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(9:05 a.m.)

CHAIRMAN:
Q. So there are some undertakings I understand that have been entered into the record?

MS. GLYNN:
Q. Absolutely. Newfoundland Power has fulfilled the undertakings that were outstanding.

CHAIRMAN:
Q. And so –

KELLY, Q.C.:
Q. That's the last currently outstanding undertakings, Mr. Chairman.

CHAIRMAN:
Q. Okay. So Mr. Johnson, I guess we're back to you.

MR. JAMES COYNE (PREVIOUSLY SWORN) CROSS-EXAMINATION BY THOMAS JOHNSON, Q.C. CONT'D

JOHNSON, Q.C.:
Q. Good morning, Commissions. Good morning, Mr. Coyne.

MR. COYNE:
A. Good morning.

JOHNSON, Q.C.:
Q. Mr. Coyne, I had been confused about the—one of the—that you had decided to rule out Consolidated Edison. What—the company you decided to rule out of your proxy sample was Edison International, and do you recall the reason why you ruled out Edison International which otherwise met your criteria for screening?

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MR. COYNE:
A. Yes, they had a troubled unregulated business that caused their credit rating—well, it caused their financials to be challenged and I didn't feel they were worthy, comparable to Newfoundland Power.

JOHNSON, Q.C.:
Q. Yes, the—one of their units went bankrupt under Chapter 11.

MR. COYNE:
A. And unregulated.

JOHNSON, Q.C.:
Q. Yes.

MR. COYNE:
A. So yes.

JOHNSON, Q.C.:
Q. That's just –

MR. COYNE:

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A. Yeah.

JOHNSON, Q.C.:
Q. That's confirmed just for the record at CA-NP-159, okay? Now –

MR. COYNE:
A. And that's why I took them out of the proxy group.

JOHNSON, Q.C.:
Q. Yes, okay.

MR. COYNE:
A. Yeah.

JOHNSON, Q.C.:
Q. Yes. Okay, so Mr. Coyne, just going back just briefly to your HQTD (sic.) evidence, and we had some discussion of your Chart 4 and that's at CA-NP-154.

MR. COYNE:
A. Once again, can I borrow the Board's version that has the attachment?

MS. GLYNN:
Q. 154.

MR. COYNE:
A. Thank you. Yes.

JOHNSON, Q.C.:
Q. Okay. So we have it on the screen here now where you're showing the average earned versus authorized ROE, US proxy group, operating companies. So you're not talking about the companies that are actually in a proxy group. You're talking about their subsidiary operating companies?

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MR. COYNE:
A. That's correct.

JOHNSON, Q.C.:
Q. And of course in this case we're comparing Newfoundland Power to proxy group companies, right? Not operating subs?

MR. COYNE:
A. We're doing it both ways. The capital market information that I derive by necessity is for public traded companies. So that's at the proxy group level.

JOHNSON, Q.C.:
Q. Yes, that's right.

MR. COYNE:
A. But when I do my risk analysis, I do that at that operating companies so I made an apples-to-apples comparison.

JOHNSON, Q.C.:
Q. Okay. Now just to confirm on Chart 4 when

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we're talking about the—how the operating companies did compared to their authorized ROE, would you confirm that four of the years shown on average they didn't meet their allowed returns? That would be 2000, 2005, 2009, 2010. Is that right?

MR. COYNE:
A. That appears so from the chart, yes.

JOHNSON, Q.C.:
Q. Okay, and this chart similarly doesn't tell us anything about whether these individual operating utilities earned the allowed return each year, right? This is--it just expresses an average?

MR. COYNE:
A. That's correct.

JOHNSON, Q.C.:
Q. Yes.

MR. COYNE:
A. Yeah.

JOHNSON, Q.C.:
Q. And nor does this tell us what the median return was over this period of time, this ten-year period from 2000 to 2011, correct?

MR. COYNE:

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A. No, it's expressed as an average.

JOHNSON, Q.C.:
Q. Okay. Now Mr. Coyne, we passed over for cross-examination purposes the January copy of the AUS Utility Reports.

MR. COYNE:
A. Yes.

JOHNSON, Q.C.:
Q. Okay, could we turn to those? They are a cross aid. It's item number 5 in my letter to Ms. Blundon of April 1st, 2016.

MS. GLYNN:
Q. And that will be entered as Information Number 19.

JOHNSON, Q.C.:
Q. Thank you.

MR. COYNE:
A. Yes, I see it.

JOHNSON, Q.C.:
Q. All right. Have you seen these reports before, AUS Utility Reports?

MR. COYNE:
A. I have not. I believe that Dr. Booth submitted this. Perhaps it was in a similar fashion, or his counsel did in the BCUC

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Commission, but I don't track the AUS Reports. We rely on –

JOHNSON, Q.C.:
Q. Do you –

MR. COYNE:
A. - SNL and other providers that are more relied upon in the industry for this type of data.

JOHNSON, Q.C.:
Q. Yes. As a matter of fact I tried to put SNL data last time to Newfoundland Power's cost of capital witness and they didn't know if they could count on SNL data. Are you familiar with that?

MR. COYNE:
A. That the witness did not know?

JOHNSON, Q.C.:
Q. Yes.

MR. COYNE:
A. Well that's rather odd because it's owned by McGraw-Hill and they're subsidiary plants. They're the largest provider of the state in the industry.

JOHNSON, Q.C.:
Q. Okay, very good. So anyway, AUS Utility

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Reports, I understand that you write a paper or published a paper that went to Fortnightly Reports? That's under the auspice of AUS, isn't it?

MR. COYNE:
A. I'm not sure who owed Public Utilities Fortnightly.

JOHNSON, Q.C.:
Q. Okay. Well we'll come to that in a moment, too. So –

MR. COYNE:
A. My understanding is that they're owned by an engineering firm, but that's the last understanding that I had.

JOHNSON, Q.C.:
Q. Okay. So essentially, Mr. Coyne, maybe if—I passed over—by the time I got out of there it was a little bit late yesterday, but I did pass over a brief document about the qualifications of Ms. Pauline M. Ahern, the managing principal of AUS Consultants.

MR. COYNE:
A. Yes.

JOHNSON, Q.C.:
Q. And with –

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MR. COYNE:
A. I saw it, you did.
JOHNSON, Q.C.:
Q. And with the Board's indulgence I think it went over four o'clock. By the time we got out of here it was a little late. I don't know if Newfoundland Power raised its objection to me asking about that document.
KELLY, Q.C.:
Q. I'm not sure where it's going, Mr. Chairman, but I don't take any objection, at least at this point.
JOHNSON, Q.C.:
Q. Yes, okay. Thank you. Let's look—Ms. Ahern, she apparently is the CRRA of AUS Consultants, and I just want to return to the second page of this document, Mr. Coyne.
MR. COYNE:
A. Yes.
JOHNSON, Q.C.:
Q. All right. See the third paragraph down?
MR. COYNE:
A. I do.
JOHNSON, Q.C.:
Q. She, by the way, is the managing principal

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of AUS, responsible for managing the consulting practice, et cetera, and -
MR. COYNE:
A. Well if I might add, she's no longer with the company.
JOHNSON, Q.C.:
Q. Okay, very good. Now as you see, we're—we see where she's describing as the publisher of AUS Utility Reports formally CA Turner Utility Reports? Have you ever heard of CA Turner Utility Reports?
MR. COYNE:
A. I have not.
JOHNSON, Q.C.:
Q. Okay. Ms. Ahern is responsible for the production, publishing and distribution of the reports. "AUS Utility Reports provides financial data and related ratios for about 80 public utilities, i.e. electric, combination of gas and electric, natural gas transmission, telephone, water utilities on a monthly, quarterly and annual basis. Among the subscribers of AUS are utilities, many state regulatory commissions, federal agencies, individuals, brokerage firms,

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attorneys, and they've been continuously provided financial statistics on the utility industry since 1930." You weren't aware of that, were you?
MR. COYNE:
A. I was not.
JOHNSON, Q.C.:
Q. Okay.
MR. COYNE:
A. No.
JOHNSON, Q.C.:
Q. So that's news to you?
MR. COYNE:
A. Yes, they're not—as I said, they're not widely used for those that do the work that we do because we subscribe to databases that we can access electronically in full.
JOHNSON, Q.C.:
Q. Yes, but now you've been only preparing cost of capital for what, seven years?
MR. COYNE:
A. As we said, ten years, but it's –
JOHNSON, Q.C.:
Q. 2007?
MR. COYNE:

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A. Yes, but I'm part of a team of people that do this work in my firm and we rely on a lot of data, but we don't rely on AUS and I'm not aware of other consultants that I work with that do, but –
JOHNSON, Q.C.:
Q. Okay. Well let's just for a moment see –
MS. GLYNN:
Q. Mr. Johnson, before you move from that document, my apologies, we don't have the paper copies. So we will distribute that at the break.
JOHNSON, Q.C.:
Q. Yes. I'll have -
MS. GLYNN:
Q. And we will enter that as Information Number 20.
JOHNSON, Q.C.:
Q. Pardon me. Sorry about that.
MS. GLYNN:
Q. Okay.
JOHNSON, Q.C.:
Q. Yes. Well, let's just look at what these people say, and perhaps you could find in your material that you find authoritative

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whether you'd agree or can find something to contradict it.

MR. COYNE:
A. Yeah.
JOHNSON, Q.C.:
Q. So if we look at the AUS Monthly Report that was—that we've been provided through Dr. Booth, we see here that there—we're going back to the other cross aid there, Samantha. Okay. Can that be made a little bit bigger?
MS. PIERCEY:
Q. Is there a certain section you have there?
JOHNSON, Q.C.:
Q. Yes, just come over a little bit further so we can see the names of these companies. Okay. So for the time being, Mr. Coyne, you'll see that we're going to ignore Duke and Eversource because AUS lists them as combination gas and electric, but you were mainly looking electric companies, right?
MR. COYNE:
A. Yes, I was.
JOHNSON, Q.C.:
Q. Okay.
MR. COYNE:

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A. Yeah.
JOHNSON, Q.C.:
Q. Now so if we look at number 1, ALLETE, traded on the New York Stock Exchange. It's number—company number 1.
MR. COYNE:
A. Right.
(9:15 a.m.)
JOHNSON, Q.C.:
Q. Do you see what their allowed—the allowed return was from 2013, of 10.64? That's right across. Right across the—that's column number 24.
MR. COYNE:
A. Right.
JOHNSON, Q.C.:
Q. Could you just come over a little bit further, Samantha? Okay, so you see their allowed was 10.64 and the return that's being shown according to this document is on common equity, is 9.3 percent, in column 21.
KELLY, Q.C.:
Q. Is there –
MR. COYNE:
A. I do see that.

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JOHNSON, Q.C.:
Q. Okay. And likewise it just—if you look at Great Plains –
MR. COYNE:
A. Yeah, yeah.
JOHNSON, Q.C.:
Q. - which is the company number 7—Samantha, if you just go—so Great Plains, company number 7, if you just come across the line to those—just go back over across the screen again. It's showing an allowed return of 9.57 but the return that's reported at column 21 is 5.7 percent. And OGE if you just—is item number 11, OGE Energy. Again go across. This one is a little bit better, 9.98 is the allowed versus 9.1. If you could go a couple of lines down to Pinnacle, number 13, allowed 11, earned 8.8. And then go down to the—number 18, Samantha, if you could to Westar. Right. So Westar is 10.20 versus 8.5. And finally if you go down to the table below which are the combination of electric and gas, we pick up Duke as company number 11. If you could, just go back across the screen. Yes, so their allowed

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ROE is 10.17 and the earned on common equity is 6 percent. And finally, number 14, Eversource. Number 14, come across, 9.32 and earned was 9.1. Now can you confirm, Mr. Coyne, that as appears evident to us at least, that not one of the solely electric companies as defined by AUS and included in your sample actually earned their allowed ROE in 2015?
MR. COYNE:
A. No.
JOHNSON, Q.C.:
Q. Okay.
MR. COYNE:
A. Let me tell you why if I might.
JOHNSON, Q.C.:
Q. Okay.
MR. COYNE:
A. So you've given us one page from this report, and there are footnotes associated with it.
JOHNSON, Q.C.:
Q. Okay.
MR. COYNE:
A. So I want to take a look at what the data

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was. So if one looks at—we don't subscribe to this report, but I asked one of my annalists last night if they'd go dig us out one and we have one that was provided in another proceeding. So I have the November version of it, November 2015, where I could find the footnotes. So a few important issues. You're looking at the percent return on book value common equity.

JOHNSON, Q.C.:

Q. Yes.

MR. COYNE:

A. To make that determination, right, when you're looking at the earned ROE?

JOHNSON, Q.C.:

Q. Right.

MR. COYNE:

A. Okay, so this is what they say, "Income available for common equity divided by the average common equity multiplied by 100. Average common equity based on the most recent beginning and ending, moving 12-month period available." This is at the holding company level, right?

JOHNSON, Q.C.:

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Q. Right.

MR. COYNE:

A. The holding company level.

JOHNSON, Q.C.:

Q. Right.

MR. COYNE:

A. Let's go on. "On allowed ROE that is the most recent report, state level allowed ROE rate of return on common equity ROE for companies operating in multiple jurisdictions," which most of these do, "are averages. Various companies are received in centre (phonetic) based ROE authorization that are reported in this report. The date of the commission order authorizing reported ROEs for companies operating in multiple jurisdictions, no date is given because the reported ROE is an average derived from multiple commission orders issued at different times." Then they go to say, "In many instances available information required that per share and percent return and book value of common equity total capital derived from figures that represent financial activity from different 12-month

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periods." So A, they're looking at holding company returns, holding company balance sheets pertaining to an average across-jurisdictions of allowed ROEs. They may be for different time periods. So they're comparing apples to persimmons. I mean these—this is not a reliable way to look at whether or not a regulated utility has earned its allowed ROE. You can't take—you can't divide the book income at the holding company level by the book value of its equity at the holding company level and make a determination as to what that means for the regulated utility. Let me make—let me give you a case in point. If you look the sheet you have on the screen, it shows PP&L with a common equity ratio of 34.1 percent. So that would be—do you see that?

JOHNSON, Q.C.:

Q. What column?

MR. COYNE:

A. That would be "Common Equity Ratio," number 3. That's your column 20. And do you see the number 34.1 percent under the common equity ratio?

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JOHNSON, Q.C.:

Q. Yes.

MR. COYNE:

A. Okay, PP&L, the regulated utility, has a common equity ratio of 52 percent, not 34.1 percent.

JOHNSON, Q.C.:

Q. So the holding company is at 34 percent?

MR. COYNE:

A. It's a holding company number.

JOHNSON, Q.C.:

Q. Right.

MR. COYNE:

A. So the –

JOHNSON, Q.C.:

Q. But just let me understand something now, Mr. Coyne. Aren't you in fact comparing Newfoundland—when you do your DCF analysis for instance and you're getting information from the stock exchanges and building up your DSF—DCF estimates to determine your risk premium analysis and building up your DCF analysis to Board what their—what Newfoundland Power's ROE should be, are you not precisely looking at holding companies?

