand what you're saying, so this comment is given in the context of the low Canada bond yield. In the context in which you have adjusted for that by using your 3.8 risk free rate, so you've adjusted for that low Canada bond yield by using that trigger value, what is the purpose of using the DCF in that context?

DR. BOOTH:

A. The DCF model is giving higher estimates—sorry, the naïve mechanical DCF model just uses the dividend yield on the TSX, the rate

of inflation and the real growth rate to come up with an estimate for the GDP, that's giving higher estimates if you mechanically use that, than if you mechanically use the CAPM which indicates where there's problems in terms of mechanically using either of the two formulas, because as I said, they're both estimating exactly the same thing and they should give the same answers, but they haven't been giving the same answers for different periods of time; whereas, so as a result, boards have favoured one versus the other at different periods of time.

MR. O'BRIEN:

Q. Okay, so would you have expected your DCF assessment to give higher estimates than the CAPM one?

DR. BOOTH:

A. If I didn't know anything mechanically applied, then the answer would be yes, but I do know what's causing the problem which is why I went through this analysis to indicate why I look at DCF. If you know one—for whatever reason, if you know that the CAPM is giving low estimates because of all of

this massive intervention bond market, then you say, well, how can I confirm that, and I've been looking at the DCF basically for the last ten years again, and as I said, I used to look at it all the time in the '80s and '90s and then it fell out of fashion for reasons that we can discuss. Now I look at it and it tells me, well, yes, the current mechanical application of the CAPM gives estimates that are too low and it confirms the need to look at the, what I regard as a fairer estimate of the long Canada bond yield to indicate the trade off of risk versus return.

MR. O'BRIEN:

Q. Would you agree with me that regulators are now, in Canada, starting to look more at the DCF models and giving more weight to them?

DR. BOOTH:

A. I think that's reasonably true. I mean, I give more weight to them and I have been looking at this for the last ten years. I tend to look at them as a check in terms of what is a reasonable rate of return, and as I have said before, many boards, just

because you couch your recommendation in terms of the CAPM or risk premium model, doesn't mean to say that that's a mechanical application. You look at the DCF or I look at the DCF and figure or try to estimate what is reasonable values to put it to a risk premium model, and you can always couch any estimate in a risk premium framework, which is what I do.

MR. O'BRIEN:

Q. Would you agree that, and I'm putting this out there because I'm not sure I know the answer, but DCF models having come into, I guess, are boards looking at them more and more as a function of looking at US utility proxies more and more?

DR. BOOTH:

A. That I can't answer. You're asking me what other boards do and I –

MR. O'BRIEN:

Q. I didn't know the answer and I'm asking if you do, if you do know the answer and the reason behind it is more or less that I see that US utilities do use DCF models more, commissions do use more as an assessment, is that a function here, we're using it in Canada more the fact that we're looking more at US utilities?

DR. BOOTH:

A. No, I don't think that's the case. I mean, it might be the case, I just never thought about that that the copying was going on in the United States. I mean, the FERC, for example, used to rely upon sustainable growth rates. We have never put such a heavy reliance on sustainable growth rates as the FERC, so they have moved to other methods of trying to—my understanding from Mr. Coyne is they've moved to other methods to try and find appropriate growth rates for the dividend discount model.

MR. O'BRIEN:

Q. Okay, and before I get to—and I do want to walk through your, I guess the adjustments or whatever adjustments or whatever approach you take with your dividend growth model, but just while we're on this topic of US utilities, and I gather from your testimony and I think that was fairly clear that you don't like using US utilities as a proxy

group, you're forced to do so in this particular scenario when you're looking at assessing ROEs because you have a limited group of comparables in Canada, is that fair?

DR. BOOTH:

A. Well I think it's totally accurate, I'm forced to do it and if the great economist in the sky, which is what we refer to as the global person that's running all of this, if they told me absolutely certain what the fair rate of return for Apple was in the United States, absolutely certain it's 10 percent, then would I use that in Canada? Of course I would, if I knew for sure, absolutely certain what a fair rate of return on anything is, then you take that and then you make adjustments to sort of bring it in to minus a benchmark, so to get to your point over the last 25 years the data that we've got in Canada has got poorer and poorer because of merges and acquisitions. I'm not voluntarily looking at US data for a whole variety of reasons; I'm forced to look at it. And you look at

that and then you say, well, if I'm certain that's the number for this thing, whether it's anything, whether it's for a tech company, whether it's for a water utility in the UK, whether it's for a gas company in Japan, if I knew for certain what that rate was, then I would use that and I would make adjustments to use it into Canada. So the question with Mr. Coyne is he's not made any adjustments. I think it's perfectly legitimate to try and come up with estimates if the data is better than the data is in Canada, as long as you then use judgment and you make adjustments for the fact that it is a different country.

MR. O'BRIEN:

Q. And what sort of adjustments do you make to the data?

DR. BOOTH:

A. Well to the US data?

MR O'BRIEN:

Q. Yeah.

DR. BOOTH:

A. I don't use the US market risk premium, the historic market risk premium, 6.47 percent

on the historic record because I know the US is the winner economy and the bond return reflects the fact that the US dollar and the US Treasury has been the base rate in the global economy, so I think that taking into a risk premium, market risk premium for Canada is not appropriate. Similarly when I look at Canada, we had all sorts of restrictions on our portfolios. I don't know whether you have a RSP, Mr. O'Brien or a pension fund, but we had restrictions, we couldn't invest more than 10 percent in the United States for long periods of time. Then it went to 20 percent, now we're allowed to buy any juris security that we like, so that has clearly changed the relevance of the United States in terms of freeing up Canadian capital to invest in the United States. And as I said, Canadian bond yields used to be higher than the United States because we were short of capital in Canada. We used to tell our provinces borrow in US dollars because we didn't want them to borrow in Canadian dollars because it would push up interest rates. Now, we're in a much better position than the United States in term of government debt, the GDP, and the rate of supply and demand in the capital market. So I do not think it is appropriate just to average things, not when I know or my judgment is that a market risk premium in the US, the historic data is too high and the market risk premium in Canada the historic data was too low.

MR. O'BRIEN:
Q. So you use your judgment in adjusting that?
DR. BOOTH:
Q. Mr. O'Brien, I have a Ph.D in Finance, I got a Masters in Economics, I've been teaching for 46 years. I use my judgment, yes. Everything I do I use my judgment. I can't reject the fact that I've been teaching this material and doing research on this for 46 years.
MR. O'BRIEN:
Q. I'm not suggesting you shouldn't use your judgment, I'm just asking the questions.
DR. BOOTH:
A. It's impossible not to use my judgment, Mr. O'Brien.

MR. O'BRIEN:
Q. All right. When Ms. Greene had asked some questions of Concentric about the difference between, when we're looking at US utilities, where we are today versus 2016 when the Board ordered an adjustment of 50 to 100 basis points to US utility data should be applied when considering that in the grand scheme of what an appropriate ROE is. Then Mr. Coyne gave some evidence that there's been some change since 2016 in that regard. And I just want to ask you just your commentary on some of that evidence. For example, he said that, he gave a number of responses, he said there's more of an integration in the US in Canadian capital markets now, and you indicated somewhat that's the case, but I don't think you went as far as to agree with him wholeheartedly on that, is that fair?
(9:15 a.m.)
DR. BOOTH:
A. I think that's fair. What I would say is there's certain components of the capital market has always been perfectly integrated.

The money market, for example, has always been perfectly integrated. The bond market and the equity market was less integrated because of portfolio restrictions, and the utility market has been extremely segmented because we get a tax benefit for investing in Canadian companies that pay a dividend. We don't get any tax benefits for US companies paying a dividend, we pay the full marginal tax rate on that, and I own US shares, I'm paying full tax rate on that, exactly as if they're interest, and that doesn't occur for dividends and I'd have to say if I was to buy a Canadian security right now and wanted exposure of utilities in the United States, I wouldn't buy Duke Energy, I'd buy Emera or I'd buy Fortis because one of the wrinkles in the tax code is they can buy foreign utilities, US utilities and yet I still get the dividend tax credit, but if I buy foreign utilities, I don't get the dividend tax credit. So when we look at that, there has been movement in terms of—and I tell my students, never bet against the United States. I

mean, it's a big economy, it's very competitive and they really believe in competition, so I would never invest a hundred percent of my money in Canada and I never have, but when you look at that, certain segments of the capital market are more integrated than others, it's what we call a partially segmented capital market, and utilities, I noticed, I can't remember if it was in Mr. Coyne's evidence, he was saying Newfoundland competes for capital. No, it doesn't, it gets its equity from Emera—sorry, from Fortis and I don't think is qualified as an issue of debt in the United States. I think it raises most of its money in a private debt market from Canadian institutional buyers, which are basically insurance companies. So most Canadian—and the Alberta Utilities Commission has said this as well, they said most of them are registered issuers in Canada in the debt markets and the equity comes through Fortis.
MR. O'BRIEN:
Q. And those institutional buyers would also

have the opportunity to buy in the US versus Canada?

DR. BOOTH:

A. Yes, well they do buy in the US versus Canada and as I said, I mean, when I first did this we had all these restrictions and the Canadian market was a lot more segmented, the overall market was a lot more segmented than it is now, that's absolutely correct.

MR. O'BRIEN:

Q. And I thin that's where I was going with it, and the other issue that he raised was that there are more and more utilities that have cross-boarder operations, you'd agree with me on that?

DR. BOOTH:

A. Absolutely, we've got three, Algonquin Power, Emera and Fortis that five years ago they were Canadian, but when we look at the analyst—and I fact I reference in my analyst reports that they've got more and more of their earnings are coming from the US.

MR. O'BRIEN:

Q. And that's different from 2016.

DR. BOOTH:

A. That's correct, and Ultra Gas for example which is in Mr. Coyne's sample of Canadian firms, they have no Canadian regulated business, they have some mid-stream work which is gas prices in plants and stuff, but all of its rate of return regulated T&D business is in the United States. It's not—so when you look at that, it is invested in T&D utility business, but it's American T&D utility business, not Canadian.

MR. O'BRIEN:

Q. And we talked about already there's less and less comparator utilities in Canada in 2016 for Newfoundland Power, that's fair?

DR. BOOTH:

A. That's absolutely correct, and I mean I can no longer use Enbridge, I can no longer use TransCanada because they're pipes and much riskier. So we have a—I mean, this is a growing problem that when you look at this and I think I say this in my testimony, I rely as much on a ranking, a hierarchy, money markets are the lowest risk, lowest rate of return. Long Canada bonds a little

bit riskier, higher rate of return but its interest is highly taxed. Preferred shares, a little bit riskier, they're more like junk bonds than they are equity, but their rate of return is higher. Then at the top we've got the Canadian equity market return and the US equity market return and the question is where do you put Newfoundland Power in that ranking? They're clearly riskier than the long Canada bond, they're somewhat riskier than the preferred shares, but I don't think they're as risky as the overall equity market.

MR. O'BRIEN:

Q. So the answer is yes to that?

DR. BOOTH:

A. The answer is yes. I'm being forced because of decca limitations, dragged into looking at other things.

MR. O'BRIEN:

Q. Okay, and the other thing that is –

DR. BOOTH:

A. And the judgment is more important there if you wanted to add that.

MR. O'BRIEN:

Q. The other thing that Mr. Coyne had indicated was that over time credit rating agencies have come to understand more that regulatory environments in the US and Canada are not dissimilar, and I understood from your evidence and you did make some unflattering comments concerning the regulatory environment in the US and in terms of what level of evidence they would require in a cost of capital hearing, how lengthy the cost of capital hearings would be compared to Canadian ones, that sort of thing, you did make some commentary on that. Now, you prefaced it by saying this is hearsay evidence.

DR. BOOTH:

A. Absolutely, it's come up in Canadian hearings and US witnesses have said that.

MR. O'BRIEN:

Q. Have you presented before any US regulatory commissions on cost of capital?

DR. BOOTH:

A. No, you have to understand, not invented here, it's almost engraved into the United State's mind. My text book was very well received in Canada and the Canadian publishers, John Whiley, said we'll Americanize it, it was the first ever Canadian textbook that has been "Americanized" into the US market. How many did they sell? 235. The Americans—and I've got another very good colleague, John Hull is one of the world's derivatives expert. He wrote a book on derivatives that was basically mathematic and he was bombarded with questions, is this American or is this Canadian? I say it's math, so the Americans, look, and when I was a graduate student –

MR. O'BRIEN:
Q. Is that what you're doing?
DR. BOOTH:
A. Well I'm just saying the American attitude –
MR. O'BRIEN:
Q. Aren't you doing the opposite?
DR. BOOTH:
A. Doing what?
MR. O'BRIEN:
Q. When you say this is Canada, not American?
DR. BOOTH:

A. No, look, every Canadian knows more about America than they know about Canada. I mean, Rick Mercer, I mean I'm not—this is just a joke, but Rick Mercer used to go to the American, Harvard and ask them about Canada and got these ridiculous answers. I mean, that's just a joke, but there's deep truth there. When I was in—a graduate student, you'd get the weather and they'd have a map of the United States and it would just, nothing beyond the top of the United States. Canada didn't exist. In the American mind, we have to accept this. The American mind, Canada is there but they don't think deeply about it, but Canadians have to think deeply about the United States.
MR. O'BRIEN:
Q. Okay, so all jokes aside when we're talking about the regulatory systems in the US and Canada, you agree with me that Concentric has experience in both, significant experience in both. You only have experience in Canada. That's a fair comment?

DR. BOOTH:
A. That's correct.
MR. O'BRIEN:
Q. Right, so when the Board weighs how there's been changes, if any in terms of the regulatory environment or experience in the US versus Canada, and Concentric has given evidence on that point; whereas you're giving hearsay evidence, they're giving direct evidence. The Board can give more weight to Concentric's on that point?
DR. BOOTH:
A. I would disagree with that. When I said yesterday lawyers are a different people or words to that effect, it's the fact that we come with a cultural mindset for the things that we're familiar with and the things that we learn. Mr. Coyne came into Canada and said point blank that Canadian regulators were not meeting the fair return standard. I mean, he actually produces a table before the Alberta Utility Commission saying that as a fairness deficit, you're not giving fair ROEs. What was his basis before he even knew anything about Canada? His basis

was US allowed ROEs, so if you tell me he's an objective analyzer of what goes on in Canada, the objective evidence is when he came to Canada, he didn't know anything about Canada and yet he had the strength to say our regulators were not giving allowed ROES that were consistent with the fair return standard.
MR. O'BRIEN:
Q. So we should accept your word and on top of the fact that your evidence is hearsay evidence versus the evidence of Concentric who has had direct evidence and being involved in both jurisdictions?
DR. BOOTH:
A. I have not presented evidence on US regulatory practice. All I know about US regulatory practice is what I've heard in hearings. For example, in the TransCanada hearing there was evidence that TransCanada was not accepted by FERC in a pipeline proxy group.
MR. O'BRIEN:
Q. That evidence is not on this record.
DR. BOOTH:

A. No, no, look, I haven't put any record of evidence on this record, I haven't said anything about the US regulatory environment, except and I said it was hearsay. Hearsay, you're a lawyer, hearsay is not evidence in court, I thought, but if you want to treat it as hearsay evidence and compare mine to Mr. Coyne, we have direct evidence out of Mr. Coyne's mouth that he regarded the allowed ROEs in Canada as being unfair and unreasonable, without even coming to Canada to so an assessment. Now, is that evidence that he was in a position to make a judgment then? I don't think that it was. He was just looking at US evidence and saying, well Canada should be the same, there's a fairness deficit because they're not the same. So I suggest to you that he may have learned since then, but his bias, his opinion coming into Canada is the same as what it is now.

MR. O'BRIEN:

Q. Doctor, would you agree with me that Canadian regulators, the BCUC, for example the AUC, have started using US data, subject

to Ms. Greene's comment to Mr. Coyne with the suggestion that there was some remaining discretion in the Board as to how they weigh it, but they've started using it without a specific sort of adjustment for the US data, such as the 50 to 100 percent adjustment basis points that was applied back in 2016 before this Board.

DR. BOOTH:

A. That's right and the BCUC made that same adjustment.

MR. O'BRIEN:

Q. But not in the most recent one.

DR. BOOTH:

A. No, that was in 2013, I believe it was, the same time as here.

MR. O'BRIEN:

Q. Right, but 2023 they didn't make that adjustment.

MR. BOOTH:

A. That's correct, well they didn't make an explicit reference to that adjustment, whether that adjustment was on the mind of the Board in terms of the Board's consistency with past Board decisions, I

don't know. I don't know what Board members talk about when they huddle and decide to come up with a fair rate of return, but I would say the problems I face are no different to the problems that the Boards face, and it is clear, if you read the BCUC and the AUC decisions, they have been forced to look at US evidence and I would say with some reluctance. I wouldn't put it any stronger than that because they have to look at the evidentiary basis.

MR. O'BRIEN:

Q. Doctor, I wonder if we could turn to, we could bring up page 127 of your report, it's Schedule 9. And this was a table you talked about in your direct, the earned ROEs versus Newfoundland Power. Just have a couple of questions on that just for clarification. You've got 14 companies in this sample, where do those companies come from? Did you put together that sample yourself?

DR. BOOTH:

A. They're all companies that have been used by expert witnesses in the United States in previous hearings.

MR. O'BRIEN:

Q. Okay.

DR. BOOTH:

A. And the way I look at it is, unlike Mr. Coyne, I think (unintelligible) quotes samples by cutting firms out of the sample. Personally, I don't think it makes a lot of sense because if you look at these samples that people use, the firms come in and they go out every few years, so it may be that it makes sense for looking at the equity cost of betas, but I don't think it makes any sense to looking at the rates of return because what happens is you look at, one sort of instance like a drop in the bond rating or a drop in the share price causes a dropout of one of their samples and two, three years later, the company is back in the sample.

Duke Energy, for example, has been in and out of these samples. So, when I look at it, I like to present all the data that's available that I have that's part of the samples.

(9:30 a.m.)

MR. O'BRIEN:
Q. So, you do no screening whatsoever?
DR. BOOTH:
A. I don't do any screening.
MR. O'BRIEN:
Q. So, all of these companies, that's the only data that's available out there?
DR. BOOTH:
A. No, there's even more data than that.
MR. O'BRIEN:
Q. Well, why did you screen then?
DR. BOOTH:
A. Because these – well, because these are the ones used by US witnesses.
MR. O'BRIEN:
Q. Oh, the ones used by US witnesses, but you didn't do any sample screening yourself?
DR. BOOTH:
A. I do not want to get dragged into the specifics of a US company, and I've said this to Mr. Kelly. I don't want to be cross-examined on why Duke, why not Entergy or why Pinnacle West and not OGE. I prefer to rely upon US witnesses to do that because I don't want to be cross-examined on the

detail of these companies. But these are the companies that are used in samples by US witnesses coming into Canada.
MR. O'BRIEN:
Q. Do you know how the ROEs are calculated?
DR. BOOTH:
A. Yeah, they're calculated by their accountants in their financial statements.
MR. O'BRIEN:
Q. Do you know – but, you haven't looked at how they're – do you know if this is at the operating or holding level?
DR. BOOTH:
A. Oh, it's the holding company level. It's as reported in their financial statements.
MR. O'BRIEN:
Q. And so -
DR. BOOTH:
A. And it's as reported by – in the quantitative equity reports by -
MR. O'BRIEN:
Q. Do you make any adjustments to make sure they're comparable?
COFFEY, KC:
Q. Could he just finish that?

MR. O'BRIEN:
Q. I'm sorry. I thought he was finished.
DR. BOOTH:
A. No, I don't feel – Value Line makes adjustments. S&P makes adjustments. But that's imposing judgment, Mr. O'Brien. I prefer to rely upon the data as reported in the financial statements and as reported to investors, and this comes from Morningstar. It's not my ROE. These are the actual ROEs reported in their financial statements and as reported by Morningstar.
MR. O'BRIEN:
Q. So, you don't consider whether or not they're comparable to Newfoundland Power?
DR. BOOTH:
A. What do you mean, the accounting?
MR. O'BRIEN:
Q. In any way, shape or form. You just take whatever is used from the other witnesses, put it here. You don't look at how it's calculated. You don't make sure it's comparable to Newfoundland Power. For example, there's four companies here that are not in Concentric's proxy group.