MR. COYNE:
A. Yes, you have to when you're using that capital market information, but you're doing so consistently. I'm not using it to try to make the determination you're making here -
JOHNSON, Q.C.:
Q. Okay.
MR. COYNE:
A. - of dividing one number by another that doesn't indicate whether or not the utility earned its earned return or not. What I'm doing with the DCF numbers is showing the growth rates for those companies projected by analysts or modified by GDP on a consistent basis that at the holding company level. I'm not mixing apples with oranges.
JOHNSON, Q.C.:
Q. Okay. Now, Mr. –
MR. COYNE:
A. Or this case persimmons.
JOHNSON, Q.C.:
Q. Okay now, Mr. Coyne, do you—would you regard it as material information for the Board to know whether the companies that are populating your US proxy groups actually

earn the allowed returns?
MR. COYNE:
A. If the Board wishes to have this information, it's something that can be researched and provided. The reason we provided it, as I mentioned in the case of Hydro Quebec, is that Regie in a prior order had requested that that evidence be brought before them, and we did the research and it shows just what I showed there.
JOHNSON, Q.C.:
Q. Well Mr. –
MR. COYNE:
A. That on average US utilities earn their allowed returns. It's our experience that they do so.
JOHNSON, Q.C.:
Q. Well Mr. Coyne, let us put it this way, Ms. Perry tended to agree or apparently agree with me that it's—it would be important to know what the track history is for earnings of the companies that Newfoundland Power is being compared to. Do you share her view?
MR. COYNE:
A. If—well, if the Board wishes to have that

information, it can certainly express so, and I'd respond to it.
JOHNSON, Q.C.:
Q. Well hold on now. That's not what I'm asking. I'm asking you whether you share her view.
MR. COYNE:
A. And which view specifically is that?
JOHNSON, Q.C.:
Q. That it would be –
KELLY, Q.C.:
Q. In fairness to the witness, if you're going to put that—you need to put the transcript to her.
JOHNSON, Q.C.:
Q. Okay. Well I'll find that in the transcript, but are you indicating that it's your view that this Board of Commissioners need not be concerned about whether the holding companies actually earned—have a track history of earning the allowed return? Is that your evidence?
MR. COYNE:
A. No, my evidence is not that--my evidence is based on the analysis that we've done that

presents a forward looking cost of capital analysis.
JOHNSON, Q.C.:
Q. Yes.
MR. COYNE:
A. Not a retrospective look at whether or not they did or did not earn allowed returns, but the research that we've done shows that on average US utilities do, just as on average Canadian utilities do.
JOHNSON, Q.C.:
Q. Well, Mr. Coyne, can you –
MR. COYNE:
A. It's typically not an issue of controversy.
JOHNSON, Q.C.:
Q. Mr. Coyne, are you able to file something as an undertaking that provides other data to indicate that these holding companies actually earned the returns?
MR. COYNE:
A. It's not a holding company issue. It is an operating company issue, and to do so would require a significant research going over a long period of time at each of the operating company's level.

JOHNSON, Q.C.:
Q. I see.
MR. COYNE:
A. Companies. So it's not, as I mentioned yesterday, it's not an insignificant task and you have to sort your way through the accounting data in a reliable way to be able to do so. It's not as simple as looking at a page in this report of holding company level data and say that I understand whether or not this utility earned its allowed return or not. Some of these utilities file annual reports that have the earned return in them, and you can rely on them in those cases. And otherwise you need to look at the book data, the book regulated data for the utility, and then make sure that you have one that they're actually using for rating making purposes. So it's not an insignificant task to do so.
JOHNSON, Q.C.:
Q. Right, and it's your view, is it, that American US utilities typically earned their allowed return, is it?
MR. COYNE:

A. Absolutely.
JOHNSON, Q.C.:
Q. Okay. We passed over a document from the consulting firm Oliver Wyman. Did you see that?
MR. COYNE:
A. It was in your cross-examination documents, yes.
JOHNSON, Q.C.:
Q. Yes.
MS. GLYNN:
Q. It's number 11 from the correspondence and that would be entered as Information Number 21.
JOHNSON, Q.C.:
Q. Pardon me?
MS. GLYNN:
Q. Information Number 21.
JOHNSON, Q.C.:
Q. Yes.
MS. GLYNN:
Q. And I believe it's 11 from your correspondence.
JOHNSON, Q.C.:
Q. Thank you. Mr. Coyne, have you ever heard

of the Marsh & McLennan Companies?
MR. COYNE:
A. Yes, yes.
JOHNSON, Q.C.:
Q. Have you ever heard Oliver Wyman?
MR. COYNE:
A. Yes, McLennan is a big pension fund company and also does human resources related work. I'm not as familiar with the work of Oliver Wyman, but I have heard the name.
JOHNSON, Q.C.:
Q. Well this is a recent document from Oliver Wyman. I under—it's copyrighted 2015. So it appears fairly recent, and it on the front page indicates that. "This is a new analysis from Oliver Wyman suggesting that utilities have a solid foundation to participate, grow and deliver strong investor returns in the North American market." Now are you aware of what they say about whether US utilities typically make their allowed returns?
MR. COYNE:
A. No.
JOHNSON, Q.C.:

Q. You're not?
MR. COYNE:
A. I flipped through the document, but I'm not aware of any specific comments they made in the regard.
JOHNSON, Q.C.:
Q. Okay. Could you turn to page 10? And you see the—page 10 under that bullet, "Focus on cost management" -
MR. COYNE:
A. Um-hm?
JOHNSON, Q.C.:
Q. - "to better earn allowed returns." And they say, "Look within first. The average utility does not earn its allowed return on equity. 2014 the average return on equity was 8.1 percent. To earn their allowed returns utilities need to reduce non-fuel operating and maintenance expenses around"—"about ten percent annually." In general most utilities could stand to improve their management performance. A ten percent expense reduction is difficult to achieve and sustain, but will certainly go a long way to improve future earnings." So what's

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your reaction to that?

MR. COYNE:

A. Well it's not at all clear to me what work they've done to reach that conclusion. I don't know again if they're looking at holding company data. For all I know it could be the type of data that we just looked at here. As I just described, determining whether or not a utility has or has not earned its allowed return is—takes some work.

JOHNSON, Q.C.:

Q. Yes.

MR. COYNE:

A. And I'm not—I don't see Oliver Wyman in the utilities space, so I'm not sure what work they've done to reach that conclusion.

JOHNSON, Q.C.:

Q. So are you aware of anything like in terms of a report or paper recently which would, you know, from somebody like an Oliver Wyman or an another big consulting group which would rebut this assertion that the—they on average don't make their returns?

MR. COYNE:

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A. Well, you've just looked at the analysis that we did in Hydro Quebec.

JOHNSON, Q.C.:

Q. Oh I see. So we'll compare that now to Marsh and McLennan.

MR. COYNE:

A. Well –

JOHNSON, Q.C.:

Q. Okay.

MR. COYNE:

A. We have a team of people—we have a team of 60 people that do this day in and day out, and they're looking at the proper data to make those types of determinations. Down below they say, "Oliver Wyman believes the utilities are a smart bet for the new grid. Our new analysis suggests the utilities will have a strong earnings platform especially for the near term." So yeah, I don't know where to take those two conclusions. If they're not earning their returns, why are they betting on them?

JOHNSON, Q.C.:

Q. Oh well, we come back to the Oliver Wyman report.

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MR. COYNE:

A. But it is—they do say one thing that I agree with here, and that is that utilities need to manage their costs in order to be able to earn their returns.

JOHNSON, Q.C.:

Q. Yes.

MR. COYNE:

A. And I fully agree with that.

JOHNSON, Q.C.:

Q. Yes.

MR. COYNE:

A. It's not a given that a utility earns its return. They have an opportunity to earn their allowed return and that's what's important, but it's not a given. It takes a sound management team to be able to do so; good management practices.

JOHNSON, Q.C.:

Q. Okay.

MR. COYNE:

A. It's not a slam dunk.

JOHNSON, Q.C.:

Q. So I guess to summarize you're saying, "Look, take my word for it; not Oliver

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Wyman's on this point," right?

MR. COYNE:

A. I would say take the research that we have done.

JOHNSON, Q.C.:

Q. Okay.

MR. COYNE:

A. Not my word.

JOHNSON, Q.C.:

Q. I just want to understand where you are on that.

MR. COYNE:

A. I would like to know what research they've done. I could better address this. You've given me this just beforehand. I haven't had a chance to look at what they've done. If you did so, I might be able to make more meaning out of it.

JOHNSON, Q.C.:

Q. Well, I gave it to you, gave it--sent over on March 31st.

MR. COYNE:

A. Well, with nothing behind it. I don't know what's behind this report. I don't know what their analysis is.

JOHNSON, Q.C.:
Q. That's fine.
MR. COYNE:
A. There's no way for me to really look at it, given—based on what you've given me.
JOHNSON, Q.C.:
Q. I see. Well, so I take it –
MR. COYNE:
A. And we work with these utilities on their allowed returns; you know we do this work every day.
JOHNSON, Q.C.:
Q. Okay.
MR. COYNE:
A. And utilities, as we discussed yesterday, if they feel as though they're not able to earn their allowed returns, they have the option to come in for rate cases.
JOHNSON, Q.C.:
Q. Right. How many utility clients do you have?
MR. COYNE:
A. My firm?
JOHNSON, Q.C.:
Q. You.

MR. COYNE:
A. Well, I don't know that I can specify the number, but we work—I work for a broad number of clients in both the US and Canada. And my firm works in all 48 states and across most jurisdictions in Canada. So we have access to a lot of information in this regard.
JOHNSON, Q.C.:
Q. Okay, but evidently not this report.
MR. COYNE:
A. It's not something that we rely on, no.
JOHNSON, Q.C.:
Q. Okay. So in terms of the ability for Newfoundland Power to recover costs and earn their returns, I understand that the credit rating agencies for instance, they grade Newfoundland Power pretty darn highly, is that your understanding as well?
MR. COYNE:
A. Yes, they give them a solid ranking as a regular.
JOHNSON, Q.C.:
Q. Yes, like A, big A, small A, I think Moody's or—for their ability to recover their costs?

MR. COYNE:
A. They rank them highly.
JOHNSON, Q.C.:
Q. Yes.
MR. COYNE:
A. Yes.
JOHNSON, Q.C.:
Q. And just one thing I noticed about the—if you go back to the AUS Monthly Report, you see column number 19?
MR. COYNE:
A. I do.
(9:30 a.m.)
JOHNSON, Q.C.:
Q. And so their—or column number 18, the S&P Bond rating?
MR. COYNE:
A. Um-hm.
JOHNSON, Q.C.:
Q. I see a lot of like, you know, Bs, triple Bs, B minus, triple B plus. The bottom—some of the bottom companies are A minus, A, A minus, and going down to the combination gas and electrics, you know quite a smattering in the B range, although mind you some As.

So in terms of the universe of US utilities, would they—I take it that there's no a large number of utilities that are up in that A category as considered by S&P?
MR. COYNE:
A. There are, if you look at the universe utilities including those that are public, we have some that are triple A, some that are double A in others.
JOHNSON, Q.C.:
Q. Yes.
MR. COYNE:
A. So this—they're not looking at the entire universe of utilities.
JOHNSON, Q.C.:
Q. Yes, but like your –
MR. COYNE:
A. So, but -
JOHNSON, Q.C.:
Q. But your average utility is not A though, is it?
MR. COYNE:
A. Oh the—I think the average utility is probably either A minus or in that range.
JOHNSON, Q.C.:

Q. Okay. So let's just turn to CA-NP-126.

MR. COYNE:

A. And that's one of the reasons why we screened on credit rating. You want—a credit rating. You wanted those that were most like Newfoundland Power. Is this an attachment?

JOHNSON, Q.C.:

Q. Yes.

MR. COYNE:

A. Okay.

JOHNSON, Q.C.:

Q. It's only a small attachment.

MR. COYNE:

A. Okay, and what was the number?

JOHNSON, Q.C.:

Q. CA-NP-126.

MR. COYNE:

A. 126. I have it.

JOHNSON, Q.C.:

Q. Okay, and so if we could, just flip up to the actual question for a moment. Yes, so this was a question posed that where we said, "In answer to an information request in a 2010 Line 9 hearing before the NEB,"

I'll cut out a little detail there, "Ms. McShane provided the following histogram of the number of US utilities in each bond rating and their respective business risk scores. Can Mr. Coyne update this histogram and/or comment on whether it is no longer appropriate" - or "accurate for US utilities?" So we see what Ms. McShane's histogram was showing. Basically certainly not many in that A range relative to all the lowers, and you updated the histogram for us?

MR. COYNE:

A. Yes, we did.

JOHNSON, Q.C.:

Q. Which is on the attachment?

MR. COYNE:

A. Right.

JOHNSON, Q.C.:

Q. Yes, right there. So you have it graphed and presented numerically. So we only see like four percent that would be considered an A grade by S&P, is that right?

MR. COYNE:

A. That's right.

JOHNSON, Q.C.:

Q. And only 23 percent being A minus according to S&P?

MR. COYNE:

A. Right.

JOHNSON, Q.C.:

Q. Yes.

MR. COYNE:

A. Yeah.

JOHNSON, Q.C.:

Q. So like I think Fortis has an S&P rating of A minus. Are you aware of that?

MR. COYNE:

A. Yes.

JOHNSON, Q.C.:

Q. Okay, and so you--Newfoundland Power for instance from DBRS has an A rating. Would you expect that they would have an A rating from S&P?

MR. COYNE:

A. An A rating from S&P?

JOHNSON, Q.C.:

Q. Yes, Newfoundland –

MR. COYNE:

A. I have no way to determine what the rating

would be.

JOHNSON, Q.C.:

Q. Would you expect their rating to be higher than Fortis Inc.?

MR. COYNE:

A. Probably not.

JOHNSON, Q.C.:

Q. It wouldn't be higher than Fortis Inc.?

MR. COYNE:

A. Again, it's speculation on my part.

JOHNSON, Q.C.:

Q. Are you aware that S&P has rules regarding the rank—the ratings that they give to subsidiaries that are ring fenced?

MR. COYNE:

A. The subsidiary needs to be ring fenced in order for it to give it a higher credit rating.

JOHNSON, Q.C.:

Q. Right. Otherwise, they—you're—they're below the—there's a limit to how the parent can be above the utility?

MR. COYNE:

A. Unless they're ring fenced.

JOHNSON, Q.C.:

Q. Right.
MR. COYNE:
A. My understanding, this company is.
JOHNSON, Q.C.:
Q. Right.
MR. COYNE:
A. Properly insulated from its parent in that regard.
JOHNSON, Q.C.:
Q. Okay.
MR. COYNE:
A. And this Board insisted that it be so.
JOHNSON, Q.C.:
Q. So seventy-odd percent of US investor-owned utilities are a triple B plus and lower?
MR. COYNE:
A. Investor-owned utilities, yes.
JOHNSON, Q.C.:
Q. Investor-owned utilities.
MR. COYNE:
A. This does not include the publics.
JOHNSON, Q.C.:
Q. It doesn't include the publics, okay.
MR. COYNE:
A. We have some publics that are triple A,

double A and single A.
JOHNSON, Q.C.:
Q. Yes, okay.
MR. COYNE:
A. If you looked at the universe of utilities, it would all shift to the left.
JOHNSON, Q.C.:
Q. Okay. These are investor owned, so out of investor owned we see 38, 42 percent would be triple B and below?
MR. COYNE:
A. That's correct.
JOHNSON, Q.C.:
Q. Yes.
MR. COYNE:
A. Yeah, and that's why we screened on credit rating to do our proxy groups.
JOHNSON, Q.C.:
Q. Yes.
MR. COYNE:
A. Our average or the average credit rating in our proxy group is E minus.
JOHNSON, Q.C.:
Q. Yes.
MR. COYNE:

A. So we screen carefully for companies that have credit ratings comparable to this company.
JOHNSON, Q.C.:
Q. So when a US investor is looking at the universe of US investor-owned electric utilities, do you have any evidence to suggest that they can differentiate between, you know the—or the 42 percent that are in the triple B and below versus the numbers that are in the A minus for instance?
MR. COYNE:
A. They certainly do. Yes.
JOHNSON, Q.C.:
Q. They do, do they?
MR. COYNE:
A. Those that are lower ranked pay higher costs for their capital.
JOHNSON, Q.C.:
Q. Okay.
MR. COYNE:
A. As it should be. They're riskier.
JOHNSON, Q.C.:
Q. Okay.
MR. COYNE:

A. That's why one does not want –
JOHNSON, Q.C.:
Q. And where is your –
MR. COYNE:
A. One does not want to slip –
JOHNSON, Q.C.:
Q. Where is your evidence of that though? That's an assertion you're making. Where is your evidence of that?
MR. COYNE:
A. Would you like to turn to my Rebuttal Evidence? We have a graph showing the difference between a triple B cost of debt and an A cost of debt. We have it in multiple places.
JOHNSON, Q.C.:
Q. Yes, but I'm talking about what—an equity investor, if they're looking at this universe.
MR. COYNE:
A. If you –
JOHNSON, Q.C.:
Q. Would an equity investor not look at the US utilities broadly without making a differentiation about someone is up at A

minus or A?