DR. BOOTH:
A. That's right, they're not now in Concentric's.
MR. O'BRIEN:
Q. Yeah, they're not now -
DR. BOOTH:
A. They have been in Concentric's in previous hearings.
MR. O'BRIEN:
Q. But they're not now.
DR. BOOTH:
A. Yeah, they've cut them out.
MR. O'BRIEN:
Q. They've cut them out. So, they've done a screening process.
DR. BOOTH:
A. Yeah.
MR. O'BRIEN:
Q. And they've cut them out, and I'm going to suggest to you -
DR. BOOTH:
A. Which is judgment.
MR. O'BRIEN:
Q. It's judgment, yes. You've – but you're not exercising judgment in this case?

DR. BOOTH:
A. Absolutely.
MR. O'BRIEN:
Q. You just said you weren't going to exercise judgment.
DR. BOOTH:
A. That's what I said, absolutely, I'm not exercising judgment.
MR. O'BRIEN:
Q. Okay, all right. Okay. So, I just wanted to make sure we were on the same page.
DR. BOOTH:
A. Now, look -
MR. O'BRIEN:
Q. If you took the four companies out that were not there, I'm going to suggest to you your average ROE is actually going to be up around 9.45, not 9.19.
DR. BOOTH:
A. Okay. Well, look, if you take some of the big ones out, some of the ones that are excessive out, that's – if you take the high ROE numbers, your average goes down. That's simple –
MR. O'BRIEN:

Q. I get the point.
DR. BOOTH:
A. That's math. That's high school math.
MR. O'BRIEN:
Q. My point is -
DR. BOOTH:
A. Well, it's grade school math.
MR. O'BRIEN:
Q. - is Concentric has gone through a process of screening. You have not.
DR. BOOTH:
A. I think the process of screening is extremely dubious. If it's got any value, it's got some value in terms of estimating the betas possibly, because the betas are affected by market values and the screens are mainly a result of looking at market values, looking at whether they were involved in M&A activity or whether they were involved in – they spotted a price or whether they cut the dividend. This is not the same data or the same principles that Concentric uses to create their samples. That would be my assessment. This is the overall assessment of what's going on in the

United States. Whether it's comparable to Newfoundland Power, I've got Newfoundland Power there. I'm saying that all of these firms are not comparable to Newfoundland Power. They all have generation, except one, and this is the data that US utilities witnesses had used before and then, for whatever reason, they cut one out and they add one and then they add it back again and they cut another one out. I prefer to put all of the data out there and let the Board think about what's going on.
MR. O'BRIEN:
Q. Right. So, you don't consider whether or not any of these are comparable to Newfoundland Power?
DR. BOOTH:
A. I don't think any of them are comparable. Perhaps -- I think it's Eversource that doesn't have any generation.
MR. O'BRIEN:
Q. Okay.
DR. BOOTH:
A. But then if you look at the ROE for Eversource – where is Eversource?

COFFEY, KC:
Q. Third row.
DR. BOOTH:
A. It made – it had a loss in 2023.
MR. O'BRIEN:
Q. Yeah.
DR. BOOTH:
A. They lost 2.23 percent. Duke, which is in Mr. Coyne's sample, it's highest rate of return, 8.15 percent, and that's not just one year, it's throughout it's 12-year history, it barely makes seven percent. So, when you look at this, I think this is information that's useful to the Board in terms of what these so-called comparable utilities – and you can take one or two out if you don't like them, but the variability in these ROEs is way higher than the variability of the ROEs of Newfoundland Power.
MR. O'BRIEN:
Q. And I'm going to suggest to you, Doctor, that your evidence is that you don't like using US companies. You don't want to use US companies. And this is how you present

it so that the Board shouldn't use US companies.

DR. BOOTH:

A. No, that is not correct. That's not correct at all. In fact, that's an assertion on your part.

MR. O'BRIEN:

Q. It is an assertion on my part because you don't do a screening process. You don't consider what's comparable. You throw out as much as you can, not a full sample as you suggest that – that maybe is what should be done, but you don't look at what is comparable to Newfoundland Power.

DR. BOOTH:

A. None of them are comparable with Newfoundland Power.

MR. O'BRIEN:

Q. Best proxy. You don't do -

DR. BOOTH:

A. Best -- No, look, that's totally incorrect. As I said, I do not want to get involved in these companies because it's not really even looking at what it is now, it's looking at what were they in 2011 or how comparable

were they in 2011 or 2012. That requires a depth of knowledge of these companies that I don't have and I'm perfectly willing to accept that.

MR. O'BRIEN:

Q. All right.

DR. BOOTH:

A. All I'm saying is these are the companies that have been used as proxies for electric companies in Canada by different witnesses over the last ten years.

MR. O'BRIEN:

Q. Okay.

DR. BOOTH:

A. So, this is the sample. Am I going to include firms that have never been used by US witnesses in Canada? No.

MR. O'BRIEN:

Q. You're the expert, Doctor, not me. So, I don't know.

DR. BOOTH:

A. Well, you're making assertions about my behaviour, so you obviously have an opinion on this.

MR. O'BRIEN:

Q. I'm asking questions, Doctor. That's it. Maybe we can move on to the DCF model, move back to that. I just want to get a – before I finish my questions, get an idea as to how you put together your model and how that model informs you in this case. So, I want to ask a few questions on that.

DR. BOOTH:

A. Sure.

MR. O'BRIEN:

Q. Okay. So, I wonder if we could – you used – we went through that you use a DCF model, we understand that from your direct evidence, in order to inform your CAPM results.

DR. BOOTH:

A. That's correct.

MR. O'BRIEN:

Q. All right, okay. Concentric talked about a bunch of different sorts of DCF models, but relying more on the multistage model, I think is what their evidence was. Can you tell me is there a name on the model you use?

DR. BOOTH:

A. Mine is the dividend discount model.

MR. O'BRIEN:

Q. Okay. What is -

DR. BOOTH:

A. Or the Gordon growth model of the DCF model. That's what it's commonly referred to.

MR. O'BRIEN:

Q. Okay. So, there's not a multistage, a yield growth, constant growth. There's not a different type of DCF?

DR. BOOTH:

A. No. Just to backup.

MR. O'BRIEN:

Q. I'm just trying to get myself -

DR. BOOTH:

A. Okay, no, that's fine. I said let's just backup. The DCF model is designed to put us in a position of an investor.

MR. O'BRIEN:

Q. Right.

DR. BOOTH:

A. And it's designed to calculate their discount rate. So, we project a stream of cash flows.

MR. O'BRIEN:

Q. Yeah.

DR. BOOTH:
A. And we have the current price and we say what's the discount rate that makes all of those series of cash flows equal to the market price, and that's – we're trying to act like the market getting that discount rate.
MR. O'BRIEN:
Q. Right.
DR. BOOTH:
A. So, that is the rate that the – or it's trying to estimate the rate that the investor is using to value a stream of cash flows.
MR. O'BRIEN:
Q. Right.
DR. BOOTH:
A. Just as the yield to maturity on a bond is the rate that the market's using to value the stream of coupon payments on a bond. So, the question then is we don't have a contractual series of coupon payments the way we do on a bond. We have to project this stream of dividend payments and that's extremely difficult. Most of the time, we

can only go out five years in basically forecasting dividends or forecasting pro forma financial statements. But for equities, there's no time limit. So, we have to go on "indefinitely" into the future. So, the way we derive the dividend discount model is – it's the way Mike Gordon derived it in the 1950s was we assume a low-risk company with a stable dividend and that dividend grows at a constant rate forever. Now, I don't know whether there are any engineers in the room or mathematicians, but if that growth rate goes on forever, we can use the formula for a geometric series and create the value for that and that gives us the dividend growth model. It assumes there is a constant rate forever, for infinity, for eternity, in order to generate a compact formula to get the value of a stock, and that's why I explained it's not appropriate for the vast bulk of companies because they're not that stable.
MR. O'BRIEN:
Q. That's a limitation with that -
DR. BOOTH:

A. That's the limitation of the dividend discount model.
MR. O'BRIEN:
Q. Yeah.
DR. BOOTH:
A. So, instead, we say well, perhaps the dividends that we – we know a lot about it. It's got excess profits. They can last for five or six years and then competition would drive those profits down, and we assume another growth rate after then and then they – 20 years time, 10 years time, they might be just a typical company. And I tell my students, I say, "what's the ambition of every small fast-growing company? Well, it's to grow up to be a big, slow-growing company." They want to become a mature company earning good profits. That's the objective of every small growing company. So, we can't apply the dividend discount model for small growing companies. It doesn't satisfy the assumptions, and as I think I said in my direct, I have problems with the engineers in my class because they look at the dividend discount model, see

that it's a good equation and they torture it to try and make it fit situations where it doesn't work. And that's when we say you have to use another model.
MR. O'BRIEN:
Q. So that -
DR. BOOTH:
A. And there's a variety of different models for -
MR. O'BRIEN:
Q. Right, and that's what I was talking about earlier.
DR. BOOTH:
A. - dividend discount models.
MR. O'BRIEN:
Q. There's a variety of models.
DR. BOOTH:
A. Yeah.
MR. O'BRIEN:
Q. And that this multistage model that Concentric uses, that accounts for that constant growth limitation, doesn't it?
DR. BOOTH:
A. It certainly mitigates -
MR. O'BRIEN:

Q. Right, that's the point -
DR. BOOTH:
A. - any problems in terms of excessive growth rates, yes.
MR. O'BRIEN:
Q. That's the point of that model?
DR. BOOTH:
A. That's correct.
MR. O'BRIEN:
Q. Right, okay, and that leaves you -
DR. BOOTH:
A. And there's also what we call a finite growth model.
MR. O'BRIEN:
Q. Right. So, that leaves you with your concern -- if I'm reading this correctly, your concern is the analyst bias that's left?
DR. BOOTH:
A. That's correct.
MR. O'BRIEN:
Q. Okay. So, when we come to -
DR. BOOTH:
A. It's why, incidentally, Mr. O'Brien, I mainly rely upon the dividend discount model

for the economy as a whole. Because one firm's losses are another firm's gains and you look at aggregate in the economy, dividends and earnings basically grow at the same rate as the normal growth rate in the economy.
MR. O'BRIEN:
Q. Right. So, we're on the same page, I think, and I think I understand with respect to that, and I'm going to ask you, just if we could bring up page 69 of – and I just want -- Dr. Booth's direct. I just want to get your comment. And this is a chart, I think, and it's in a schedule as well, but this talks about or shows your sustained growth approach to the dividend discount model and if I'm reading this correctly, so you've got all of your US utilities here. The column there, K, that would be that shows the average of 8.84 there at the bottom, that's the analyst growth assessment. Is that right?
DR. BOOTH:
A. That's right. If you accept the short-term analyst growth forecast that's been going on

in perpetuity -
MR. O'BRIEN:
Q. Right.
DR. BOOTH:
A. - then that plugging it into the constant growth model, those are the estimates we would get.
MR. O'BRIEN:
Q. So, is this the constant growth model or is this the multistage model?
DR. BOOTH:
A. Constant growth model.
MR. O'BRIEN:
Q. Constant growth, okay. Instead of using that, you use the sustainable growth over here. So, we move over a couple of columns. Because if you used your 8.84, you end up with an ROE, if you put on -
DR. BOOTH:
A. At 9.4, something like that.
MR. O'BRIEN:
Q. 9.34, if you put your floatation on, right?
DR. BOOTH:
A. Yeah, that's right.
MR. O'BRIEN:

Q. That's what you end up with. Instead of doing that, which is what the model suggests, you make an adjustment to the model?
DR. BOOTH:
A. Well, the model suggests you use the long-run infinite growth rate.
MR. O'BRIEN:
Q. Yeah.
DR. BOOTH:
A. And that's not a short-run point dividend.
MR. O'BRIEN:
Q. But that's what the model is.
DR. BOOTH:
A. No, no, let's be clear here. The model use a dividend growth rate in perpetuity.
MR. O'BRIEN:
Q. Yeah.
DR. BOOTH:
A. Not a short-term earnings growth rate.
MR. O'BRIEN:
Q. No.
DR. BOOTH:
A. So, that data is incompatible with the dividend growth model. It's called the

dividend discount model, the dividend growth model. It's not called the earnings growth model.
MR. O'BRIEN:
Q. So, you – but you testified yesterday you'd be up to the 9.34. Isn't that what the model would get you to?
DR. BOOTH:
A. That's what the model, the dividend growth model here would give you -
MR. O'BRIEN:
Q. Right.
DR. BOOTH:
A. - if you actually used the analyst earnings growth forecast.
MR. O'BRIEN:
Q. Right.
DR. BOOTH:
A. Correct.
MR. O'BRIEN:
Q. But you use a sustained growth instead.
DR. BOOTH:
A. That's right.
MR. O'BRIEN:
Q. And is that an adjustment, a personal

adjustment? It's an adjustment that is used by economists regularly in calculating ROE or using this model? Where does that adjustment come from?
(9:45 a.m.)
DR. BOOTH:
A. Comes from Professor Gordon who developed the Gordon growth model.
MR. O'BRIEN:
Q. So, the Gordon growth model itself, is that something normally used before regulatory bodies when a DCF is -
DR. BOOTH:
A. D over P plus G (phonetic), yes.
MR. O'BRIEN:
Q. Yeah? So, the 2 -
DR. BOOTH:
A. That's the model that was – the standard model before we started using risk premium models in Canada. It's the model I used in the 1980s and 1990s because we have significant inflation and growth was relatively easy to forecast.
MR. O'BRIEN:
Q. So, this suggests that each one of these

companies will have a sustained growth of 2.28?
DR. BOOTH:
A. No, it suggests that's the average.
MR. O'BRIEN:
Q. The average, yeah.
DR. BOOTH:
A. That's the historic average, yeah.
MR. O'BRIEN:
Q. Yeah, okay, because there's certain ones in there that you'd end up with a negative growth and that sort of thing.
DR. BOOTH:
A. That's right.
MR. O'BRIEN:
Q. To test the average.
DR. BOOTH:
A. That's the problem. It's because we're looking at – I mean, the principle is simple. Utilities basically pay out about two-thirds of their earnings as dividends. So, they're high dividend stocks. One-third or so gets reinvested. So, the question is how does the earnings and the dividends grow when one-third of the money is plowed back

into the business? And we call that the plow-back ratio as well as retention ratio. If they earn ten percent on the money that's reinvested and one-third is reinvested, then they get 3.3 percent growth. Now, in order to get the analyst growth forecast of four or five percent, almost six percent -- well let's just take six percent as being the median growth rate, just for the mathematical simplicity. If you take six percent as the analyst short-term growth rate and say that that goes on forever, and all they're doing is plowing back one-third of their earnings, well, six percent divided by one-third means that the analysts are actually assuming they're going to make an 18 percent rate of return on the funds reinvested. And when you look at the return on equity of those funds – well, only one firm, Entergy made – where is it?
MR. O'BRIEN:
Q. 14 –
DR. BOOTH:
A. 16.69 percent ROE.
MR. O'BRIEN:

Q. Right.
DR. BOOTH:
A. But that's assuming that all of these firms can actually make 18 percent, and the regulators underlying these businesses that allow rates of return, that allow the holding company to earn a rate of return of 18 percent. Now, I'm using that because that indicates the degree of magnitude of the bias in analyst forecast that implicitly when they come up with a five to six percent growth rate, based upon the short-term earnings forecast, what's consistent with the sustainable growth model is they're basically assuming 18 percent return on equity, which is optimistic shall we say.
MR. O'BRIEN:
Q. So, is the Gordon model that's normally – because you indicated earlier the DCF models are generally higher. Is the Gordon model itself a sustained growth or a constant growth model?
DR. BOOTH:
A. It's both. Basically it's taking the sustainable growth rate and applying that as

a constant growth rate. And I will tell you, the first time I ever did any regulatory work, I actually prepared exhibits for Mike Gordon before the Interstate Commerce Commission in the United States and as his research assistant, I estimated the sustainable growth rate and he used it in his testimony before the ICC. So, that's the stand – was – I mean, this was – Mike built his reputation, and he was the president of the American Finance Association, on the fact that growth rates have to come from internal to the firm's operations. How much of their earnings they plowback and reinvest and what sort of rate of return are they going to earn on those earnings. That's pretty much basic stuff.
MR. O'BRIEN:
Q. So, is your evidence you do not make any adjustment to the model to use sustainable growth versus constant growth or is it you making that adjustment because that's the way the model should work in your mind?
DR. BOOTH:
A. No, I've not made any adjustments. All I've

done is said, well, look, these are the Be's, the retention rates, the plowback rates. These are the rates of return the firms are actually earning. Use a median to take out extreme values, such as the negative values, and you get a sustainable growth rate significantly below these analyst growth rates and the analyst growth rates, I don't know whether I discussed it before or after, are known to be biased. When we look at sustainable growth rates, we get a handle on what is the magnitude of that bias.
MR. O'BRIEN:
Q. Do you look at the actual growth rates historically at all to check your figures?
DR. BOOTH:
A. No, I don't.
MR. O'BRIEN:
Q. And do you know whether or not those actual growth rates exceed the sustainable growth rates you've got in your model?
DR. BOOTH:
A. No, most of the research that – in fact what Mr. Coyne references, they start – the

analyst forecasts are better than historical growth rates. There's a forecast because we're looking at what's going to happen in the future, not what's happened in the past.
MR. O'BRIEN:
Q. And so, Mr. Coyne would also say that your – in his report, he would say that with these American companies that he's used, the actual dividend yield was significantly higher, more than double what your sustainable growth rate was. Would you expect the sustainable growth rate to reduce by half?
DR. BOOTH:
A. No, I'm just talking about the sustainable growth rate, not the past growth rate. The sustainable growth rate depends upon the plowback rate and the rate of return on investment. We had one company in Canada called TransAlta that manipulated its growth rate by increasing its dividend payout rate. So, every year it increased the dividend payout and its dividend growth rate was far in excess of anything that could be conceived of as the future growth rate. In

fact, it ended up last time I looked, it was paying out over 100 percent of its earnings, its dividends -

MR. O'BRIEN:
Q. How do you come up -
DR. BOOTH:
A. - to support the high growth rate.
MR. O'BRIEN:
Q. Sorry, I didn't mean to cut you off. How do you come up with your sustainable growth rate?
DR. BOOTH:
A. I take – I do the – that data that's in the quarterly, the QERs, the quarter – produced by Morningstar, I use the return on equity that they use and I use the dividends and the earnings from – latest dividends and earnings from Yahoo to work out the retention rate and I use as many of these companies as possible when I calculate the typical or median current plowback rate, retention rate, and the median return on equity to calculate the median sustainable growth rate.
MR. O'BRIEN:

Q. Is there any judgment applied to that? Is there -
DR. BOOTH:
A. Well, not in the statistics; the statistics are what they are.
MR. O'BRIEN:
Q. And when you started this process, when you said, "now I'm going to use the DCF model or the Gordon model with a sustainable growth rate", did you anticipate you were going to get a result anywhere near what your CAPM figures were?
DR. BOOTH:
A. Now, you have to qualify that. The CAPM figures including the 3.8 percent minimum or the CAPM using the current Canada bond yield?
MR. O'BRIEN:
Q. The 3.8 percent.
DR. BOOTH:
A. Using the 3.8 percent, I would have expected the sustainable growth rate to be below the analysts' earnings forecast estimate for the dividend discount model. I had no priors on what would come out from the analysts' based

constant growth model. I didn't know whether that was going to be higher or lower than my CAPM forecast, and as you know, you can see it here, it's higher. I didn't delete it because it was higher and I didn't include it because it was higher.

MR. O'BRIEN:
Q. No, that wasn't my question.
DR. BOOTH:
A. I included it because I always include it.
MR. O'BRIEN:
Q. Yeah. My question was: you used the DCF model as a check?
DR. BOOTH:
A. That's correct.
MR. O'BRIEN:
Q. Right, so, when you -
DR. BOOTH:
A. The DCF model on the utilities I use as a check, yes.
MR. O'BRIEN:
Q. So, my question is: if you – when you look at the data that's there for the, I guess, the analyst data and you know you're going to modify that in terms of I'm not going to

use the analyst data, I'm going to use sustainable growth rate, do you anticipate from the start this is going to be a low number compared to my CAPM?