MR. COYNE:

A. It would not be necessary for me to do so, because I was focussed on companies with credit ratings like this one for purposes of my analysis. I wasn't trying to examine the entire universe of US utilities.

JOHNSON, Q.C.:

Q. I see.

MR. COYNE:

A. That would not be a good use of my evidence and it wouldn't be informative to the Board. I was trying to examine those for a proxy group.

JOHNSON, Q.C.:

Q. I see.

MR. COYNE:

A. That looked like the target company that we were estimating the cost of capital for. One would never do that. It just wouldn't be informative.

JOHNSON, Q.C.:

Q. Let's talk about the concept of integration with the United States market.

MR. COYNE:

A. Yes.

JOHNSON, Q.C.:

Q. Between Canada and the United States. Okay? And leaving for a moment how the market in the United States broadly views the ability of the US utilities to earn returns versus in Canada. Now Newfoundland Power is Fortis.

MR. COYNE:

A. Um-hm.

JOHNSON, Q.C.:

Q. Its shares are listed for trading. Are they listed for trading outside of Canada, are you aware?

MR. COYNE:

A. I'm not aware that they are, no.

JOHNSON, Q.C.:

Q. Okay. In fact you're aware that they're not I take it?

MR. COYNE:

A. That's my understanding

JOHNSON, Q.C.:

Q. Right. And could we turn to Cross Aid Number 2 that was sent over to you on April 1st? Yes, it's the April 1st. It's the Item

Number –

(9:40 a.m.)

MS. GLYNN:

Q. FortisBC?

JOHNSON, Q.C.:

Q. That's right.

MS. GLYNN:

Q. So we'll enter that as Information Number 22.

KELLY, Q.C.:

Q. Yes, got it. Thanks.

JOHNSON, Q.C.:

Q. Now this—just to put this piece of evidence into perspective, this was evidence filed by FortisBC Energy Inc. on December 18th, 2015 in the GRA proceeding—or the BCUC proceeding that you have been involved in, Mr. Coyne, right?

MR. COYNE:

A. That's correct.

JOHNSON, Q.C.:

Q. Okay, so you recognize this question and this answer, right?

MR. COYNE:

A. I do.

JOHNSON, Q.C.:

Q. Okay. So in this question the Association of Major Power Consumers of BC I understand asked, on the first page there, "Please list the percentage of Fortis non-Canadian shareholders for each year since 2000."

MR. COYNE:

A. I see that.

JOHNSON, Q.C.:

Q. Right.

MR. COYNE:

A. Um-hm.

JOHNSON, Q.C.:

Q. And the response that we see at lines 23 to 27 on that, "FEI does not have the ability to access the requested Information back to the year 2000, but the chart below shows the percentage of Canadian versus non-Canadian shareholders, including Institutional ownership, from 2010 to the most recent available date. This data was obtained through Bloomberg and is based on publicly reportable holdings. Bloomberg only has this data available from 2010 onwards."

MR. COYNE:

A. Um-hm.

JOHNSON, Q.C.:

Q. So if we turn over the page, we actually see the shareholdings from 2010 to 2015 broken down by Canadian versus non-Canadian shareholders.

MR. COYNE:

A. I see that.

JOHNSON, Q.C.:

Q. And this—the source of the information is Bloomberg. Is that a source that you would accept?

MR. COYNE:

A. Yes.

JOHNSON, Q.C.:

Q. Okay. And so we see here that this data seems to be pretty steady at about, you know 18 to 20, 25 percent over those—that five-year period for non-Canadian ownership. Do you see that?

MR. COYNE:

A. I do see that.

JOHNSON, Q.C.:

Q. Okay.

MR. COYNE:

A. Yeah.

JOHNSON, Q.C.:

Q. Do you know if this would be unusual for a Canadian utility?

MR. COYNE:

A. To have that percentage of foreign ownership? I don't recall looking at it more broadly, but it strikes me as not unusual, no.

JOHNSON, Q.C.:

Q. And why does it strike you as not unusual?

MR. COYNE:

A. Well, we have integrated financial markets specifically between the US and Canada and globally these days. So foreign investors are looking for returns wherever they can find them and they're looking for diversification across geographic boundaries as well.

JOHNSON, Q.C.:

Q. Oh, so you're regarding the relatively low numbers of non-Canadian shareholders as evidence of an integration of the Canada/US market, are you?

MR. COYNE:

A. No, I said it's evidence of integrated global markets. It's broader than that.

JOHNSON, Q.C.:

Q. I see. Are you aware, Mr. Coyne, that neither Canadian utilities nor America which are part of your Canadian proxy group are listed outside of Canada in—on the New York Stock Exchange or NASDAQ?

MR. COYNE:

A. That's my understanding.

JOHNSON, Q.C.:

Q. And you –

MR. COYNE:

A. But that's not necessary to raise capital in the US to be listed on the New York Stock Exchange.

JOHNSON, Q.C.:

Q. I never asked you if it was.

MR. COYNE:

A. Well –

JOHNSON, Q.C.:

Q. Now are you aware that most Canadian companies are in fact, big Canadian companies are listed on the NYSE and NASDAQ?

MR. COYNE:

A. Some are; some aren't. Yes.

JOHNSON, Q.C.:

Q. Okay. Now TransCanada Corporation and Enbridge, I understand that they're both listed in the United States?

MR. COYNE:

A. I believe that's correct.

JOHNSON, Q.C.:

Q. Because they have huge pipeline assets in the United States, is that right?

MR. COYNE:

A. They both have substantial assets in the United States, yes.

JOHNSON, Q.C.:

Q. Okay. Why would you think or do you think that Canadian utilities are unattractive to non-residents and that the Canadian utilities such as Fortis managers don't see any value in a US listing, do you know?

MR. COYNE:

A. Well, you've asked two questions. Let's go to your first.

JOHNSON, Q.C.:

Q. Okay.

MR. COYNE:

A. You suggested that –

JOHNSON, Q.C.:

Q. That these –

MR. COYNE:

A. - Canadian invest—that foreign investors do not find Canadian investments as being attractive or Canadian utility investments?

JOHNSON, Q.C.:

Q. That's right. Do you agree with that?

MR. COYNE:

A. Well, this suggests to me that at least some do, and before we go too far, if you go back to the prior page of that answer it says that this includes institutional ownership. So it's not all ownership. It's just institutional ownership. It doesn't reflect the ownership of individual investors, and that's because those aren't reported through Bloomberg, and I think that that has to do with privacy concerns. So we don't know what the total –

JOHNSON, Q.C.:

Q. Are you saying that the 20 percent –

MR. COYNE:

A. Could I finish my answer, please? Okay.

JOHNSON, Q.C.:

Q. I just want to understand. Are you saying that the 20 percent is only including institutional investors?

MR. COYNE:

A. Yes, that's what the—that's what it says in the response.

JOHNSON, Q.C.:

Q. I don't read the response like that.

MR. COYNE:

A. Yes. Okay, the second line, "The chart below shows the percentage of Canadian versus non-Canadian shareholders, including Institutional ownership." So it's institutional ownership only that Bloomberg reports. They do not have the data on individual investors.

(9:45 a.m.)

JOHNSON, Q.C.:

Q. Well, but Mr. Coyne, if they're saying it includes, including—it doesn't say "including institutional ownership only," does it?

MR. COYNE:

A. Well that is the data.

JOHNSON, Q.C.:

Q. I see. Anyway, so are you aware as to whether – are you aware that Canadian residents get a dividend tax credit, which is not extended to non-residents, so that Canadian residents face a lower tax rate on dividend income from Canadian utilities versus non-Canadian utilities? Are you aware of that?

MR. COYNE:

A. Generally aware of this, yes. I'm not a tax expert.

JOHNSON, Q.C.:

Q. Okay. So all else constant, there is no incentive for a Canadian to hold foreign utility stocks, do you agree with that?

MR. COYNE:

A. I do not – from a tax standpoint?

JOHNSON, Q.C.:

Q. Right.

MR. COYNE:

A. Well, from a tax standpoint, perhaps no; from an investment diversification standpoint, I can't speak for that. My assumption is that Canadians look for

investment diversification and they're probably broadly invested in other markets.

JOHNSON, Q.C.:

Q. Are you –

MR. COYNE:

A. Just as U.S. investors are.

JOHNSON, Q.C.:

Q. Are you aware that Canadian residents have to pay withholding tax on foreign source dividends?

MR. COYNE:

A. On foreign source dividends?

JOHNSON, Q.C.:

Q. Right.

MR. COYNE:

A. I believe that's correct.

JOHNSON, Q.C.:

Q. Okay, and are you aware that U.S. residents face a withholding tax on Canadian source dividends?

MR. COYNE:

A. Yes.

JOHNSON, Q.C.:

Q. And are you aware that as a result of these holding taxes, pension funds and other utilities that do not pay tax have an incentive to invest in dividend paying shares from their own country?

MR. COYNE:

A. Yes, but that doesn't address then why we see such tremendous cross border investment that we do. There are tax considerations investing beyond your own borders, but yet we see substantial cross border investment certainly between the U.S. and Canada, and certainly between the utilities, they're aggressively pursue investments specifically from Canada in the U.S..

JOHNSON, Q.C.:

Q. Mr. Coyne, do you think foreign exchange risk plays a part in determining where investors invest?

MR. COYNE:

A. Yes.

JOHNSON, Q.C.:

Q. Have you – we sent over a cross-aid, but there's perhaps no need to reference it unless you're unfamiliar with it. Have you ever heard of the following phrase on a Canadian prospectus, and I just lifted this

from a recent Fortis prospectus in relation to a preference share offering that they were making, and it says, "The securities being offered under the short form prospectus have not been and will not be registered under the United States Securities Act of 1933, as amended, or any state's securities laws, and may not be offered or sold within the United States unless the securities are registered under the 1933 Act, or an exemption from the registration requirements of the 1933 Act is available". Are you aware that that appears on all Fortis prospectuses?

MR. COYNE:

A. I'm aware of that quote, and it's consistent with U.S. Securities Regulation. You have to be registered to sell the securities there. Again that's not to say that you can't buy the securities through a Canadian broker dealer in Canada, but that you must be registered in order to sell them directly to a U.S. buyer under the '33 Act, yes.

JOHNSON, Q.C.:

Q. So this means, I take it, that these

securities cannot be sold in the United States unless they're sold to an exempt purchaser or U.S. investors buy them on the TSX, is that right?

MR. COYNE:

A. U.S. investors buying them on the TSX, yes. The first part of your question?

JOHNSON, Q.C.:

Q. Unless they are sold to an exempt purchaser?

MR. COYNE:

A. Yeah, I'm not sure what an exempt purchaser would mean in that case.

JOHNSON, Q.C.:

Q. Well, I'm talking about the –

MR. COYNE:

A. Under the '33 Act?

JOHNSON, Q.C.:

Q. Yeah.

MR. COYNE:

A. Well –

JOHNSON, Q.C.:

Q. You don't know?

MR. COYNE:

A. No, I don't know the answer to that question.

JOHNSON, Q.C.:

Q. Okay.

MR. COYNE:

A. I would stipulate, though, that, yes, you do need to buy those securities in all probability on the TSX and not in the U.S. under those restrictions.

JOHNSON, Q.C.:

Q. So do you –

MR. COYNE:

A. Which you're able to do so.

JOHNSON, Q.C.:

Q. Do you think that this is – you know, this type of thing, this is on the very front page of these prospectuses, right, you're aware of that?

MR. COYNE:

A. I don't know where it is in the prospectus. We could look to see where it is.

JOHNSON, Q.C.:

Q. Well, subject to check, would you take it that it's on the very first page at the top?

MR. COYNE:

A. If you say so, I accept that.

JOHNSON, Q.C.:

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Q. Okay, I do say so, Cross-Aid 3, just for the record, and maybe we should refer to it so that it will be formally on the record.
MS. GLYNN:
Q. We'll enter that as Information 23.
JOHNSON, Q.C.:
Q. Okay.
MR. COYNE:
A. All right, thanks.
JOHNSON, Q.C.:
Q. Do you see it right up at the top there of the screen, Mr. Coyne? It's very small.
MR. COYNE:
A. And where are you looking, which paragraph?
JOHNSON, Q.C.:
Q. At the very top line. It even appears before – there you go, it's up there, part way down, "The securities being offered under the short form prospectus have not been and will not be registered", and you can read it there. That's in relation to a 600 million dollar short form prospectus in relation to redeemable fixed preference shares for Fortis. So do you think, Mr. Coyne, that this is consistent with a

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completely integrated capital market between the United States and Canada, where Canadian and U.S. investors, you know, look at each other's stocks as being equivalent?
MR. COYNE:
A. Absolutely.
JOHNSON, Q.C.:
Q. You do?
MR. COYNE:
A. Each have their own securities laws that have to be adhered to. Each company makes its own decision in terms of where it most efficiently raises capital, both debt and equity capital, and if you can have a fully subscribed issuance within your home market, then that's fine; if you need to go more broadly, you do, but again you can raise capital on your own stock exchange that come from either domestic sources or foreign sources. So the amount of – if the issue here is the amount of capital flowing in and out of the utilities industry across our borders, I would think that that would certainly not be an issue, especially with this company which is actively investing in

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the United States. We see significant cross border flows of Fortis capital into the U.S..
JOHNSON, Q.C.:
Q. Mr. Coyne, just let me talk for a bit about the concept of integrated market for a moment. Would an example of a fully integrated market be, say, for instance, the gold market? We know worldwide what the cost of an ounce of gold is, right?
MR. COYNE:
A. There's a global market in gold, yes.
JOHNSON, Q.C.:
Q. That's a fully integrated market, right?
MR. COYNE:
A. When you say fully integrated, perhaps you could define that more precisely. I don't think I've used the term "fully integrated", so I'm not sure where you're going with fully integrated for gold.
JOHNSON, Q.C.:
Q. Okay.
MR. COYNE:
A. It's a highly specialized market, sophisticated traders and large institutions

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and countries, so I don't know if I would call it fully integrated. It's certainly a global market.
JOHNSON, Q.C.:
Q. Would you regard it as highly integrated?
MR. COYNE:
A. When you refer to "integrated" in the context that I've used it, I'm talking about between countries, and certainly gold is a globally traded commodity. In that sense, I guess you could say so, but I want to see where you're going before I – I use the term "highly integrated". It's a global market for gold.
JOHNSON, Q.C.:
Q. Okay, but, I mean, utility stocks are priced differently in each country, there's different risk free rates, there's different currencies, all that sort of thing figures into it?
MR. COYNE:
A. Yes.
JOHNSON, Q.C.:
Q. Now can we just turn to Dr. Booth's Report for a moment at page 25. Just on the

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previous page, just to put that chart in perspective, at page 24 the question is, "What is your forecast for the long Canada bond yield for 2016/2017", and Dr. Booth answers, "The current January 8, 2015 RBC forecast is below", and, of course, RBC provides the forecast for both Canada and the United States, are you aware of that?

MR. COYNE:
A. Yes.

JOHNSON, Q.C.:
Q. Okay, and do you see the fourth quarter of 2015 for the 30 year in Canada?

MR. COYNE:
A. I do.

JOHNSON, Q.C.:
Q. At 2.16 percent?

MR. COYNE:
A. Right.

JOHNSON, Q.C.:
Q. And the United States 30 year at 3.02 percent, so significantly higher?

MR. COYNE:
A. I do see that.

JOHNSON, Q.C.:

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Q. And if we go right along the forecast period from the first quarter of 2016 to the fourth quarter of 2017, I think that you'll confirm that there is a persistent spread between the risk free rate in Canada and the risk free rate in the United States?

MR. COYNE:
A. I see that.

JOHNSON, Q.C.:
Q. And if these markets are integrated to the extent that you're suggesting to the Board, why is the risk free rate significantly higher in the United States than in Canada?

MR. COYNE:
A. In the short term there's a stronger economic outlook in the U.S. than there is in Canada, and as a result of that there are greater inflationary pressures in the short run. We talked about this yesterday, and there's also a dislocation in government bond markets where central banks are acting to move bond markets in such a way that they're not in equilibrium, and you can see this kind of disparity as a result. What we looked at yesterday, which I think is

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important for this analysis, is what utilities are paying for capital, and my analysis showed that U.S. and Canadian "A" rated utilities are paying within 11 basis points of each other for their debt capital. So that's what's really important. The credit spreads are higher in Canada than they are in the U.S., which offsets this differential to bring it within 11 basis points.

JOHNSON, Q.C.:
Q. Yes, I – I didn't have a chance to read the transcript last night because it went into my junk box, but I thought I recollected you to say that the cost of debt was – there was a higher spread now than in 2012, right?

MR. COYNE:
A. Yes.

JOHNSON, Q.C.:
Q. Yeah, but the cost of debt now, how would that compare to 2012?

MR. COYNE:
A. Higher.

JOHNSON, Q.C.:
Q. The cost of debt is higher now, is it?

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MR. COYNE:
A. Yes, that's what we discussed yesterday. Can I bring that up?

JOHNSON, Q.C.:
Q. I see.

MR. COYNE:
A. Can I bring up the exhibit?

JOHNSON, Q.C.:
Q. No, I –

MR. COYNE:
A. Because I think it directly corresponds to this issue.

JOHNSON, Q.C.:
Q. Fair enough, if you want to bring it up.

MR. COYNE:
A. If we could go to my rebuttal evidence, I think that's where I updated the chart. It would be Figure 5 from page 19, if we can do that, because I think this is where it all comes together. At least, I hope it does. This is what utilities are actually paying for debt and it shows in this case a Canadian corporate "A" versus a Canadian utility "A", and you can see that they bottomed out in and around the period of the

last GRA, they went up again, they dipped again in the beginning – end of 2014 and beginning of 2015, and have now come up to the point where they're higher than they were the last time the company filed its GRA. So cost of debt for a Canadian utility is higher today than it was then.

JOHNSON, Q.C.:

Q. Where –

MR. COYNE:

A. If you look on the far end of the chart, that number is higher than it was back in September of 2012.

JOHNSON, Q.C.:

Q. How many columns or entries over from the right hand side? What does that right hand side represent?

MR. COYNE:

A. What is the right hand – it's percent bond yield.

JOHNSON, Q.C.:

Q. In terms of the date that you have on the 2016?

MR. COYNE:

A. I updated the data when I submitted my

rebuttal evidence, so it would have been March 18th.

JOHNSON, Q.C.:

Q. Right.

MR. COYNE:

A. So it's as far as we had the Bloomberg for value curves as of that date.

JOHNSON, Q.C.:

Q. So when I see the little valley there in bond yields just to the right of the screen, what date was that?

MR. COYNE:

A. Well, it's looking to me as though it was January. Which value are you talking about? Oh, the one back in May?

JOHNSON, Q.C.:

Q. I see the dip towards the right hand of the screen, if you could bring the cursor over a little bit.

MR. COYNE:

A. Right, I think that looks to be May, April/May.

JOHNSON, Q.C.:

Q. 2015?

MR. COYNE:

A. Right, about a year ago.

JOHNSON, Q.C.:

Q. I see.

MR. COYNE:

A. We've seen a lot of – that's about the time when we saw a dislocation in equity markets and debt markets in general. Investors have grown more weary of investments in all sources of capital since that period of time both debt and equity. We've seen more volatility in equity markets, and we've seen the reverberations in debt markets as a result of that, and also, I think, investors are taking a longer view even as bumpy of a road as it's been, they view both Canada - the forecasts are for both Canada and the U.S., to continue to grow out of the recessionary environment that we have been in in the past, and resume economic growth over the near term future.

(10:00 a.m.)

JOHNSON, Q.C.:

Q. Yes.

MR. COYNE:

A. So as a result of that, expectations are

that demand for money is increasing and there's more risk aversion in the market, so debt costs are up.

JOHNSON, Q.C.:

Q. Mr. Coyne, we also see, though, that utility recently, like your client, Maritime Electric, they agreed on a lower ROE by 40 basis points.

MR. COYNE:

A. 35.

JOHNSON, Q.C.:

Q. Was it 35?

MR. COYNE:

A. Yes.

JOHNSON, Q.C.:

Q. And then in Alberta, they had been at 8.75 on an interim basis back in around 2012, and then that got adjusted down to 8.3 percent, so sort of recognition that the cost of equity nevertheless is coming down, would that be right?

MR. COYNE:

A. No. Two issues; one is that reflected, as we mentioned yesterday, a settlement in Maritime Electric on a bunch of issues, so in their case that settlement did reduce their ROE from, I think, 9.7 to 9.35.

JOHNSON, Q.C.:
Q. Yes.

MR. COYNE:
A. Over a three year period, so my presumption is that they settled on a variety of issues and the ROE was part of that package. In the case of – we're look at cost of capital today, not what the AUC decided for the prior three years, and there are a host of witnesses before the AUC today to update that generic cost of capital, and their recommendations are in the 10s or 10s pluses.

JOHNSON, Q.C.:
Q. Mr. Coyne, are you familiar with the Fortis utilities south of the border called Central Hudson?

MR. COYNE:
A. Yes.

JOHNSON, Q.C.:
Q. And are you familiar with what's recently happened with their return on equity?

MR. COYNE:

A. I am not, no.

JOHNSON, Q.C.:
Q. It's a matter of evidence in this proceeding that they return on equity in July of 2015 was decreased by one full percentage point from where it had been set two or three years previously. Are you aware of that?

MR. COYNE:
A. What number is it now?

JOHNSON, Q.C.:
Q. 9. It had been 10. You didn't know that, did you?

MR. COYNE:
A. I did not. I could undertake to research if that's correct.

JOHNSON, Q.C.:
Q. Well, I'm just telling you it's factual, but you can take it subject to check, how is that?

MR. COYNE:
A. Yes, and –

JOHNSON, Q.C.:
Q. So would that indicate that there's some recognition south of the border that return on equity is coming down?

MR. COYNE:
A. Not based on that piece of evidence, no.

JOHNSON, Q.C.:
Q. Now Mr. Coyne, let's just talk about Dr. Booth's testimony further to put a few things into perspective in terms of returns that markets can expect, etc, okay. Could we turn to -

MR. COYNE:
A. Pardon me, I just want to make a note to look at that for you.

JOHNSON, Q.C.:
Q. Okay.

MR. COYNE:
A. Yes, Dr. Booth's evidence?

JOHNSON, Q.C.:
Q. Yes, please, page 58. By the way, does your firm do the cost of capital work for Central Hudson?

MR. COYNE:
A. We do do work in New York. I don't recall if we have done it for Central Hudson or not.

JOHNSON, Q.C.:
Q. Can you undertake to determine whether your

firm did the cost of capital work for Central Hudson in the work leading to the order of June or July, 2015?

MS. GLYNN:
Q. Is the undertaking accepted?

KELLY, Q.C.:
Q. Yes.

MS. GLYNN:
Q. Noted on the record.

JOHNSON, Q.C.:
Q. Thank you. Now at page 58 of Dr. Booth's Report, and again just for context, if we go back to page 57, Samantha, for a moment, and Dr. Booth now is turning to considering any other evidence on the validity of these types of expected return estimates that some of these models are producing, and then he refers to in his answer at the bottom of that page, "What's important is that there's another side to estimating the fair ROE and cost of equity capital. That is the required rate of return on the part of the investor. The cost of equity capital is also the expected rate of return", and he refers to defined benefit pension funds need

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this expected rate of return to determine whether a fund is in deficit or surplus, and he refers on the next page to the October 19, 2012 TD Economics, which produced its own analysis of long run returns of the type needed in defined benefit pension plans. So Mr. Coyne, I want to ask you a few questions about this. First of all, I take it you will confirm that your understanding is similar to ours and Mr. Booth's, that these are financial projections made by TD over the next decade and they made those back in 2012, right?

MR. COYNE:
A. According to Dr. Booth, yes.

JOHNSON, Q.C.:
Q. TD Economics is a good source to rely on?

MR. COYNE:
A. I'm aware of who they are. I think they're reasonable, yes, as a source.

JOHNSON, Q.C.:
Q. Okay, and in terms of the numbers that they're showing for the average annual returns for cash, bonds, equities in Canada and the United States, and internationally,

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I take it you would agree that these are geometic returns and they would need to be converted to arithmetic returns, is that correct?

MR. COYNE:
A. If they are geometic, yes, they would need to be converted.

JOHNSON, Q.C.:
Q. And I'm told that these are, in fact, geometric returns, and you'll see that the simple long run return of the risk premium of equities over bonds according to TD in 2012 was 4 percent. So you see the TD equities, Canada, they're at 7 percent on the geometric basis, and the bonds in the universe bond index are at 3 percent, so that's where that 4 percent difference comes in terms of the premium of equities over bonds. See that?

MR. COYNE:
A. Yeah, I see the math.

JOHNSON, Q.C.:
Q. And Dr. Booth then proceeds to convert these long run estimates of the equity returns from 7 percent to an average market return

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of 9 percent by going through a mathematical calculation process. Do you understand how he arrives at 9 percent?

MR. COYNE:
A. I can't say that I do.

JOHNSON, Q.C.:
Q. Okay. Well, as I –

MR. COYNE:
A. He's converting from geometric to arithmetic. Okay, I see that, yeah.

JOHNSON, Q.C.:
Q. So would you accept that 7 percent converted to arithmetic is around 9 percent?

MR. COYNE:
A. It sounds about right as a conversion.

JOHNSON, Q.C.:
Q. Okay. So if we converted that 7 percent going forward estimate of TD to 9 percent, would you agree with this calculation going from long run compound returns as simple average returns? We're clear on that, there's no dispute about that?

MR. COYNE:
A. I haven't done the math, but it sounds about right.

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JOHNSON, Q.C.:
Q. He does then another adjustment in his report to the bond returns, and to calculate what that spread between the bonds and the equity is and put it in an arithmetic fashion, that converts to a 5.6 equity risk premium over bonds using the same type of calculation, do you accept that?

MR. COYNE:
A. This is Dr. Booth's work, it's not my work, so I see what he has done here, I'll go that far. I have not checked his math in that regard.

JOHNSON, Q.C.:
Q. Okay, but you took no exception to his math when you did your rebuttal, for instance?

MR. COYNE:
A. No, I did not feel the need to do so.

JOHNSON, Q.C.:
Q. Okay, and so – now can we turn to Newfoundland Power's answer to CA-NP-014.

MR. COYNE:
A. I have all your books. What was the number?

JOHNSON, Q.C.:
Q. 014.

MR. COYNE:
A. Okay. Maybe I don't have that book. Let's see if I have it here. This pertains to Mercer?
JOHNSON, Q.C.:
Q. Yes.
MR. COYNE:
A. Right, okay.
JOHNSON, Q.C.:
Q. So in this answer, Newfoundland Power is indicating that – I'm reading from line 10, "The long term asset mix used by the company is 40 percent equities, and 60 percent bonds. Target mix of equities and bonds, together with the expected long term rates of return, assume in calculating the expected return on assets of 5.75 percent is shown in Table 1". So you see for equities, they have an expected return of 8.1 percent and for bonds 3.5 percent. I understand that if you convert the 8.1 expected return, because that's a compound return as I understand it, right -
MR. COYNE:
A. It would probably be so if it's geometric,

yes.
JOHNSON, Q.C.:
Q. And if you convert it, that 8.1 becomes a 9.6 percent return, okay, after adjustment, would you accept that?
MR. COYNE:
A. It sounds reasonable.
JOHNSON, Q.C.:
Q. And I think actually if we turn to CA-NP-269, Attachment "B" – before doing so, if you could come down that answer a little bit further.
MR. COYNE:
A. I think I have it here, thank you.
JOHNSON, Q.C.:
Q. Yes, I'm sorry, I missed this. In fact, Mercer did indicate that that would convert to a 9.6 percent at line 28.
MR. COYNE:
A. I see that, yes.
JOHNSON, Q.C.:
Q. So now if we could turn to CA-NP-269, Attachment "B", and this is a very recent AON Hewitt Capital Market Assumptions and Methodology, Canadian version of January 7th,

2006. So this would be pretty up to date. Have you had a chance to view this document, Mr. Coyne?
MR. COYNE:
A. Let me catch up to it.
JOHNSON, Q.C.:
Q. Certainly.
MR. COYNE:
A. 269, did you say?
JOHNSON, Q.C.:
Q. Yes, sir.
MR. COYNE:
A. Attachment "B", yeah, I see that.
JOHNSON, Q.C.:
Q. Okay. Could we go to page 3 of this, Samantha, 3 of 28, and I just want to read for the record that this document, they say, "Summarizes AON Hewitt Canada's 10 year forward looking capital market assumptions, CMAs, that are to be used in the determination of strategic portfolio allocations and related modelling or projection studies. The methodology described herein is also the basis of longer term 30 year capital market assumptions that

can be used to determine an expected long term portfolio return for the purposes of performing an actuarial valuation", and then go on to say, "The CMAs, capital market assumptions, presented in this document represent AON Hewitt Canada's best estimate view of future economic conditions and are established by a national committee comprised of investment and risk management practitioners. The determination of the CMA involves a thorough analysis of all available quantitative and qualitative resources, including but not limited to in-house analyses of historical returns, external analyses of long term historical returns, presented and published research articles, the actual state of the market, and the good judgment of the National Assumptions Committee. Additionally, the CMAs reflect the analyses and research done by AON Hewitt investment and risk management colleagues around the globe and are checked for global consistency". So would you view this as a very authoritative document?
MR. COYNE:

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JOHNSON, Q.C.:

A. I think I would just accept it for what AON Hewitt characterizes it as, for purpose of performing an actuarial evaluation for its clients.

JOHNSON, Q.C.:

Q. Well, it –

MR. COYNE:

A. I accept it on face value for how they describe it.

JOHNSON, Q.C.:

Q. So let us just turn to page 8 of AON Hewitt for a moment. So there AON Hewitt has shown the current and the long term target yield curves. This would be on the long Canada bond, I understand. Oh, short to long, all of the bonds, short term, medium term, and long term bonds.

MR. COYNE:

A. Right, that's a yield curve.

JOHNSON, Q.C.:

Q. Okay, I'm sorry about that. Now we see that they have the long Government of Canada yield curve significantly above what we have been experiencing recently. Is this – would that be a fair assumption that they're

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looking for the long Canada bond yield to increase about up to 4.8, about 1/8th percent, I think they say on the next page, which is just under 2 percent higher than at the time of their forecast. Would that be your understanding of this?

MR. COYNE:

A. That's what it shows.

(10:15 a.m.)

JOHNSON, Q.C.:

Q. Okay. So AON Hewitt, Mr. Coyne, they wouldn't view the current long Canada bond yields as being sustainable, and, I guess, would that be something that you and Dr. Booth would agree on?

MR. COYNE:

A. I think we agree on that.

JOHNSON, Q.C.:

Q. Okay, and what do you understand by the long term target, Mr. Coyne?

MR. COYNE:

A. Well, in this case I'm not sure if they're characterizing the Bank of Canada's long term target. It may be, because that would be an inflationary target consistent with

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what they have said, around 2 percent.