DR. BOOTH:
A. No.
MR. O'BRIEN:
Q. You really don't?
DR. BOOTH:
A. No.
MR. O'BRIEN:
Q. So, you think that sustainable growth could be the same as the analyst data?
DR. BOOTH:
A. No.
MR. O'BRIEN:
Q. Okay. So, it could be higher?
DR. BOOTH:
A. Could be higher.
MR. O'BRIEN:
Q. Do you expect it to be? It's a long time.
DR. BOOTH:
A. Usually the experience I've had is it's lower than the earnings growth rates from the analysts, because -

MR. O'BRIEN:
Q. Have you ever had a DCF be higher?
DR. BOOTH:
A. - because, because the analysts are biased. And I'll hesitate. I mean, I said this decades ago and members of the panels were "bias? Are you saying that they're deliberately manipulating?" I'm not saying that. They're just optimistic and persistently optimistic because they tend to get attached – we call it the attachment behavioural bias because they tend to get attached to the companies that they follow and they tend to have a more favourable opinion of them than actually ends up, and this is a behavioural bias we call the optimism bias. So, I would have expected the analyst-based DCF constant growth model to be higher than my risk premium estimate, CAPM estimate, and I would have expected the sustainable growth rate that basically tries to remove that bias as being lowered. So, the rank order, I would agree. I would say analysts' earnings growth rate estimates would be higher than my CAPM estimates,

would be higher than my sustainable growth rate estimates.
MR. O'BRIEN:
Q. So, how did you use your analyst results in informing your overall opinion? Did you just push that aside because you didn't – you don't think that that's reasonable and just inform your opinion on the basis of a sustainable growth rate?
DR. BOOTH:
A. No, the analysts' growth rates we know are biased. So, why would I include a biased estimate in my estimates? And that's really there to just confirm the fact that everybody knows the analysts are bias. I mean, they are sell-side analysts.
MR. O'BRIEN:
Q. But why do that calculation at all?
DR. BOOTH:
A. I think it's because Mr. Coyne used to do that estimate. Other analysts do that estimate and it's important to put that data on the table for the Board to look at.
MR. O'BRIEN:
Q. Boards are starting to look at those

estimates?
DR. BOOTH:
A. I would assume so, yes.
MR. O'BRIEN:
Q. Yeah.
DR. BOOTH:
A. I mean, I don't – it depends whether you look at – sometimes you look at the board decisions, you don't know how they come up with it, and -
MR. O'BRIEN:
Q. And I'm getting – I'm kind of getting to that point on your commentary. I guess, why not just say that "my opinion is based on the long-term Canada bond, and at this stage, I've got a value trigger of 3.8. Hits me to 7.5. Until we get to that 3.8, then that's what my opinion is going to be"?
DR. BOOTH:
A. Okay. I could write that in one page.
MR. O'BRIEN:
Q. Yeah.
DR. BOOTH:
A. And I could send it to the Board in one page.

MR. O'BRIEN:
Q. Yeah, yeah.
DR. BOOTH:
A. And I will tell you, the – before the Ontario Energy Board, my colleague and I once were looking at Union Gas and Consumers Gas and we provided full estimates for Consumers Gas and then Union Gas was literally three months later. So, we were conscious of our costs and we included a short summary for Union Gas and we included our Consumers Gas as an appendix. So, and we got raked over the coals for not including Union Gas because the hearing was about Union Gas. So, I could very easily put testimony in here before the Board and said what's changed since 2016, and I've actually did that before the Alberta Utility Commission. I went through and I gave short testimony and I had four pages, what has this Board decided, and I said the AUC has decided this. They decided this. They decided this. They decided this. I'm not going to talk about all of these other things. And that was at the time when it

was simultaneous presentation of evidence, and lo and behold, the utility witnesses, they ignored all of the board decisions and they put in the same work. So, what I'm saying is I'd like nothing better than in three years time to come back and not have to write 200 pages and just write "dear board members, what's changed since 2000 and" -- what are we, '24.

MR. O'BRIEN:
Q. Would be an easy approach, wouldn't it?
DR. BOOTH:
A. It would be a lot easier approach.
MR. O'BRIEN:
Q. And I'm going to suggest to you that it's probably due to the fact that the normal approach with this is to look at a number of different models. They all have their own limitations. Put that evidence before the Board. The Board can exercise its own regulatory judgment in looking at those models, the opinions of the experts and the facts, other comparable ROEs out there. It's a process. So, that's why you wouldn't just say 7.5, that model, stick to it,

because the Board has to look at everything.
DR. BOOTH:
A. And that's what I've done.
MR. O'BRIEN:
Q. Yeah.
DR. BOOTH:
A. I mean, the way in which, as I went through the standard models are: CAPM, overwhelmingly number one; number two, multi-beta models, ended up huge problems in terms of testimony; number three, looking at people's expectations; number four, looking at the dividend discount model; and number five, looking at regulatory decisions. I think I've covered all of those bases and – and I've tried to look at the data even when it's higher than my estimates and when it's lower than my estimates and that's the problem with estimates. If you only have one estimate, it's easy, the number is this. If you have two ways of looking at a problem, those two estimates never agree.
MR. O'BRIEN:
Q. Yeah.
DR. BOOTH:

A. So, you have to look at that and you have to provide that information to the Board.
MR. O'BRIEN:
Q. Okay. I have no further questions for Dr. Booth.
CHAIRMAN:
Q. Mr. Simmons?
SIMMONS, KC:
Q. No questions. Thank you, Mr. Chairman.
DR. BOOTH:
A. Excuse me, can we just take a five-minute water break?
CHAIRMAN:
Q. Sure.
DR. BOOTH:
A. Just five minutes.

(10:00 a.m. – BREAK)

(10:05 a.m. – RESUME)

CHAIRMAN:
Q. So, it's over to Ms. Greene.

DR. LAURENCE BOOTH, CROSS-EXAMINATION BY MAUREEN GREENE, KC

GREENE, KC:
Q. Thank you, Mr. Chair. Good morning, Dr. Booth.

DR. BOOTH:
A. Good morning, Ms. Greene.
GREENE, KC:
Q. I have six questions.
DR. BOOTH:
A. You promise?
MR. O'BRIEN:
Q. Promise?
GREENE, KC:
Q. Promise, unless you take me somewhere else. So, hopefully we won't be too long. The first question is a question I also asked Mr. Coyne and I wanted to give you the opportunity to provide your opinion on it as well. And that's to do with how the Board should consider, in setting the fair return for Newfoundland Power, the fact that it affects Hydro and customers because of the flow-through of whatever ROE Newfoundland Power gets also goes to Hydro for certain financial arrangements, and the impact – and I won't take you there because I believe you were in the room at the time – the impact that for about every half percent change in Newfoundland Power's ROE, plus or minus,

there is an additional cost to Hydro of 13.6 million dollars. And the question is: how should the Board take that into account, if at all, in setting the fair return for Newfoundland Power? And we did ask you that in an RFI and I wanted to bring that up, which is PUB-CA-14. And in the first line of your answer, you say that "both entities should be regulated independently on the basis of the fair return standard". So, first, that's the normal approach, isn't it? That because they have to be treat – each entity is to be treated stand alone, there should be no consideration of an impact for Newfoundland Power that might affect Hydro. Is that correct?

DR. BOOTH:
A. That's correct.

GREENE, KC:
Q. Okay. Is there any other comment that you wish to provide with respect to this issue?

DR. BOOTH:
A. Ultimately in regulation, we regulate utilities because of the prices that they charge because otherwise there's a monopoly

element. So, ultimately it comes down to the charges to the consumer. We regulate them because otherwise the charges would be unfair. So, that's the genesis of regulating public utilities. So, I can understand why the Board would think in terms of what rates to the consumers are fair and reasonable and why it would consider that the biggest element or one of the biggest elements is the cost of electricity that comes through from Hydro. I don't know whether it was the Board's decision or the government decision that Hydro would get the same allowed ROE as Newfoundland Power.

GREENE, KC:
Q. Definitely government.

DR. BOOTH:
A. I know in BC, BC Hydro gets the same allowed ROE allowed for other utilities in BC, and I hate to tell you that in 1986, my colleague and I presented testimony before the Ontario Energy Board basically saying that Ontario Hydro, as it then was, should be regulated as if it's a private utility. Otherwise,

you end up getting subsidiaries to electricity, which is what was happening in Ontario, which didn't make us very happy with a lot of electricity consumers, but sometimes your judgment, constrained by economics and everything else, works in the favour of consumers and sometimes it doesn't. So, at that time, I said that Hydro, which was a Crown corporation owned by government of Ontario with no equity except that retained by charging rates, should get a return equivalent to that of a private corporation. If that's the decision of the Province of Newfoundland, then that link between Hydro and Newfoundland Power means that whatever the Board decides for Newfoundland Power hits Hydro and if it decides, for example, to – as one of the information requests asked me to consider, suppose we give more equity to Newfoundland Power and then lower the allowed ROE so it's fair to Newfoundland Power, the question then is: is that lower ROE fair to Hydro? And I can't answer that. That's a question the Government of Newfoundland and Labrador

has to answer, whether they're willing to accept a low ROE for Hydro based upon changes that have made Newfoundland Power's situation fair but makes Hydro's situation possibly unfair. And my judgment would be that you have to treat them both as separate entities and give what is regarded as fair, but I don't know what's fair for Hydro.

GREENE, KC:
Q. But in this particular case, where the Board is considering the fair return for Newfoundland Power, they would have to ensure that whatever the decision is, it is a fair return for Newfoundland Power and would meet all of the criteria, whether it's financial integrity, ability to attract capital and comparable investments in securities?

DR. BOOTH:
A. Yeah, I don't know what evidence there is on the file that would allow the Board to say that suppose it went with 50 percent equity for Newfoundland Power and dropped the ROE to eight percent. I don't know if there's anything on the record to indicate that

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eight percent for Hydro would be fair.