JOHNSON, Q.C.:

Q. It wouldn't be your understanding that this AON Hewitt forecast for the long Canada bond yield, that's not for the forecast test year, is it, it's not for 2016, for instance?

MR. COYNE:

A. I'm not sure if I understand your question.

JOHNSON, Q.C.:

Q. They are not saying that their long term target is for the test year 2016?

MR. COYNE:

A. They have a yield curve that much, or if it even has – it doesn't have a timeframe to it. It just shows maturity and describes long term target. If you go elsewhere in the report, they do have numbers associated with their projections. That's not a projection for a specific period in time.

JOHNSON, Q.C.:

Q. Okay.

MR. COYNE:

A. It's just a yield curve as of – well, as of their analysis.

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JOHNSON, Q.C.:

Q. In January.

MR. COYNE:

A. Apparently so.

JOHNSON, Q.C.:

Q. Just if we turn to page 19 for a moment. If you look at they have a summary of their expected long run returns by asset classes, and this is, I think you're probably aware, Mr. Coyne, this is what Dr. Booth has in Schedule 4 to his evidence as well. Are you familiar with this material?

MR. COYNE:

A. I'm familiar with what I'm looking at here. I'd have to go back to see what's in Schedule 4 of his evidence. We accept that, subject to check.

JOHNSON, Q.C.:

Q. No sweat. Do you see that they have an annual average return in the first column, and then the second is the compound return, right?

MR. COYNE:

A. Yes, I do see that.

JOHNSON, Q.C.:

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Q. And so as I understand it, this is the arithmetic versus the compound return. Is that your understanding as well?
MR. COYNE:
A. That's right.
JOHNSON, Q.C.:
Q. Okay. So if we look at the long run equity returns, AON Hewitt for Canadian equities has it at 7.1 percent. Do you see that?
MR. COYNE:
A. Are you on page 19? Yes, and they have 8.3 for average annual.
JOHNSON, Q.C.:
Q. Yes, which they convert then to a simple average or arithmetic return of 8.3 percent?
MR. COYNE:
A. I see that.
JOHNSON, Q.C.:
Q. Okay, and they also show average annual standard deviation?
MR. COYNE:
A. Right.
JOHNSON, Q.C.:
Q. And that's the stock market volatility of standard deviation of 17 percent, and I

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understand Dr. Booth uses a standard annual deviation of 20 percent. So there's not much difference between what Dr. Booth says in that regard and what's here. Is that your understanding as well?
MR. COYNE:
A. I would leave that to Dr. Booth.
JOHNSON, Q.C.:
Q. Okay, and for the United States, U.S. equities, we see U.S. equities and then we see U.S. equities hedged, right, Mr. Coyne?
MR. COYNE:
A. Yes, I see that.
JOHNSON, Q.C.:
Q. And so that's where they're trying to make a conversion taking into account the currency difference between Canada and the United States, would that be right?
MR. COYNE:
A. I assume so.
JOHNSON, Q.C.:
Q. And they would have the 10 year compound return at 6.6 and the average arithmetic hedged at 8 percent?
MR. COYNE:

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A. I see that.
JOHNSON, Q.C.:
Q. Okay, and do you understand why they hedge, or I should say, make an exchange rate adjustment to the U.S. returns?
MR. COYNE:
A. Due to foreign currency fluctuations and the fact that if you're going to – you pay when you want to lock down a return where there's an exchange associated with it, and you can hedge to do so and pay to lock down that return, so you're not exposed to whatever those deviations might be.
JOHNSON, Q.C.:
Q. And would you agree with me that the exchange rate adjustment reflects different inflation rate and interest rates in Canada than the United States has?
MR. COYNE:
A. I don't know what's included in their hedge adjustment. I can't speak to that.
JOHNSON, Q.C.:
Q. Is that what a hedge adjustment would normally adjust for, inflation rate and interest rate differences between the two

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countries?
MR. COYNE:
A. There's a market for hedges that include a host of factors, including the overall liquidity in that product. So those would be two of the issues that might be considered, but there's a market for hedges, it's quite liquid in terms of cross border currency exchange.
JOHNSON, Q.C.:
Q. So let's put it this way. Without doing a hedge adjustment, you can't compare a U.S. dollar return with a Canadian dollar return, would that be your understanding?
MR. COYNE:
A. Well, they're giving it to us both ways a reason. You can choose to hedge it or not. Some companies will elect not to hedge; others will.
JOHNSON, Q.C.:
Q. Mr. Coyne, can we just turn to page 21 where there is a table that AON Hewitt used, and if we just go up to see the title of this table for a moment called, "Select Monthly Correlations", and my understanding, Mr.

Coyne, is that this is a table that tries to get at the level of correlation between selected instruments, debt instruments, equity instruments, in a variety of places; Canada, the United States, global equities, etc, and Mr. Coyne, I understand and I don't know if you'd agree with this, that what we're talking about here in terms of correlation is the extent to which two securities move together. Would you accept that?

MR. COYNE:
A. Yes, that's the definition of correlation.

JOHNSON, Q.C.:
Q. Okay, and if you look at Canadian equities, okay, and U.S. – if you look at Canadian equities and you come all the way over, you'll see a .6, right?

MR. COYNE:
A. I see that, yes.

JOHNSON, Q.C.:
Q. Okay, and if you come down to – do you see this table, Mr. Coyne, is indicating that there's a .6 correlation between Canada and U.S. equities?

MR. COYNE:
A. I see that number, yes.

JOHNSON, Q.C.:
Q. Okay, that's probably the simple way to do it, and do you see what the correlation between Canadian equities is and a merging market equities?

MR. COYNE:
A. I think that's also .6. These numbers are quite small.

JOHNSON, Q.C.:
Q. .6?

MR. COYNE:
A. I can't make it out. Maybe on the screen it's better.

JOHNSON, Q.C.:
Q. .6 or .7. Do you need to have Samantha adjust the screen?

MR. COYNE:
A. It looks like .8.

JOHNSON, Q.C.:
Q. .8?

MR. COYNE:
A. Now it looks like .6.

JOHNSON, Q.C.:

Q. What's that?

MR. COYNE:
A. I can't tell. I can't tell. You tell me what you think it is, and I'll accept it. That's an impossible chart to read.

JOHNSON, Q.C.:
Q. So U.S. equities or Canadian equities would be equally correlative with the merging – is it global equities or merging markets as the U.S. market, is that what AON Hewitt is telling us?

MR. COYNE:
A. I see those two correlations as being the same. I don't know what period of time this is done over – well, I think they tell us in the front of the report what time it's done over. The analysis that I did that I showed in JMC-1 shows that over the past 25 years, the TSX and S & P 500 have been correlated by .71, so I accept that based on the analysis I know I did. That's not that far off. It tells me they're highly correlated, but not perfectly correlated.

JOHNSON, Q.C.:
Q. In this correlation coefficient, I

understand that that's part of the beta coefficient, is that right?

MR. COYNE:
A. No.

JOHNSON, Q.C.:
Q. My understanding is that the beta coefficient is simply the correlation coefficient multiplied by the relative standard deviations of the security in the market. Is that correct?

MR. COYNE:
A. Yes, that's what beta is trying to measure is the correlation between a specific security in the broader market, yeah.

JOHNSON, Q.C.:
Q. And securities with higher correlation coefficients tend to have higher betas, is that right?

MR. COYNE:
A. Yes.

JOHNSON, Q.C.:
Q. And I'm told that correlation coefficient of 1 means the security moves identically with the market and offers no diversification benefits, is that also correct?

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MR. COYNE:
A. That's correct.
JOHNSON, Q.C.:
Q. And it is this correlation structure, as AON Hewitt shows in this chart, that that would be crucial for modern portfolio theory, would you agree with that?
MR. COYNE:
A. Crucial in what sense?
JOHNSON, Q.C.:
Q. It would be crucial for modern portfolio theory and institutional investors to know the degree of correlation when they're building their portfolios?
MR. COYNE:
A. Investors would like to know the correlations across various equity classes for making investments, yes.
JOHNSON, Q.C.:
Q. So they can have diversification?
MR. COYNE:
A. That's right.
JOHNSON, Q.C.:
Q. Right.
MR. COYNE:

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A. And they can manage return and risk in the process of doing so.
JOHNSON, Q.C.:
Q. So that they can know that they've got to be careful that if they invested one basket of investments and it moves in a highly correlated fashion with another basket, that that's not going to provide diversification. That would be my understanding.
MR. COYNE:
A. I share that.
JOHNSON, Q.C.:
Q. Okay, and that's very layman, I'll grant you. So would you agree that a table such as this with correlation coefficients are what institutional investors would need to build their portfolios?
MR. COYNE:
A. It's one of the tools they would use.
(10:30 a.m.)
JOHNSON, Q.C.:
Q. Can we turn to page 25 of AON Hewitt, so what they have set out here is the risk return relationship by asset class, and so you see a whole variety - like, on the very

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bottom of the chart you see real return bonds, which are very low, slightly above that, 91 day treasury bills, etc, and if you go all the way up, if you see the – let me just see here. The top of the range, as I understand it, for compound rate of return would be about 6 percent, a 10 year average annual model, 6 percent, which I think would convert arithmetically into 7.5 percent. Would you accept that conversion?
MR. COYNE:
A. That sounds about right.
JOHNSON, Q.C.:
Q. Okay, and this would be what AON Hewitt saying would apply to global equities, U.S. equities, would be approaching that number, listed infrastructure, you see listed infrastructure?
MR. COYNE:
A. I see that U.S equities is low volume at the top of that chart, yes.
JOHNSON, Q.C.:
Q. Now, Mr. Coyne, do I understand you to be saying in your analysis for Newfoundland Power's fair ROE that your expectation is

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that the TSX market is expected to return 13.46 percent on an infinite basis, on an infinite time period for your DCF analysis?
MR. COYNE:
A. We conducted a forward-looking DCF analysis that yielded that result, yes, based on analysts' forecasts.
JOHNSON, Q.C.:
Q. Okay, and just turn up JMC-5 and I think you want JMC-5 of the first part of the report, Smith, page 1 of 4. So this would be the Canadian companies that you're referring to in your DCF analysis, in terms of the broad Canadian market, right?
MR. COYNE:
A. This is the forward-looking test we did for the market equity risk premium using analyst forecast to explain, if I can –
JOHNSON, Q.C.:
Q. Sure.
MR. COYNE:
A. This is the forward-looking market equity risk premium we derive by using the DCF analysis in analyst growth forecast and we did this for both the TSX Stock Exchange

utilities, using their current stock prices, dividend yields and analyst forecasts, and we did the same for the U.S., S & P 500, so basically what we did is we ran a DCF model for each company in each market and then aggregated them in order to determine what the implied forward-looking market return was based on current market prices, dividend yields and analyst forecasts. And these are five-year analyst forecasts.

JOHNSON, Q.C.:
Q. They are five-year analyst forecasts?
MR. COYNE:
A. Right.
JOHNSON, Q.C.:
Q. And so you end up with, in column 4, secondary market investor required return of 13.46 percent and that would be the return that, the expectation is that the TSX is to provide?
MR. COYNE:
A. That's right.
JOHNSON, Q.C.:
Q. For what period of time is the TSX expected to provide that return?

MR. COYNE:
A. Well these are five-year forecasts, so in essence this is a five-year outlook.
JOHNSON, Q.C.:
Q. But as I understand the constant growth model of DCF that that depends upon an assumption of growth at that level on an infinite basis, is that my understanding?
MR. COYNE:
A. That's the cost in growth assumption, yes.
JOHNSON, Q.C.:
Q. Right, okay. And just incidentally, we have a whole slew of companies listed in this exhibit, Sun Life to, you know, and everybody can read them, Brookfield Asset Management, Saputo, et cetera, et cetera, and up top you have it called S & P TSX Utilities Index, why are you referring to the TSX Utilities Index there?
MR. COYNE:
A. Because I'm trying to track—the broadest indicator I have of the Canadian Stock Market and I do the same for the S & P 500 for the U.S. market. You're wondering why it says "utilities", it's TSX, it's not

utilities, that's the entirety of the TSX, is that your question?
JOHNSON, Q.C.:
Q. I'm sorry, yes, okay.
MR. COYNE:
A. That should just say "TSX".
JOHNSON, Q.C.:
Q. And, I mean, that is a very high expected return, nearly 13.5 percent. I mean, at that rate, an investor is what, doubling their money every what, five years or four years?
MR. COYNE:
A. No, I don't think it's that fast, but it is an aggressive growth rate.
CHAIRMAN:
Q. 13 into 72.
JOHNSON, Q.C.:
Q. Yeah, that's right, that's where you double it, isn't that right?
MR. COYNE:
A. It would be about that period of time.
CHAIRMAN:
Q. So five and a half years.
MR. COYNE:

A. And that's what is implied by the stock prices, dividend yields and expectations billed into those forecasts. What we do with that is we use it as, we use it as a test of whether or not the historically earned market equity risk premium is what investors are expecting today. This tells us this is what investors are expecting today based on those assumptions.
JOHNSON, Q.C.:
Q. But I don't know if we could find, if you went out in the Avalon Mall and said, what do you think the prospects are of getting 13 percent, I think people wouldn't know what you're talking about, would they?
MR. COYNE:
A. Well I haven't done the research at the Avalon Mall, but I have researched the stock prices, dividend yields and analyst forecasts.
CHAIRMAN:
Q. You wouldn't have to go to the mall, b'y, on that one.
JOHNSON, Q.C:
Q. Like, can you, I mean in all honesty, Mr.

Coyne, can you refer to any independent third party source, like an AON Hewitt or RBC or TD or a bank of Canada, I mean, I'll let you pick them, who can corroborate this view of the world?

MR. COYNE:
A. This is what this information is telling us, this is what these growth rates are providing and the market is providing. What we do with this is we use this and blend it with historic returns to try and come up with an indicator of what market participants are thinking about forward returns, that's the extent of it.

JOHNSON, Q.C.:
Q. So to answer my question, you cannot point to any independent third party source that would support this view of the world?

MR. COYNE:
A. No. What I have done is –

JOHNSON, Q.C.:
Q. Is that right, that you can't?

MR. COYNE:
A. I cannot, no. What I have done is we conducted a regression analysis to look at

the relationship—our premise here is that just looking backwards at historic equity market returns will not tell you what market equity returns are in a current very low interest rate environment. So we conducted -

JOHNSON, Q.C.:
Q. Just to –

MR. COYNE:
A. Can I finish?

JOHNSON, Q.C.:
Q. Go ahead.

MR. COYNE:
A. I want to put this in context. So what we did is conducted a regression analysis to test this relationship between historic market equity risk premium that existed across a wide range of interest rates and the current very low interest rates, and what that shows us is that there's an inverse relationship that's well understood and you would expect in a current low interest rate environment that the market equity risk premium would be higher, so this is one test of that. The other test of that

we did, was with our regression analysis. Both of us, both of those would get, as my point is, to a higher market equity risk premium than we've experienced historically by looking at records going back to the early 1900s, so that's the point of this.

JOHNSON, Q.C.:
Q. Mr. Coyne, AON Hewitt and TD and the other courses that Dr. Booth uses, they're forward-looking sources, right?

MR. COYNE:
A. They're forward-looking sources for actuarial analysis, they're not forward-looking sources for, what, let me just leave it there, they're forward-looking for actuarial analysis for those doing pension fund returns.

JOHNSON, Q.C.:
Q. But isn't AON Hewitt available to institutional investors as well?

MR. COYNE:
A. I suppose so, but you just read to me the purpose of their analysis was for actuarial analysis and that actuarial analysis is for pension fund returns.

JOHNSON, Q.C.:
Q. I see, so anyway, I guess your evidence is that this sky high projection which is implied by these forecasts of 13.46, this is what Newfoundland Power is relying upon in part for its 9.5 percent request from this Board?

MR. COYNE:
A. Let me go to the—I'll tell you how I have relied upon it. I would not—certainly not put it the way you have. If you go to page 29 of my report in Figure 13 that shows you my reliance, so what I've done there is shown that we have estimated—or not estimated, relied on the estimates of historic market equity risk premiums going back to, as long as the records have them for both the S & P 500 and the TSX and those are the 5.6 percent in Canada and the 7 percent in the U.S. And if we take that forward-looking view that we just characterized using the DCF analysis and we deduct from that the forward-looking view, on the equilibrium bond yield that I have utilized, deduct one from the other, that

gets you the forward-looking market numbers, the 9.8 percent return and 8.1. I averaged those together to get a 7.6 percent average return. If I were to—if I run this regression analysis to ask the question what's been the historic relationship between the market equity risk premium and interest rates, which is described on the next page, with current interest—with the current forecast interest rate or you can do it either with the current or the forecast interest rate, that gets you a 10.09 percent current forward-looking market equity risk premium. So you don't have to buy the number projected in that forecast to understand the principal that when interest rates are very low, equity investors have higher equity risk premium, expectations and the same is true when rates are higher. You have to try and estimate that some way and otherwise, you're just relying on a period of history that's not relevant to where we are today and not relevant to the next two or three years for this company. You have to adjust for it in some way, so what I've

done is I've taken the market information and I've done it one way and then I'll test it historically using a regression analysis which would point to even a higher number. So I'm not here to say that the TSX is going to return 13 percent in perpetuity; I don't think that's the case. But the important principal is that looking backwards for a hundred years of bond income and income returns on equities doesn't give you the right answer. You have to find some way to look forward and this is one way to do it.

JOHNSON, Q.C.:

Q. So that 13.45 number that we've been discussing, which of these numbers on your Figure 13 are influenced by that assumption?

MR. COYNE:

A. That is the 9.8 and that, again, I have weighted that equally with history in order to come up with the 7.6 which represents the average of them all. And again, that's the number that I tested against that regression analysis that I just described to you. So that's the entirety of the context.

JOHNSON, Q.C.:

Q. Just one further thing, Mr. Coyne, if we could just go back to AON Hewitt at page 20 to see that asset class risk reward relationship and you'll see that they show Listed Infrastructure or is that the right one?

MR. COYNE:

A. I see Listed Infrastructure, yes.

JOHNSON, Q.C.:

Q. And listed, as I understand it, just means listed on a stock exchange?

MR. COYNE:

A. I think they have the definitions in the front of the report.

JOHNSON, Q.C.:

Q. And would you accept that that's what it means, listed –

MR. COYNE:

A. Well let's look at the definition.

JOHNSON, Q.C.:

Q. Okay, sure.

MR. COYNE:

A. No, they don't give us a definition. I guess I can accept that.

(10:45 a.m.)

JOHNSON, Q.C.:

Q. Okay. Maybe just go to page 19 for a moment, there you go. Can we just go up, move the material up the screen for a moment? Keep moving, here we go. Listed unhedged infrastructure, 6.8 percent average annual return and would you agree, Mr. Coyne, that infrastructure would be quite akin to and similar to describing transmission and distribution assets?

MR. COYNE:

A. I have no idea what's in that, it could include, it probably does include a host of different type of infrastructure investments.

JOHNSON, Q.C.:

Q. Okay, Mr. Coyne, can we turn to page 26 of your report? Now this part of your report, you're starting a discussion around the capital asset pricing model which is one of the models that you used to arrive, I take it, at a risk premium estimate.

MR. COYNE:

A. Yes.

JOHNSON, Q.C.:

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Q. Right. And just to clarify on this, yesterday I recall asking you when I was suggesting to you that your analysis was two-thirds DCF, that you use DCF as part of your risk premium analysis and you said that you did not, as I understand it. Do you recall telling me that?
MR. COYNE:
A. Yes.
JOHNSON, Q.C.:
Q. But in point of fact, don't you actually use a DCF analysis to arrive at your risk premium?
MR. COYNE:
A. I used a DCF to test the forward-looking market equity risk premium that factors into it, yes.
JOHNSON, Q.C.:
Q. Okay, thank you. Now, and then you just used straight on DCF again, apart from the risk –
MR. COYNE:
A. I used straight on DCF for utility proxy group, yes.
JOHNSON, Q.C.:

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Q. Okay, thank you. Now critical to these risk premium estimates, I understand, is the risk free rate?
MR. COYNE:
A. Yes.
JOHNSON, Q.C.:
Q. Okay, and Newfoundland Power, as you're aware, is on a forward-average test year, is that your information?
MR. COYNE:
A. Yes.
JOHNSON, Q.C.:
Q. Okay, so the test year for which you're estimating the fair ROE for Newfoundland Power at 2016?
MR. COYNE:
A. Yes.
JOHNSON, Q.C.:
Q. And what is your estimate of the risk free rate to apply to the average 2016 test year?
MR. COYNE:
A. Well first of all, my understanding is that rates in Newfoundland are typically in place for about three years, but for the test year 2016, the forecast for the ten-year bond

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yield are 2.1 for Canada and 2.8 for the U.S.
JOHNSON, Q.C.:
Q. For the ten year. Now, as I understand it, if you take a ten year, a forecast for the ten-year bond in Canada, you then have to make an adjustment to it to reflect what the yield will be on the long Canada for that year, is that right?
MR. COYNE:
A. That's right, that's what we do in Figure 11 on page 27.
JOHNSON, Q.C.:
Q. So you add 71 basis points?
MR. COYNE:
A. That's right. That was the then current 30-year estimate as of August 2015, the difference between the 10 and the 30 year.
JOHNSON, Q.C.:
Q. But just to understand, you're not using a risk free rate for Newfoundland Power of 2.82 percent, which would be your 2.1 10 year Canada, plus your 71 basis point adjustment, you're using a different risk free rate for Newfoundland Power, right?

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MR. COYNE:
A. I'm using a three-year average forecast from Consensus Economics for '16, '17 and '18 and to that, I'm adding the 71 basis points for Canada or the U.S. to get to the 3.68 or the 4.29.
JOHNSON, Q.C.:
Q. Are you aware of –
MR. COYNE:
A. If we could put page 27 up, it might be helpful for everybody to see that. So just to explain then where the figure is in front of us, can you just scroll up one more line. Thank you. So a three-year outlook from Consensus Economics gives an average of 2.97 and 3.60 and to those, I'm adding the then current spread between the 30 and the 10 year to get to the 3.68 and the 4.29.
JOHNSON, Q.C.:
Q. I see. So, Mr. Coyne, are you aware of whether in this jurisdiction we present a risk free rate for rate setting purposes and arrive at it in this fashion using a three-year projection of the rate?
MR. COYNE:

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A. I'm aware that there's a lot of discussion here, as in elsewhere, in terms of what an equilibrium or forward-looking appropriate risk free rate is, so the information that I'm presenting describes something that gets you towards more of an equilibrium risk free rate and I thought it was an appropriate way to present this data information for these purposes.

JOHNSON, Q.C.:

Q. So if we were to ignore the 2017 and 2018 forecast that you've built into your risk free rate, we would be at 2.82 percent for 2016. You can confirm that, right?

MR. COYNE:

A. If you were to ignore it, but I don't know why you would ignore it. You can see that those aren't the expectations for forward-looking rates which would be the ones that an equity investor would consider when making this type of investment. I would note that all of these were lower than Dr. Booth's estimate or a risk free rate.

JONNSON, Q.C.:

Q. Just for clarification on the point, though,

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if we were to ignore, and you can disagree with whether we should and that's fair, it would lower your risk premium estimates by about .86 percent across the board, wouldn't it?

MR. COYNE:

A. Yes, I wouldn't ignore it, but it would do so.

JOHNSON, Q.C.:

Q. Okay. And I guess you would confirm that your United State's interest rate forecast are all higher to the—all higher than the Canadian forecast by about .6 percent or .63 percent on average from 2016 to 2018?

MR. COYNE:

A. That's right, consistent with the forecast, that's right, at the Government bond yield risk free rate level, that's right.

JOHNSON, Q.C.:

Q. Is there any reason to think or believe that the higher U.S. borrowing costs do not translate into a higher common equity cost for a U.S. utility?

MR. COYNE:

A. As we discussed earlier, the credit spreads

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between Canadian and U.S. utilities almost completely offset that differential, so no, I don't see that as being a—they were down 11 basis points, so if you factor the credit spread differential on top of this, they would be nearly identical. And I apply the U.S.—when I'm using the U.S. proxy group, I use the U.S. sample, when I'm applying it to the Canadian companies, I'm using the Canadian, and by doing so, I can compare the results to see if they're giving me the same range, how they compare to each other.

JOHNSON, Q.C.:

Q. Mr. Coyne, if we could just turn back to your Figure 13 Market Risk Premia for Canada and the United States.

MR. COYNE:

A. Which figure?

JOHNSON, Q.C.:

Q. Figure 13.

MR. COYNE:

A. Yes.

JOHNSON, Q.C.:

Q. SO this is looking, as you say, part of it is the historical is looking at backwards

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looking data which shows that the Canadian market risk premium, according to your report, is about 5.6 percent, again over the risk free rate, would that be right? And the U.S. is higher at 7 percent on a historic basis, that's your evidence, that's what your report indicates.

MR. COYNE:

A. On a historic basis, yes.

JOHNSON, Q.C.:

Q. Okay.

MR. COYNE:

A. The AON Hewitt report that you just went through and it shows that the opposite true is true on a going-forward basis for Canadian equities versus U.S. equities by about the same difference. There is a 70 basis point difference in their projected ten-year average return, with the Canadian return being projected higher.

JOHNSON, Q.C.:

Q. So let's just start at first principals for a moment then. The market risk premium is basically the extra return that investors require for investing in equities, rather

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than bonds, is that right?
MR. COYNE:
A. That's right.
JOHNSON, Q.C.:
Q. And then that becomes a benchmark that we use for judging the required return for low and risk securities, would that be fair?
MR. COYNE:
A. Well in the context of the CAPM-1, yes.
JOHNSON, Q.C.:
Q. So when you estimate the return on the equity market, how would you go about calculating it? Let me just put to you a scenario: if the stock starts at $100.00 and it pays a $5.00 dividend and ends the year at $105.00. I understand we would calculate the total return as 10 percent, so that would be 5 percent for the dividend return and another 5 percent for the capital gain in the stock, would that be your understanding?
MR. COYNE:
A. That's right.
JOHNSON, Q.C.:
Q. And so how did you calculate, at page 29,

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how did you calculate the rate of return on Government bonds?
MR. COYNE:
A. Well I didn't calculate it, I relied on the two sources that are used for this purpose, Duff and Phelps or Ibbotson that provides this data.
JOHNSON, Q.C.:
Q. And you refer to them up at page, on the same page up at lines 8 to 10.
MR. COYNE:
A. That's right. Morningstar and Duff and Phelps.
JOHNSON, Q.C.:
Q. Where you say historical MRP is based on the arithmetic mean of the equity market returns. Okay, so this was not something that you calculated, this was something that you took from these sources?
MR. COYNE:
A. Right, this is the commonly used source for these purposes.
JOHNSON, Q.C.:
Q. And what time period was used?
MR. COYNE:

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A. I think I have that in here. I'm going to say it's 1914 for the U.S. and I think it's a little later than that for Canada. It goes back over a very long period of time.
JOHNSON, Q.C.:
Q. Can you find out where that is?
MR. COYNE:
A. Mr. Chairman, it's five to the hour. Maybe he could look for it –
CHAIRMAN:
Q. Sure.
MR. COYNE:
A. Yes, I can identify that.
(RECESS – 10:57 A.M.)
(RETURN – 11:41 A.M.)
CHAIRMAN:
Q. So, Mr. Johnson, we're back to you and I understand we're going to around 1:15 or so and then we'll hear from Mr. Burry.
JOHNSON, Q.C.:
Q. Thank you.
MR. COYNE:
A. If I might complete –
JOHNSON, Q.C.:
Q. Yes, sir.

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MR. COYNE:
A. A check I was doing for you pertaining to Central Hudson, I can confirm that they were awarded a 9 percent return on equity. In a decision of June 27, 2015 it was a settlement for three years. They went in with a settlement at 9 percent and they have an earning sharing mechanism that kicks in at 9.5 where they share earnings above that number with customers, and it was on 48 percent equity. We did not provide evidence in that proceeding.
JOHNSON, Q.C.:
Q. They had been under a rate freeze, I think, prior to that year, as part of the deal when they bought the company?
MR. COYNE:
A. I don't know, if there were rate freeze provisions, I'm not aware of them.
JOHNSON, Q.C.:
Q. Okay. Did you find out about the time period you used when you did your market risk premia historical, the historical figures you present for 5.6 and 7 percent, Canada and United States, as shown in Figure

13?

MR. COYNE:
A. Yes, the sources for those are Ibbotson, Morningstar for the U.S. and the dates are 1926 to 2014, which were the most recent I had available at that time; and they are Duff and Phelps for Canada available from 1919 through 2014.

JOHNSON, Q.C.:
Q. 1919 to 2014?

MR. COYNE:
A. Yes.

JOHNSON, Q.C.:
Q. For Canada?

MR. COYNE:
A. Right.

JOHNSON, Q.C.:
Q. These are obviously the historic figures, okay.

MR. COYNE:
A. Right, and their calculation is a difference between equity returns and bond income returns.

JOHNSON, Q.C.:
Q. Bond income returns, yes, okay. And that's

how you're presenting them to the Board in Figure 13 as well, right, you are taking, you are presenting the risk premium over the bond income returns?

MR. COYNE:
A. That's correct.

JOHNSON, Q.C.:
Q. And I sent over to you a cross-examination aid, being Ms. McShane's evidence from the GRA from 2012. It's cross-aid 6.

MS. GLYNN:
Q. And we'll enter that as Information No. 24.

JOHNSON, Q.C.:
Q. If you could go to page 64 of Ms. McShane's evidence? Do you have that in front of you, Mr. Coyne?

MR. COYNE:
A. Yes, I see it.

JOHNSON, Q.C.:
Q. Okay, now you'll see that she, when she was providing her evidence, she, in addition to providing the premium, the risk premium over the bond income return, which is in the far right column, she also provided the risk premium over the bond total return.

MR. COYNE:
A. I see that.

JOHNSON, Q.C.:
Q. And I guess you did not present that information when you—you didn't present that methodology in your evidence to the Board this time, obviously.

MR. COYNE:
A. No, the way the data is typically calculated is over the income return because that is the true risk free rate and the number—what you're doing with that is you're using that to add to your risk free rate to get your forward-looking return, so we're not assuming anything other than the bond return and that forward-looking risk free rate that's consistent with looking at historically that way. The bond total return would include any appreciation in the bond yield. The true risk free rate is just the income portion of the bond yield.

JOHNSON, Q.C.:
Q. So just ignore everything else but the income that the bond generates?

MR. COYNE:

A. To get to the risk free rate, yes.

(11:45 p.m.)

JOHNSON, Q.C.:
Q. I see. So in terms of—so if we look at her table for the period 1924 to 20—and I think the way this is expressed, she expresses Canada and the United States separately, right? And so her 5.4 percent for the period 1924 to 2011 and her period of 1947 to 2011, they yield a 5.4 percent risk premium and 5 percent respectively, right?

MR. COYNE:
A. Yes, I see that.

JOHNSON, Q.C.:
Q. And what you're saying is that the historical risk premium in Canada is 5.6 percent?

MR. COYNE:
A. That's correct.

JOHNSON, Q.C.:
Q. Okay, and then she indicates that over that long period of time, the same periods in each case that the risk premium in the United States, historically, was 6.6 percent and 6.4 percent respectively. And you're

saying that it was 7 percent for the time period that you used?

MR. COYNE:
A. Well I'm not saying, it's source material, yes.

JOHNSON, Q.C.:
Q. Right, okay, well that's the material that you're –

MR. COYNE:
A. This is Ibbotson and this is Morningstar, respectively.