GREENE, KC:

Q. So, in your – go back. So, that's your – what should guide the Board is that, in looking at this particular issue in this rate case, the Board needs to look at the fair return and ensure it's indeed fair from an overall perspective for Newfoundland Power as a stand-alone entity?

DR. BOOTH:

A. That's right. I would agree with Mr. Coyne that cost of capital is a cost like any other cost.

GREENE, KC:

Q. The next question then relates to the automatic adjustment formula, and you know that in this hearing, the parties have agreed that the automatic adjustment formula will continue to be suspended. I know your preference is to have an adjusted formula, but that might be an issue for the next hearing, but not for this one. So, if the Board sets the ROE and capital structure for '26 and '27, what – how do you see the next year working, from a regulatory perspective?

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DR. BOOTH:

A. Okay. First of all, according to the Alberta decision, all the parties in Alberta didn't want an automatic adjustment formula either, but the Board, the AUC seemed to impose it. So, I don't know whether the – like I don't know whether the Board has said it's off the table. If it's off the table, it's off the table. My position is simply that if you're on a three-year GRA, two years are determined and you got that third year. What do we do with the third year? Now, I know – do you just extend it? In which case, why not say it's a three-year ROE. Or if you have an automatic formula, my recommendation would be to keep it the same unless the forecast long Canada rate goes above 3.8 percent. So, what's going to happen in three years time? Newfoundland Power will probably -- if they came to the Board and said, "look, long Canada rates are 4. – forecast to be 4.5 percent. Booth's on the record, don't change it unless it's over 3.8 percent. We need a high rate of return". And then if the Board – and then

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if consulted the Consumer Advocate and the Consumer Advocate consulted me, I would say, "well, 4.5 percent, 75 percent adjustment from 3.8, give them another" whatever that is, another three-quarters of 75 basis points, and I would regard that as being fair. So, that's one way you could do it. Or you could just say it's fixed for three years or you can formally put them on an adjustment mechanism, and instead of having the company consult the Board and the Board consult Consumer Advocate, and the Consumer Advocate consult me, if I'm still here in three years time, then just put them on – say that we're thinking about an adjustment mechanism in that third year, 75 percent of any increase in the forecast long Canada rate above 3.8 percent.

(10:15 a.m.)

GREENE, KC:

Q. Assume there is no formula in place, then based on your first option, I took that it would be up to the utility to decide if they needed rate relief to come back in and ask for a change?

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DR. BOOTH:

A. It's always up to the utility. I mean, the utility in 2011 came to the Board and said, "look, long Canada rates have fallen through the floor because of all of these factors. We don't think the adjustment formula is appropriate", and the Board went to the Consumer Advocate. The Consumer Advocate came to me and I said, entirely, I agree with them.

GREENE, KC:

Q. The next question that I have relates to your recommendation, and I just wanted to confirm with you my understanding is that your recommend – you agree that your recommendation of a 7.7 percent ROE on a 40 percent capital structure would raise red flags with the credit rating agencies and would be a concern to the credit rating agencies. Is that correct?

DR. BOOTH:

A. That's correct. I think any – look, the proposition is simple. Any reduction in the ROE lowers the EBIT, earnings before interest and tax, lowers the times interest earned, and the rating agencies pay attention to that. Any change in the common equity ratio, simply because it is perceived to be a longer-term thing, they'd look at that very seriously. Now, they've noted on numerous occasions that Newfoundland Power has a very general common equity ratio. So, which is why I said to the Board, at least flag – you go back to '96/97 and just reaffirm that the Board believes that the common equity ratio should be between 40 and 45 percent. And then say something like, well, the current situation, blah, blah, blah, we're going to use 45 percent. But I'd like it back on the record that the appropriate common equity ratio is 40 to 45 percent. And then the rating agencies will look at that and they'll say, "oh, well, could be 40 percent", the same as every other – pretty much the same as every other electric utility in Canada. That's not a shocker.

GREENE, KC:

Q. But based on your answer, wouldn't be for this particular rate case. You would want

the Board to give some indication that they're going there in the future?

DR. BOOTH:

A. Absolutely. I've made this recommendation for 15 years. So, I mean, it's not – shouldn't be a surprise to the Board or the company that I think that the common equity ratio is out of line with other Canadian-owned electric utility companies, and each time the Board has said not now, not now Muskrat Falls, not now other reasons, and I could understand the Board making that decision, but I think it's about time, I mean, the Board stop saying not now.

GREENE, KC:

Q. But again, your indication to my previous answer was that you're not – even though it's in your report, you understand that it would be a concern to the credit rating agencies, which then would be of concern to Newfoundland Power's ability to attract capital and their financial integrity, so that -

DR. BOOTH:

A. No.

GREENE, KC:

Q. No?

DR. BOOTH:

A. No, that latter part is not correct. Newfoundland Power has got a A-2 rating with Moody's and Mr. Coyne constantly says well, it's a Baa high rating, not an A-2 rating and he distinguishes between an issue rating, and just to clarify to the Board, the issue we're rating is supposed to be a rating of the company because they actually give ratings for companies that don't issue securities because they use the law in contracts for – to go with contractual commitment to buy gas or something or other, there may be a commitment to the rate. The bond rating has to be a certain value. So, they have an issue we're rating and then they have an issue rating. Moody's routinely gives a double bump for mortgage debt and that's ever since the scandals in the United States where a lot of utilities were raided by their parents because they didn't have enough regulatory protection. DBRS doesn't do that because we've never had

that problem in Canada. So, rates it equivalent to Moody's A-2 because he rates it on a hierarchy principle. Is there any debt with a higher ranking on the claims of the firm's earnings than this particular debt issue, and then they're not allowed to issue anything above that ranking. So, DBRS doesn't care that they're not Moody's bonds. It just rates them as the highest rated entity with a claim on the earnings of the firm. When I say don't care, they obviously care, but they don't factor it into their rating the way that Moody's does. And in fact, if you look at the Moody's rating, they actually rate the company as an A-3, the lowest rating, and they look at all of these categories and they say A plus or whatever. They come up with all these rankings and at the bottom, they've got what they should be, which is A-3, and then they say, well, we think triple B plus is appropriate. So, and I've seen that several times in ratings that they do all the quantitative analysis and come up with a rating and then they give something different from that rating. I guess that's the rating agency's judgment. But you'd probably know, we used to have two rating agencies in Canada, the Canadian Bond Rating Service and the Dominion Bond Rating Service. CBRS was taken over by S&P about 20 years ago. DBRS was taken over by Morningstar. So, those ratings are now both American companies, and as we heard two days ago, they're rating offices are now moved from Toronto to New York and they're staffed by American rating agencies and I hate to say, it's like Costco. I loved it when Costco came to Canada. All of a sudden, we got this great wealth of product. But it was American product. It was the American supply chain, and I used to get annoyed because I'd buy electronics there or software there and the warranties weren't valid in Canada. They were valid only in the United States. Because we were on their supply chain. And I think the same thing's happening in the bond markets and in the rating agencies. DBRS is no longer a Canadian rating agency. CBRS hasn't been

Canadian for 20 years. It's now S&P. So, I fully expect that the ratings agency will be – take a harsher position on Canadian companies than when the rating agencies were Canadian and more familiar with what's going on in Canada. That would be my judgment. Mr. O'Brien, that's my judgment.

GREENE, KC:
Q. And you weren't here when we discussed with Ms. London, Vice President of Finance for Newfoundland Power, the Moody's reports and the impact on the credit metrics of various scenarios, but when we looked at those scenarios, and I can bring it up, which I hasn't intended to do, it would be clear that Newfoundland Power would not be able to make the 16 to 18 percent coverage for the cash flow to debt operations that Moody requires for the current rating with your recommendation. Would you like to see that?

DR. BOOTH:
A. I remember that Moody's said that it's got a temporarily there's a problem with one of the ratios but -

GREENE, KC:

Q. Right.

DR. BOOTH:
A. - you got to remember the ratios, the AUC looks at these ratios, and particularly the S&P ratios, and it uses the lowest numbers in the AUC to maintain the standard, because they don't actually use those ratios. So, if it's a temporary phenomenon, then they'll look at that and say, "well, whatever caused that change, it will disappear and it won't be a factor". So, you got to distinguish between temporary and sort of permanent factors. When you look at my data, according to the AUC use – and they use the S&P financial metrics, then their estimates for 37 percent common equity ratio and a pre-tax – and I have to emphasize, pre-tax return on equity, not the after-tax return on equity, more than satisfies the credit rating agencies. So, I checked the numbers. 7.7 percent, that would be different for an Alberta utility than for Newfoundland Power. Now why is that? Well, I hate to tell you, you're in a high tax jurisdiction. So, along with 7.7 percent comes a higher tax

burden, and the pre-tax of 7.7 percent puts you in line with the nine percent after-tax in Alberta in their schedule with the fact that Alberta, they're parallel tax rate. So, as far as the rating agencies are concerned, the more tax Newfoundland Power pays, the better it is for the bond holders. I know that sounds crazy, but that's absolutely correct, because they look at the earnings before interest and tax. So, when you look at the rating metrics, my recommendation would satisfy the – not only does it satisfy the fair return standard, it certainly satisfies an A-3 bond rating. Whether it satisfies an A-2 bond rating, which is the highest of any utility in Canada except Fortis Energy FEI, Fortis BC Energy out in BC, gas utility, and so I would not regard dropping from A-2 to A-1 the same as most utilities in Canada as being a shock, but I wouldn't be surprised if it is dropped from an A-2 to an A-1, but that – obviously I'm not a bond rater, but I'm just going by how they rate other Canadian utilities.