JOHNSON, Q.C.:
Q. And you are using slightly different periods of time, so in the United States, you're using 1926 to 2014, as opposed to Canada, 1990 to 2014?

MR. COYNE:
Q. 1919 to 2014.

JOHNSON, Q.C.:
Q. I'm sorry, 1919 to 2014.

MR. COYNE:
A. Right.

JOHNSON, Q.C.:
Q. So should we take from this, because this is basically a bit of an update to the period

that Ms. McShane was referencing in her last, when she testified at the last GRA, so are we to gather that the historic risk premium now has gone up just over the last few years since she gave evidence? Like, she, you know, she provides 5.4 and 5 percent for Canada for those periods and you're at 5.6, so has it gone up in that short period of time?

MR. COYNE:
A. Yes, it changes.

JOHNSON, Q.C.:
Q. And similarly in the United States, it's gone up to 7 from where it had been and this is ignoring completely the risk premium over bond total returns that Ms. McShane also presents and just looking at her risk premium over bond income returns.

MR. COYNE:
A. Yes, they change year to year, that's why we update it as the year book comes out. Those are three pretty strong stock market return years, that's not surprising.

JOHNSON, Q.C.:
Q. Mr. Coyne, could you just turn to Exhibit

JMC-8, page 1 of 1? This is in your capital asset pricing model and I'm looking at column 5, your average market risk premium for—and you will see at the bottom of the page where you're setting out the average market risk premium, you see at the bottom of the page, if you could scroll up a little tiny bit there, Samantha, source for the average market risk premium. Source average of the Duff and Phelps Canada historical risk premium, 1936 to 2013, and the Duff and Phelps U.S. historical risk premium, 1926 to 2013, so that would appear to be a bit different.

MR. COYNE:
A. Yeah, I don't know if those are footnotes that need to be updated, but I just called to confirm, so let me see if I can reconcile those. I assume—let me just double check, I'd be surprised normally through 2013, I think that might be a footnote that just wasn't updated.

JOHNSON, Q.C.:
Q. Perhaps what you can do is undertake to provide the data to which you referred.

MR. COYNE:
A. Well I have, I think I have already done so in responses to, just take a moment, I can probably do that right here on the stand. In response to Consumer Advocate 103 and 279, I've actually provided the data with those numbers and the years.

JOHNSON, Q.C.:
Q. The numbers for the years that you gave us just on the stand that time?

MR. COYNE:
A. Yes.

JOHNSON, Q.C.:
Q. I'll check that.

MR. COYNE:
A. But I'll just confirm that that was a simple matter of a footnote that wasn't updated. I'll still do that but the data that I've used certainly in response to both of those data requests and that is the 5.6 and the 7 respectively for those years.

JOHNSON, Q.C.:
Q. And did you receive—I take it your firm is a subscriber to the Duff & Phelps folks?

MR. COYNE:

A. Yes.
JOHNSON, Q.C.:
Q. Okay, and did you receive an advisory in March that they had made an adjustment to the estimate of the United States market risk premium?
MR. COYNE:
A. I don't know.
JOHNSON, Q.C.:
Q. Okay, and perhaps what we can do is turn you to Dr. Booth's rebuttal evidence at page 11. I don't know if we can make that a bit larger and scroll down a little bit there, Samantha. I'm sorry, the other way. This was an excerpt or a little blurb, if you will, that Dr. Booth received from Duff and Phelps in March month, I believe, where they indicate Duff and Phelps increases the recommended United States equity risk premium from 5 to 5.5 percent and they say "Duff and Phelps regularly review the fluctuations in global, economic and financial market conditions that warrant periodic reassessments of the recommended equity risk premium, ERP. Based upon the

current market conditions Duff and Phelps recommends an increase in the U.S. ERP to 5.5 percent when developing discount rates as of January 31st, 2016 and thereafter until further guidance is issued. The prior Duff and Phelps recommended the United States ERP was 5 percent established as of February 28th, 2013. Both of these ERP estimates were measured relative to a normalized yield of 4 percent on 20 year U.S. treasury bonds."
MR. COYNE:
A. Right.
JOHNSON, Q.C.:
Q. Okay, now just to put that into, so we can understand that, if we go back to—because they're saying it's moved from 5 to 5.5, right?
MR. COYNE:
A. On top of the 4 percent bond yield, not the historic bond yields.
JOHNSON, Q.C.:
Q. Oh, I see.
MR. COYNE:
A. So the historic bond yields have ranged from 1 percent to 13, 14 percent and they've been

all over the map, certainly more than 4 percent. If you go to my attachment A, page 279, if we could look at these in parallel, I think this might be informative. This is where I actually provide the data.
JOHNSON, Q.C.:
Q. Attachment A?
MR. COYNE:
A. Yes, and this is response to Consumer Advocate 279.
JOHNSON, Q.C.:
Q. Okay.
MR. COYNE:
A. I think this would resolve any confusion surrounding that. Is it possible to view that on the screen? I'm amazed at how fast you can get there, thank you. So this is the data. In this case this is from the Ibbotson year book and this is the data that I'm referring to from 1926 through 2014, and you can see that the market risk premium down at the bottom of this entire period of time, this is the U.S. market in this case, is 7.01 percent, so that's the number that I've used in my table. And you can see the

bond yields are, they range from 3 percent to 13 percent over this period of time and that's the important point, is that these risk premia vary considerably over time in relationship to those bond yields and because of these documents you've presented me, I asked to take a look at this to see what they were saying and in that same report they go on to say that "during periods in which risk free rates appear to be abnormally low due to flight to quality or massive central bank monetary interventions, valuation analysts may want to consider normalizing the risk free rate. By normalizing, we mean estimating a risk free rate that more likely reflects the sustainable average return of long-term treasuries." So this is consistent with the numbers that I've used and consistent with the approach that I've used.
JOHNSON, Q.C.:
Q. You've just pointed out that this Duff and Phelps advisory is measured relative to a normalized yield of 4 percent on 20-year U.S. treasury bonds?

MR. COYNE:
A. Right, that's what they say.
JOHNSON, Q.C.:
Q. What's the rate that you use for the risk free rate for the American companies?
MR. COYNE:
A. It is lower than that in the Canadian and the U.S. it is—here it is, 3.68 for Canada and 4.29 for the U.S., I'm sorry.
JOHNSON, Q.C.:
Q. Okay, 4.29.
MR. COYNE:
A. 3.68 and 4.29 respectively, yes.
JOHNSON, Q.C.:
Q. So, you know, that's, I guess, not a far distance off the 4 percent normalized yield that they are referring to, right?
MR. COYNE:
A. It's close, yeah.
JOHNSON, Q.C.:
Q. Yeah, so that would be a good independent indicator of what the U.S. equity risk premium would be by this, you know, reputable outfit?
MR. COYNE:

A. Well it's, that's lower than—well, okay, that's lower than what the history is there and –
JOHNSON, Q.C.:
Q. But the history –
MR. COYNE:
A. And they say, they go on to say that you need to normalize for the current risk free environment, so – restate your question, if you would.
JOHNSON, Q.C.:
Q. Well, can we just see the top of that screen that's there now? Okay.
MR. COYNE:
A. It would be ironic for the same firm to be saying that you have to normalize for risk free rates and in the interest rate environment that we are now, to have a lower risk premium than we've had historically. That just wouldn't add up for me. If the history is 7, I would expect something lower than that on a going-forward basis and for the same report, they say that you need to normalize the market equity risk premium for the risk free environment that you're in or

for the bond yield environment you're in.
JOHNSON, Q.C.:
Q. Do they report the total return on bonds as well?
MR. COYNE:
A. I believe you can get both, yes. But again we're looking for the risk free rate. If I want to use a total return for the bond yield, then I should do so on a going forward bond yield, but I can't do that because I'm not sure what the appreciation of the bond, the actual bond instrument is going to be. I only know the coupon on those bonds and the expected yield. And that's the way that you typically approach a CAPM model is to use only the risk free rate.
JOHNSON, Q.C.:
Q. Would you undertake to provide a table in the fashion that Ms. McShane has used in Table 9 of this cross-aid so that we can see what the risk premium over bond total returns would be, and as well as the risk premium over bond income returns would be, so we can make the comparison?

(12:00 p.m.)
KELLY, Q.C.:
Q. Perhaps the witness first could indicate how much effort is involved in that so we can get some sense as to cost benefit of doing it?
JOHNSON, Q.C.:
Q. Mr. Coyne just indicated that Duff and Phelps provides the data and this is alternate version of the data.
MR. COYNE:
A. Yeah, I'm not sure if it's contained in the same reports, I can check, but I would caution that it's not the risk free rate if you're using the total return, you're only looking for the income return, but I could certainly see if it's available.
KELLY, Q.C.:
Q. I'll take it as a conditional undertaking, Mr. Chairman because I think we need to understand how much effort is involved in that, versus the utility it might be, if any, to the Board.
MS. GLYNN:
Q. Noted on the record as such.

KELLY, Q.C.:
Q. Thank you.
JOHNSON, Q.C.:
Q. So just to conclude, though, the point that based on the normalized 4 percent yield that Duff and Phelps talks about, you're indicating that the U.S., instead of 5 to 5.5 percent, you're indicating the U.S. MRP is 8.1 percent on a forward-looking basis, on a 3.96 percent—or on a 4.—what did we say the risk –
MR. COYNE:
A. 4.29 percent.
JOHNSON, Q.C.:
Q. 4.29 percent, that's what you're indicating?
MR. COYNE:
A. Yeah, I'm taking the average of those, I'm using the 7.6 actually is what I'm using.
JOHNSON, Q.C.:
Q. Yes, but in terms of the box –
MR. COYNE:
A. And I'm using that on a lower—yes.
JOHNSON, Q.C.:
Q. - on Figure 13, let's just go there for a moment, you're saying that the forward-

looking U.S. market risk premium is 8.1 percent and that compares to the 5 to 5.5 percent that Phelps is reporting on the normalized 4 percent yield?
MR. COYNE:
A. Well I don't know that they're truly comparable, I only have that one excerpt you've given me, but yes, the 7.6 percent is what I'm using.
JOHNSON, Q.C.:
Q. Okay, but again –
MR. COYNE:
A. Duff and Phelps, this is a long report –
JOHNSON, Q.C.:
Q. But again now, Mr. Coyne, you refer to the 7.6 that you're using, but your forward looking is 8.1, is it not?
MR. COYNE:
A. That's correct.
JOHNSON, Q.C.:
Q. Right.
MR. COYNE:
A. If I might, Duff and Phelps in this report also says, if I might quote, "As stated earlier in those circumstances we would

prefer to use the spot yield on U.S. Government bonds available in the market as a proxy for the U.S. risk free rating. However, during times of flight to quality and high levels of central bank intervention, i.e. mail, those lower observed yields would apply a lower cost of capital, all other factors held the same, just the opposite of what one would except in times of relevant economic distress. So a normalization adjustment may be considered appropriate. By normalization, we mean estimating a rate that more than likely reflects the sustainable average return of long-term risk free rates. If spot yield to maturity were used at these times, without any other adjustments, one would arrive at an overall discount rate that is likely inappropriately low, vis-à-vis the risks currently facing investors" from that same report. So, this goes to the relationship between both the market equity risk premium, as well as the risk free rate.
JOHNSON, Q.C.:
Q. Just so I can understand now, Mr. Coyne,

this is Duff and Phelps sent this out to many, many people, I think Dr. Booth included and I just want to understand the reason why you're suggesting that this would not be more persuasive as to what the U.S. equity risk premium is going forward, than what you've presented at 8.1 percent. I just don't understand that.
MR. COYNE:
A. Well we do our analysis based on a forward look and historic look and I'm not—they're adding that to what they deemed to be some forward-looking sustainable bond yield and that gets them, I guess, to some—I'm not sure where it gets them, but the sources of data they would have used from these companies reliably tell us what history is, I think there are a lot of views on what the forward-looking view is of the marketplace and again, I would need to understand what the basis is for their analysis, what's behind it, before we would accept that as a forward-looking view that's credible.
JOHNSON, Q.C.:
Q. Let's put it this way, again I asked this

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earlier in connection with another thing, but do you have any independent, like, third party corroboration from Duff and Phelps or any other big institution that would say yes, that 8.1 percent forward-looking U.S. risk premium is on the mark?

MR. COYNE:

A. So we went through the AON reports earlier, I had a chance to look at these over the break and if you take a look, if we can bring this up, page 19 if we can suffer the indulgence of the Board to go back to that document one more time.

KELLY, Q.C.:

Q. Do you have the -

MR. COYNE:

A. Yes, I'm sorry, it's in response to Consumer Advocate 269 and that was page 19 that we were referring to earlier, actually page 17 and page 19. Can you go back one to 17? So to use this source, they're citing at page 17 a long-term Federal bond yield of 0.9 percent on that page on a 10-year average annual return basis. If you flip forward to page 19, they're citing at 8.3 percent

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Canadian equity return. The difference between those two is an implied market equity risk premium of 7.4 percent over that bond yield, so that's very close to the 7.6 percent that I have used in my analysis, but I trust the work that was done here, I think the regression analysis, again, tells us that market equity risk premium should be higher during a period when bond yields are very low, so the combination of that work tells me that that is a reasonable projection of the forward-looking market equity risk premium.

JOHNSON, Q.C.:

Q. Are you subtracting nominal from nominal or real from real here, I just want to understand here now.

MR. COYNE:

A. These are the average returns, so these are arithmetic returns, 8.3 in one hand and 0.9 on the other hand. The difference between the two would be their implied market equity risk premium.

JOHNSON, Q.C.:

Q. Is that on account of their expectation that

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interest rates would be going up?

MR. COYNE:

A. I'm sorry?

JOHNSON, Q.C.:

Q. Is that on account of an expectation that interest rates would be going up?

MR. COYNE:

A. I don't know; I didn't do their work. This is just their numbers. This report we spent so much time with, this is for pension return expectations, they're suggesting that the market equity risk premium there is 7.4 percent. I mean, the point is there's a lot of—I think maybe the point is that there's a lot of uncertainty in terms of what the forward-looking market equity risk premium is, but I think all reasonable parties would agree that it's higher on a going-forward basis when bond yields are at abnormal lows. We see that in Duff and Phelps, we see that implied here, we see that in a forward-looking market analysis that we've done. It's only a matter of how much higher it is. We've estimated the market, we've estimated using a regression analysis over a long

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period of time, so we cannot—none of us can say precisely what that forward-looking market equity risk premium is, but I think this is a reasonable way to get your hands around it.

JOHNSON, Q.C.:

Q. Okay, so earlier when we were talking about the estimated overall market return for the dividend paying firms in one of your exhibits, 13.46 percent, remember that?

MR. COYNE:

A. Yes.

JOHNSON, Q.C.:

Q. Now I understand that, I think we've established that that's--the assumption of the DCF model is that's going to be the growth rate that goes on to infinity?

MR. COYNE:

A. In the constant growth version of the model, yes.

JOHNSON, Q.C.:

Q. In the constant growth version, okay. And Dr. Booth would say that that is in fact one of the assumptions of the model and he would also say that that's why this model would only be used for the overall market or very low risk firms. Would that be your understanding as well?

MR. COYNE:

A. That's how I'd prefer to use it, for very low risk firms, such as utilities. That's why I prefer to apply the DCF directly to utility proxy groups, I think that's when it has its greatest value. Dr. Booth, I believe is in agreement, along with Dr. Cleary because that language is in effect in their textbook that they authored together and it has its most value for low risk firms, such as utilities.

JOHNSON, Q.C.:

Q. Would you feel it is an appropriate tool, the constant growth model for valuing all common equities? I take it you wouldn't?

MR. COYNE:

A. Well, it is used for those purposes. I have greater comfort with it when it comes to applying it directly to the utility. I use it for perspective of the forward-looking market risk premium. I have much more confidence when I apply it directly to the

utility proxy group and those growth rate estimates.