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GREENE, KC:
Q. You would agree that your recommendation of the 7.7 ROE and the 40 percent equity in the capital structure, if accepted by the Board, would be the lowest ROE of any utility in Canada?
DR. BOOTH:
A. I don't know about any utility in Canada, certainly the big ones that we tend to look at.
GREENE, KC:
Q. And you would also agree that such a decision would cause a red flag to be raised at least for the credit rating agencies?
DR. BOOTH:
A. Red flag with who, sorry?
GREENE, KC:
Q. The credit rating agencies, I think we've got that.
DR. BOOTH:
A. Yes, they would certainly look at it and say what's going on here and take a closer look. Now, as I said, I'd love to know what the financial structure of KKR's bid for –
GREENE, KC:

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Q. I don't think we need to go there today. We've heard about it and it's not necessary.
MR. BOOTH:
A. But I'd love to know what it is.
GREENE, KC:
Q. Perhaps you can ask that of them or Emera in another environment, but not this hearing. Now, when you go your specific recommendation, first on the floatation adjustments, the 50 basis points that you have included. You raised a question about whether that is appropriate, but I understood from your evidence that you are suggesting in any way that it would be removed from your recommendation?
DR. BOOTH:
A. No, my recommendation includes the 50 basis points adjustment as it does right across every utility in Canada because we stopped making extensive arguments about how much cost is there actually to issue equities, and we used to go through extensive testimony on how much does it cost to actually issue shares in Canada, and what are those costs, and it was just an endless

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period of litigation. And like it or not, we sort of all settled on 50 basis points, and I was just struck by the fact that Newfoundland Power said, well we don't have any issued costs and legally, I'm just raising the issue legally, how can you pass on a cost where the company admits that they haven't got any costs?
GREENE, KC:
Q. Are you aware that in the recent BC decision the board disallowed the 50 basis points for the recovery of floatation costs?
DR. BOOTH:
A. I wasn't aware of that. I wasn't in that hearing and I'd say that's a bit of a shock.
GREENE, KC:
Q. On the other hand, but in doing that, they said if there was an actual cost they could apply to recover it, but they said it affected the financial flexibility and they, that was one of their considerations in increasing the equity to 41 percent. So again, even though they took it out in one part, they considered it –
DR. BOOTH:

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A. Put it back in another.
GREENE, KC:
Q. Right.
DR. BOOTH:
A. But that's the board exercising their judgment, I would suspect.
GREENE, KC:
Q. Right, and that's why I wanted to use it as an example of how boards exercise their judgment, which is where we will come to.
COFFEY, KC:
Q. If I could, Mr. Chair and Ms. Greene, is that decision actually on the –
GREENE, KC:
Q. It is on the record, I can take you through the page numbers –
COFFEY, KC:
Q. Okay, no, no, that's fine, I just wanted to confirm that, that's all.
GREENE, KC:
Q. It is actually on the record.
MR. BOOTH:
A. Now I wasn't involved in that hearing, but you've given me an incentive actually to read in.

GREENE, KC.:
Q. Yes, and as I've said, I won't go there now in the interests of time, but it is certainly on the record and it's page 126, paragraphs 134 and 135. So moving on to another part of you recommendation or another input which is the market risk premium. Here I did want to go to the Alberta Utilities Commission decision, which is Information Item No. 24, and I believe, Dr. Booth, your evidence is that when you look at the market risk premium, you do use judgment and part of that includes consideration of the forecast or opinions of independent third parties, is that correct?
(10:30 a.m.)
DR. BOOTH:
A. That's correct.
GREENE, KC:
Q. Including items such as surveys, the Fernandez survey, for example?
DR. BOOTH:
A. And the Kroll who are the experts in this area and Damodaran because they are the three that are referenced in surveys in the

United States of who do they look for in the market risk premium.
GREENE, KC:
Q. So here, if we go to the Information Item No. 24, which is the Alberta Utilities Commission decision, if you go to page 30. We can go back and look, but you will see that Dr. Cleary was one of the experts in this hearing, in fact, they had several experts on cost of capital, not just two. And Dr. Cleary tends to be more similar to your expert opinion in his recommendations, is that correct?
DR. BOOTH:
A. That's correct. I was his supervisor for his PhD and I hope I taught him something.
GREENE, KC:
Q. So when you look at paragraph 41, you say, the commission there says "There may be pitfalls in relying on available forecast of market return. For example, these estimates may not be as robust as empirical studies, be amendable to ready analysis or testing and may be prepared for different purposes. However, this type of evidence does offer

some indication of what market professionals believe the ROE may be in the future. This can and potentially does affect investor expectations and subsequent behaviour and that, in itself, can shed light on the limits of frontiers of the range of reasonable estimates of the prior ROE." Now, and if we go over to the next page –
DR. BOOTH:
A. So that's not the market risk premium, that's the overall market return and the board has said that, the AUC has said that consistently for the last 15 years or so, that there is a limit, basically, to the equity return for the market and then the allowed return for utilities should be below that.
GREENE, KC:
Q. And then if you go to the next page in paragraph 143, you note there they excluded that estimate from Concentric as being too high. So I'm using this as an example of what BC may have accepted certain practice. When we go to Alberta, which was released a month after BC, we see a different exercise

of judgment by the commission and they did say that that type of information would be useful and would be taken into account, is that -
DR. BOOTH:
A. Can I comment on that?
GREENE, KC:
Q. Sure.
DR. BOOTH:
A. I've had many interesting discussions with the panel of the AUC, and one of them was Professor Booth, why should we accept your 3.8 percent as the long Canada rate, why don't we just use a lower rate and then use a bigger market equity risk premium? And I said, well, I don't think that's appropriate because I don't think the current market rate is a fair market value and we have a lot of evidence on the market risk premium, so why should we sort of torture the market risk premium to apply to a lower long Canada rate in order to get a fair return? And the second part of that is if you believe the beta was .5, including that long Canada adjustment that I was using of about 1.8

percent or whatever, you put that inside the market risk premium and then for the utility with a beta of .5, you only include 90 basis points of it, half of it. I prefer to include it in the base to get what I regard as a reasonable estimate; whereas the Alberta Utilities Commission has routinely had a higher market risk premium applied to a lower long Canada bond yield during this period when we had incredibly low long Canada bond yields. What would be inappropriate is to use this adjusted high market risk premium and apply it to my 3.8 percent long Canada bond yield because that's double counting and we'd end up with an excessive estimate. So when we look at these estimates, I can't remember who came up with 5.9 percent, but I think that, based upon the historic evidence, based upon Kroll, based upon Damodaran, based upon all of the survey responses, that's reasonable applied to what would be regarded as a normalized long Canada bond yield or what I call a trigger yield. 7.5 percent at that time may have been reasonable to apply

against an incredibly low long Canada bond yield, so the market risk premium it's important to take into account, is a market risk premium over what? So this range, they don't clearly specify what they're doing with that range or what the experts would do or where that range was coming from for the experts.

GREENE, KC.:

Q. And I didn't intend to go there, I was using it as an example of how a regulatory board in looking at all of the evidence has used their judgment based on—and did take into account and did reference the independent third party views of experts, that's all.

DR. BOOTH:

A. I mean, if –

GREENE, KC:

Q. If we could move on now to betas. Again, just as an example of another, how commissions do treat betas. If you go to the same decision on page 28, and this was a source of several questions by Mr. O'Brien with respect to betas and how your betas differed from Mr. Coyne's. If you go to

paragraph 128 on page 28, this I think we'll agree with, the very first sentence, "In this proceeding, parties have much the same debate about beta as in past generic cost of capital proceedings, consistent with its views in past generic cost of capital decisions, the commission considers that there exists room for legitimate differences of opinion among industry practitioners and academic experts on what constitutes a reasonable range for a regulated utility beta." Then we go to the next page –

DR. BOOTH:

A. Is there a question there?

GREENE, KC:

Q. No, I just—you may not agree with that.

DR. BOOTH:

A. Well I would say I don't know, I'm an academic, I look at the evidence and I would not accept that industry practitioners use adjusted betas, which presumably is the implication. There's no evidence for that. There's no evidence for that at all?

GREENE, KC:

Q. No, I'm just saying this was the view of—and

we'll come back to how a regulator may view the opinions and judgments that are put forward. So then we go to the next page which is paragraph 131 and we see what was estimated by Mr. Coyne at that time, his estimated beta of .83 and .86. And then we go on to the next paragraph, sorry, same paragraph, second last sentence, "The commission finds that these are unreasonably high given its findings regarding the overall risk of Alberta utilities." The last paragraph, "The commission concludes that utility stocks are appreciably less risky and volatile than equities in the boarder market and therefore, consider a reasonable range of betas for regulated gas and electric utilities to be between .45 representing Dr. Cleary's unadjusted long-term beta, and .75 in the range of the adjusted betas recommended by Dean Masden and the other expert who was there." So I wanted to bring you to at least the Alberta decision, which is different than the British Columbia Utility decision and how it treated some of these factors. And you would agree, obviously, that Mr. Coyne's estimates in this proceeding are also too high, it shouldn't be considered by the Board for the beta to be used in determining the recommended ROE based on CAPM.

DR. BOOTH:
A. The Aberta decision—the AUC has in the past explicitly rejected Mr. Coyne's adjusted betas.

GREENE, KC:
Q. And they did here again.

DR. BOOTH:
A. And the Hamada adjustment is a joke and I'd have to say is a joke. It's explicitly rejected by the AUC and Hamada adjustment, I've never seen people apply, a Hamada adjustment is to the capital structure of the firm and you'll see it's basically an adjustment for the tax advantage to using debt financing for the company and it's based upon US tax system, not based upon what we do in Canada. So perhaps a joke is too strong, it's just, it was explicitly rejected here—it's basically a leverage adjustment. It's basically saying that in

the US they use more debt, you apply a Hamada adjustment to the Canadian utilities and you need to increase their ROE. And that assumes that the use of debt increases the volatility of the earnings of the utility. I don't see that for Newfoundland Power, I don't see it for any utility in Canada because of all the deferral accounts. My judgment would be that Newfoundland Power could be allowed a 35 percent common equity ratio and it would still earn its allowed ROE because of the extent of regulatory protection. The amount Hamada adjustment takes no account whatsoever of the use of deferral accounts to adjust for the volatility of the underlying earnings of the utility. So it's totally inappropriate to use for regulated companies. And in fact, there was papers in the American and Economic review back in the mid 1960s basically saying that it shouldn't be used. And Dr. Villisan (phonetic) is an accountant.

GREENE, KC:
Q. So I've come to my last question, you have

said in your evidence and also in cross-examination by Mr. O'Brien that you're somewhat frustrated in having appeared for 38 years, I believe you said, and not having your opinion understood and accepted. I was going to say I think I've been here almost as long involved in regulatory proceedings, for several years for a utility and in the last 13 as board hearing counsel and what the commissioners may and board hearing counsel may find difficult to understand or frustrating is when they're looking at these things, we see significantly different recommendations coming from experts, often using the same methodologies. I believe you have agreed that significant discretion and judgment, I'll call it discretion, it's judgment, has to be used by the experts and you can see it's also used by the regulatory boards when they are presented with what can appear to be extreme recommendations. What I mean extreme, I mean one is very, is much lower than the other and the utility cost of capital expert tends to be higher than what ends up being accepted by the regulator;

whereas the Consumer Advocate expert's opinion doesn't seem to be accepted either, so what is the Board to do with that, I was going to ask you your opinion on it.

DR. BOOTH:
A. Very, very, very good question. What constitutes an expert, I think that's the core of the question. In Quebec they have different opinions on what an expert is and as a result, legally they have to apply different weights to an expert's opinion versus somebody that could come in and testify based upon knowledge of what goes on, rather than is a genuine expert. And I say that, just I mean, this is just, I don't know whether the Board is aware of this, but the lawyers I'm sure are aware of it, that the definition of an expert differs in different jurisdictions and as a result the weight placed on their evidence differs. I think academics have a different view to what the fair return standard is because we're trained to basically look at the economics of regulated industries and why they are regulated and we're trained to look

at capital markets and what the fair return is, we just call it the cost of equity capital or the cost of debt capital, and then we make an adjustment for the fair return, but that's—we do research on this, and the papers get sent out and they're reviewed and the ones that aren't acceptable disappear, they're basically—so there is a lot of research on this. Professors of finance have to read this literature, so I read the literature and there's no evidence on betas adjusting towards 1 for utilities. The only evidence is that they don't. Witnesses produced, well, let's just say that's an academic perspective on this.

(10:45 a.m.)

In 2012, I think it was, the BCUC brought in the chair of the financial group, financial group at the Sauder Business School at the University of British Columbia, Ron Giammarino. I tried to hire him at U of T, but he preferred for some reason to go to UBC, but I thought having somebody, a genuine expert in terms of the financial issues on the board to assist the

board and explain, well, this is why they get that expert, this is why they get this expert and underlying what's going on was useful to the BCUC, and in fact, the BCUC, the chair of the BCUC for a number of years was on leave from the University of British Columbia from their Department of Economics. So I think, it is, I recognize it's tough for laymen, particularly with all due respect you're knowledgeable, you're intelligent, but you're not familiar with a lot of this material except what you hear, your personal investing and what you hear in the courtroom, so I would, I thought the UBC got it right. That was a hearing where there were five different witnesses and if you have five different witnesses, you're going to get five different answers, and I think having a genuine expert on the board to advise them had a big impact on that hearing before the BCUC. And that was a particularly important hearing because it was just after the US financial crisis, and as a result, things were all over the place, so there was more dispersion, should I say,

than normal in that hearing. So as a professor of finance and I don't have a bias for none of these, I do work for the Justice Department on Indian Land Claims, I do work on CRA tax cases that I find interesting, and I've appeared on behalf of a variety of interest groups, but my judgement is always exactly the same. I think I'm unbiased, but I think I've been trained to think a certain way and getting off that certain way is difficult, so in may be I'm biased because I'm a professor of finance. Maybe economics is wrong, maybe what we teach our MBAs and what we do research on is all wrong. Maybe the world is different out there, making fundamental mistakes. It would be against my background to say that. I happen to think that the consensus in the finance community, thousands of finance academics doing research on these topics, is reasonably correct. We have a few oddballs, you actually get publications by being oddballs, by making out of the ordinary recommendations that attract interest and then generate controversy. Academics is

full of controversy, that's how we come to decide on some form of consensus, so I can't help the Board this time, but there's some good people in Memorial, perhaps next hearing they could bring in the chair of the economics group from Memorial as a supplementary panel member just to hear some of this regulatory work. I am getting testy, perhaps it's just old age. I'm testier than I was six years ago because you hear the same things over and over again and I'd like a lot of these things to be settled.

GREENE, KC:

Q. But unfortunately we are where we are and unfortunately regulators haven't generally accepted the academic approach, so we're left with the academic approach as what I described, you just described and then the utility expert who comes in with their data, so it's a challenge for the commissioners.

DR. BOOTH:

A. I would say you look at the burden of the evidence and I've come a long way from when I used to present my own estimates thinking, well, what we do in academia is right, and produced those estimates. Now I produce all of this stuff from Bank of New York Mellon, from JP Morgan, from TD, from Kroll, the beta estimates from RBC and from—I mean, I've done that because I think that I'm unbiased. I also think that most of the people in the capital market are unbiased. There's people putting their money on the table buying a utility, a nameless utility, they're doing it for a reason and that's subjective data. So I've tried to go out of my way, particularly over the period since 2009 when we got, after the financial crisis to include more and more, as much data as possible on independent views of what's going on in the capital market. And as I said, Mercer, Newfoundland Power's actuary, their estimate of the Canadian equity market return is within a few basis points, exactly the same as mine, and if Mercer and Newfoundland Power accepts Mercer's judgment that the adjusted market return from 7.1 percent to 8 point something or another to make it consistent with regulatory practice

is in the 8s, if that has been accepted by Newfoundland Power, it's Mercer's judgment, it's exactly the same judgment as mine, how can you give Newfoundland Power 9 point whatever it is they're asking for, 9.85 percent when their own actuary is telling them that the long-run return on the equity market is 8 point four something or other. You now, sooner or later you'll have to listen to, not just the academic finance experts, but the actuaries and the people actually putting money behind their estimates.

GREENE, KC:
Q. Thank you very much, Dr. Booth, those are all my questions.

CHAIR:
Q. Any questions?

COMMISSIONER O'BRIEN:
Q. No questions from me.

CHAIR:
Q. I just want to touch on one item, I guess it was the, initially when you started your discussion and you talked about the investment in the LIL.

DR. BOOTH:
A. Am I allowed to talk about that?

CHAIR:
Q. My only point is that there's a lot we don't know about that, it was a press release which doesn't have all the details and based on my reading, I thought there was some future obligation of Emera to pay for sustained capital, continue to pay for sustaining capital, and if that was the case, you wouldn't—there's potentially we may not see all of the values that Emera brings to the table in the calculation of the market to book calculation that you completed if there was future obligations of Emera, would that be fair?

DR. BOOTH:
A. No. My understanding from the press release is KKR has assumed those obligations. KKR talks, one of them talks about 235 million, the other one talks about 240 million, so I don't know why there's a 5 million discrepancy, but when you look at the numbers that I gave you, I didn't use the one point, whatever it was, one point

something or other that KKR has agreed to pay, I used the amount they agreed to pay minus the continuing obligations to LIL. So that's what they paid for the existing value of the assets and my understanding, I could be wrong here, but my understanding is Emera said they are to continue an obligation, I forget whether it's 235 or 240 and KKR has said they got, they assume that obligation, they got a slightly different number, but that's specific to LIL and I would say something else that Mr. O'Brien might take offence at, but even if you assume, if KKR is reasonable, they're going to look at this and they are going to think about not just now but the future. Even if they think that this Board is going to give 9.85 percent and the LIL is going to get 9.85 percent, that doesn't change the analysis, the implicit required return on the part of KKR is still less than my recommendation because it has to be that they assume they're going to get 11 percent on their investment to justify paying a 207 million dollar premium for the book value; otherwise, any reasonable number that you put in there for what KKR is going to earn, means that that 207 million dollar goodwill, premium over the book value, we know it's not going to earn any money. I mean, that's what—it's gone, all you earn is a book value and that's why I started out, the fundamental difference between myself and Mr. Coyne and I'm not a legal expert, all I know is that in Canada we're required to look at the securities, not look at the book value and the return on book value, but the return on the market value and that means whatever premium KKR paid, their fair return is less than 8.5 percent, significantly less than 8.5 percent, so I looked at that as just confirmation that here am I saying 7.7 percent, everybody else is saying higher, look at KKR, they're implicit fair return is significantly lower than 8.5 and it's actually lower than my estimate, so it's probably closer to Dr. Cleary's estimate in the AUC.

CHAIR:

Q. Okay, I just wanted a clarification that piece. All right, thank you very much.

Back to counsel.

MS. GLYNN:

Q. Any re-direct?

MR. O'BRIEN:

Q. I dare not, it was on that point, Mr. Chair and I think I would agree with you that the sustained capital was kept by Emera, is my understanding of the obligation on that, and Dr. Booth, I believe there are other pieces and you can comment on that as to whether or not there's any operating risk for KKR that you are aware of? My understanding is operations may not come with this and that maybe Hydro might be involved with continuing the operations and that may affect the value of that return.

MR. BOOTH:

A. I'll accept that. I was originally just going to use suppose Company X paid such and such, but Company Y's book value, what is –

MR. O'BRIEN:

Q. And my point is we didn't have all the information.

MR. BOOTH:

A. No, we don't have all the information. It

could be the story is slightly different.

MR. O'BRIEN:

Q. Right.

MR. BOOTH:

A. But all we know from the press release, there's a 207 million dollars in goodwill and goodwill doesn't earn any rate of return.

MR. O'BRIEN:

Q. And you've commented on that and I understand that on the record, I guess my point is more there are more pieces to this we're not aware of.

DR. BOOTH:

A. There could be and I'll give you that, all I know is the press release.

MR. O'BRIEN:

Q. All right, that's all I have.

MS. GLYNN:

Q. Any re-direct from that?

COFFEY, KC:

Q. Oh, no, no.

CHAIR:

Q. I guess we're done for the day. Thank you very much and have a good weekend.

BROWNE, KC:

Q. Have a good weekend everyone.

Upon conclusion at 10:50 a.m.

CERTIFICATE

I, Judy Moss, hereby certify that the foregoing is a true and correct transcript of hearing in the matter of Newfoundland Power Inc. 2025-2026 General Rate Application heard on June 21st, 2024 before the Newfoundland and Labrador Board of Commissioners of Public Utilities, 120 Torbay Road, St. John's, Newfoundland and Labrador and was transcribed by me to the best of my ability by means of a sound apparatus.

Dated at St. John's, Newfoundland and Labrador this 21st day of June, 2024

Judy Moss

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