JOHNSON, Q.C.:

Q. I noticed in JMC-5, your exhibit, that there were firms there that had, like astronomical growth levels reported for them. You probably noticed them, like Cameco at 40.9 percent; Osisko at 50 percent; Pason Systems at 52.31 percent; Hudson Bay Minerals at 43 percent.

MR. COYNE:

A. That's what we see in the broad market, yes.

JOHNSON, Q.C.:

Q. And on JMC-6, which talked about your U.S. firms, Caterpillar at 21 percent; Under Armour at 22.75 percent; Royal Cribbing, I think, at 20.54 percent; Cabot Oil at 42.75 percent, just again subject to check, so what's the length of time of these estimates? I mean, how long are they –

MR. COYNE:

A. As I indicated, those are five-year growth rate estimates.

JOHNSON, Q.C.:

Q. Now I think that you would agree that if we

go to JMC-4, page 3 of 3, you see the long-run GDP growth for Canadian utilities and Emera Incorporated, under the column 9?

MR. COYNE:

A. Yes, I see that.

JOHNSON, Q.C.:

Q. So that's basically, that would be assuming forecast GDP growth into perpetuity?

MR. COYNE:

A. That is correct, yes.

JOHNSON, Q.C.:

Q. And I understand that your analysis of the Canadian TSX would have dividends and earnings growing at basically 10 percent forever under the constant growth assumption, would that be right?

MR. COYNE:

A. Dividends and earnings?

JOHNSON, Q.C.:

Q. Yes. Would that be right?

MR. COYNE:

A. That's right.

JOHNSON, Q.C.:

Q. So what would happen over time if these firms do in fact grow at an average rate of

10 over time and GDP grows at only 3.94 percent, what would be the result of that?]

MR. COYNE:

A. And GDP grows at what rate?

JOHNSON, Q.C.:

Q. 3.94 percent.

MR. COYNE:

A. Well they're growing faster than the economy in that case.

JOHNSON, Q.C.:

Q. Right.

MR. COYNE:

A. This is not the entirety of the economy, these are the largest corporations in the economy, the TSX or the S & P 500. This is not the entirety of our economy. These are the large publicly traded companies. GDP is much larger than that.

JOHNSON, Q.C.:

Q. But as I understand it, if we make the assumption that these firms are going to grow at multiples of GDP growth rate expectations, that profits and the dividends will increase as a share of GDP and ranges get smaller and smaller and everything ends up in corporate profits, that's where that model would take you if you make an assumption of outsize growth over GDP, would that be fair?

MR. COYNE:

A. Well there's a lot in your question there. I would stipulate that these companies are projected to grow faster than the overall economy by these analysts over that period of time.

JOHNSON, Q.C.:

Q. But like DCF relies upon, the DCF methodology for constant growth, does it not rely on long-term growth assumptions?

MR. COYNE:

A. It does, yes.

JOHNSON, Q.C.:

Q. Did you adjust any of these estimates for what's known broadly as analyst optimism or bias?

MR. COYNE:

A. No, I did not.

JOHNSON, Q.C.:

Q. And I understand as well that you didn't use multi-stage DCF in presenting the DCF

analysis to the Board?

MR. COYNE:

A. No, I applied my multi-stage model when I estimated the return on equity for the utilities directly.

(12:15 p.m.)

JOHNSON, Q.C.:

Q. Okay, but not for the purposes of estimating the risk premium?

MR. COYNE:

A. No, no.

JOHNSON, Q.C.:

Q. Right, and now we asked you to in CA-NP-100, if we could turn to that – we asked, "In terms of your forward looking DCF estimates for the market, please confirm these estimates are based on analysts' forecast, provide the source of the analysts' forecast, and explain why you have not used the multi-stage DCF model", and as I understood your answer at line 15 to 16, you said, "A multi-stage analysis would require introducing assumptions concerning second and third stage growth rates and was beyond the scope of this analysis".

MR. COYNE:

A. Yes.

JOHNSON, Q.C.:

Q. And I understand that out in British Columbia where you testified very recently, within the last several weeks, that you were, in fact, asked to provide a multi-stage DCF analysis for these purposes, is that correct?

MR. COYNE:

A. I was.

JOHNSON, Q.C.:

Q. And you did provide that to the BC Board after that undertaking?

MR. COYNE:

A. I did.

JOHNSON, Q.C.:

Q. And could you indicate to us what happens to the risk premium when you apply the multi-stage model?

MR. COYNE:

A. Well, you would get – obviously, get a lower result. You're now introducing a lower GDP growth rate into the equation as opposed to just strictly relying on the analysts'

growth rate, so they're much lower. They're lower than the historic market equity risk premiums, in fact.

JOHNSON, Q.C.:

Q. So you actually put this in your rebuttal evidence, right?

MR. COYNE:

A. Yes, we did.

JOHNSON, Q.C.:

Q. And that's at page 29 of your rebuttal? Have I got the right section of where you're saying this?

MR. COYNE:

A. Yes.

JOHNSON, Q.C.:

Q. So you're indicating – just to go down to the bottom of the previous page for a second, you start at line 23, "My analysis suggests that the current market risk premium is above my estimate of 7.6 percent, as indicated by my forward looking MRP of 9.8 percent for Canada, and 8.1 percent for the United States. In a further test of these results in British Columbia using a more conservative multi-stage DCF approach to derive the forward market equity risk premium, forward looking market risk premium is lowered to 5.39 percent, and 3.96 percent for Canada and the United States respectively". So a drastic decrease in the market risk premium by putting in what you're terming "a more conservative multi-stage DCF model"?

MR. COYNE:

A. Yes. I don't think that's a reliable indicator of the forward looking view of the market equity risk premium. Those would be lower than the historic ones with a range of bond yield that look very different from the ones that we have today. So I ran it on undertaking as a request, knowing full well it would come up here again, given Dr. Booth's interest in this matter, but it is lower and just does not give you reliable forward looking view of the market equity risk premium.

JOHNSON, Q.C.:

Q. And why?

MR. COYNE:

A. Well, because – well, first of all, it

doesn't pass the logic test. It's giving us market equity risk premium that are lower than history, even though we have much lower bond yields. Everything we just discussed suggest that that's just not the case. We don't see any evidence of that in the marketplace. Secondly, if you want to use the tool of the multi-stage – what you're trying to do here is to take a model that's on crutches in the CAPM, that's disabled by the fact that you have a risk free rate that we have to try to find an equilibrium on because of abnormal bond yields, and we argue about beta, we argue about market equity risk premium in this current market environment. If you want to go to the trouble of using the DCF to estimate the market equity using the forward looking market equity risk premium, using a multi-stage model, why don't you apply it directly to the utility group which is the purpose of this exercise to begin with, as opposed to going through that tortured exercise, I would argue. That's just going above and beyond what's necessary to estimate the cost

of capital for the utility. If you apply the multi-stage model as I did for the utility, you can do that directly, you don't have to go through that multi-stage logic to get around to a number you can estimate directly using the multi-stage model, using growth rates for the utilities that are comparable to Newfoundland Power, and using the multi-stage model using the GDP growth rate for the back end. So you can do it directly. There's no reason to do so so indirectly.

JOHNSON, Q.C.:

Q. You then go on to talk about how – you go on, as you've confirmed here, "That this yields an anomalous result when indications are the market risk premium is higher than historical average and not lower", and then you refer to your regression test of the market risk premium, suggesting that the market risk premium is much higher, is that right?

MR. COYNE:

A. That's right, yeah.

JOHNSON, Q.C.:

Q. And where is your regression test? Is that Exhibit JMC-7?

MR. COYNE:

A. I believe it is, yes.

JOHNSON, Q.C.:

Q. All right, let's go there for a moment then. If we could try to get that – so this is your regression analysis of market risk premium, the Government of Canada long term bond yields from '76 to 2014?

MR. COYNE:

A. That's right.

JOHNSON, Q.C.:

Q. Okay.

MR. COYNE:

A. And you can see looking at the bond yields on the left hand side, they cover a broad range over that period of time. For the recession period of 2008, I use a dummy variable in the regression analysis, knowing that that caused great dislocation in financial markets, to estimate what the market risk premium would be in relationship to the long Canada bond yield if you measured it over time in that manner.

JOHNSON, Q.C.:
Q. And so this is to provide some support for the appropriateness of the forward expected return on the overall market of 13.46 percent, is it?
MR. COYNE:
A. It's to do two things. It's to look at – it's to test it in terms of whether or not there's a relationship between the market equity risk premium and the long term bond yield.
JOHNSON, Q.C.:
Q. Right, okay.
MR. COYNE:
A. There's a lot of literature out there that suggests that there is, and this is to measure it, and then to measure the magnitude of what that change would be between historic equity risk premium and bond yields we're looking at today.
JOHNSON, Q.C.:
Q. Okay, so –
MR. COYNE:
A. So what I did is I estimated that regression, and I plugged in the forward

looking risk free rate that we used in our analysis to see what market equity risk premium would be predicted by that.
JOHNSON, Q.C.:
Q. So this market risk – this regression analysis, you're presenting this as opposed to presenting other available estimates from capital market participants, such as AON Hewitt, Mercer, TD, etc, that this is what really should justify your position?
MR. COYNE:
A. This is our analysis, yes.
JOHNSON, Q.C.:
Q. Okay, okay.
MR. COYNE:
A. And I use this to test whether or not the forward looking market equity risk premium that I'm looking at are reasonable in light of these bond yields.
JOHNSON, Q.C.:
Q. Okay.
MR. COYNE:
A. So I'm using this as a test of those numbers.
JOHNSON, Q.C.:

Q. Just let's – I think we're going to need to see the right part of the screen for a second, and can you point us out your coefficient estimate on long Canada yields?
MR. COYNE:
A. That's –1.11.
JOHNSON, Q.C.:
Q. Right, so it's to the left hand side right where we see the words, "Canada long bond", and it's –1.11, okay. It's highlighted right there now. So would this mean in a nutshell, Mr. Coyne, that if Government bond yields went up 1 percent, say, from 4 percent to 5 percent, okay, that the market risk premium would go down 1.11 percent, at least according to this model?
MR. COYNE:
A. I believe it would.
JOHNSON, Q.C.:
Q. Okay, and I thought you were claiming that long Canada yields were having a strong negative influence on market risk premiums, so would you not consider a –1.11 percent to be a fairly small number?
MR. COYNE:

A. Well, that's not expressed logarithmically, it would go down by 1.11 for every – well, I guess, because they're both expressed in percent terms, perhaps.
JOHNSON, Q.C.:
Q. Right.
MR. COYNE:
A. It's measuring an inverse relationship between the two, so as the bond yield goes up, the market equity risk premium goes down and vice versa.
JOHNSON, Q.C.:
Q. Okay, and would you agree that that would appear to hold very little predictive power?
MR. COYNE:
A. Well, the regression statistics in total tell me that not everything that's going on with the market equity risk premium is captured by this regression analysis, nor was it my intent to do so.
JOHNSON, Q.C.:
Q. What do you mean by that?
MR. COYNE:
A. Well, if you look at the "R" square of 44, it tells us that 44 percent of the variation

is -
JOHNSON, Q.C.:
Q. Just point that out on the screen for us, whereabouts is it?
MR. COYNE:
A. Yeah, the multiple--the R-squared of .19, sorry.
JOHNSON, Q.C.:
Q. Okay.
MR. COYNE:
A. So it tells us that we can account for 20 percent of the variation in market equity risk premium this way by looking at the relationship between the Canada bond yields, but it tells us that there's 80 percent going on out there that we can't account for in this simple regression. So we're trying to estimate a relationship that's a very complex one using a very simple regression analysis.
JOHNSON, Q.C.:
Q. I understand, Mr. Coyne that the usual cut off value for "T" statistic on a regression coefficient that would denote it being statistically significant is around 2, is

that right?
MR. COYNE:
A. At the 95 percent confidence, yes
JOHNSON, Q.C.:
Q. And I'm told that it's 1.96, if you want to be really precise about it, is that right?
MR. COYNE:
A. That's right.
JOHNSON, Q.C.:
Q. Okay, so you're familiar, obviously, by the sounds of it, with this cut off "T" stat for statistical significance, and you would agree with that number that I've put to you?
MR. COYNE:
A. Yes.
JOHNSON, Q.C.:
Q. Okay.
MR. COYNE:
A. It's significant at a lower level of confidence than 95 percent. I think it's 80.
JOHNSON, Q.C.:
Q. So let us see then –
MR. COYNE:
A. Statistically measurable, but not at the 95

percent confidence interval.
JOHNSON, Q.C.:
Q. Do we observe from what you have here that the "T" stat for Canada yields is –1.49?
MR. COYNE:
A. Yes.
JOHNSON, Q.C.:
Q. Where is that to?
MR. COYNE:
A. What was your question?
JOHNSON, Q.C.:
Q. Where is that?
MR. COYNE:
A. It's on the same line that you looked at, the Canada bond yield line under "T" stat.
JOHNSON, Q.C.:
Q. Okay, there you go. So there you see it. It's –1.49?
MR. COYNE:
A. Right, the sine is consistent with the sine on the coefficient.
JOHNSON, Q.C.:
Q. Okay, and does this not suggest that the Canada bond yields are statistically insignificant as predictors or MRPs?

MR. COYNE:
A. No. I'd suggest that it's significant at the 80 percent confidence level, not at the 90 percent confidence level.
JOHNSON, Q.C.:
Q. Okay. Now this model, if we go over to the left hand side of this screen, we see – go up a little bit, Samantha, if you could so we can see – is that the very top? It is, is it? Okay, there you go. So we have Canada long bond that provide the rates for each of those years, and then we have in the column a dummy variable, and in the third, the market risk premium, right?
MR. COYNE:
A. Yes.
JOHNSON, Q.C.:
Q. Okay. Now let's scroll all the way down. We see dummy variables of 0000 all the way from '76 until we get to 2008, and then we have a 1 put in there for the dummy variable?
MR. COYNE:
A. Yes, I see that.
JOHNSON, Q.C.:

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Q. So you inserted that dummy variable in there for 2008. Would this be to suggest that prior to 2008 market experts would have expected a crash in the stock returns that year, and an associated experienced MRP of a –35.5 percent?

MR. COYNE:

A. They would have – is your question they would have anticipated it?

JOHNSON, Q.C.:

Q. Yes, isn't that what's implied by the dummy variable of 1 being put in this table?

MR. COYNE:

A. No.

JOHNSON, Q.C.:

Q. No?

MR. COYNE:

A. No.

JOHNSON, Q.C.:

Q. Okay.

MR. COYNE:

A. What the dummy variable is there for is to take – we know that 2008 was an anomalous year because of the recession and the dislocation in financial markets, so I want

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to remove that relationship from the longer term trend between the market equity risk premium and the bond yield. It's a way to try to isolate the effects. It's a commonly used technique in regression analysis.

JOHNSON, Q.C.:

Q. In 1980, we see there was a –23.8 percent drop. You have no dummy variable put in there for that. Why would that be?

MR. COYNE:

A. I'm sorry, in 1980?

JOHNSON, Q.C.:

Q. 1981.

MR. COYNE:

A. I didn't put a dummy variable in for every year that there was a negative market risk premium. I was trying to capture the effect of the largest event in recent history.

JOHNSON, Q.C.:

Q. I see. What would -

MR. COYNE:

A. I think Mr. Booth has queried me on this issue through counsel, I believe, out of BCUC, and if my recollection serves me well, if we add a dummy for that period of time,

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the results are higher in terms of the predicted market equity risk premium. I don't recall if it was for that specific year or not, but my suspicion is it was.

JOHNSON, Q.C.:

Q. Mr. Coyne, how do you justify including this information in your model that you're using for predictive purposes if the information, as I understand it, is required to set this dummy equal to 1 is not known in advance?

MR. COYNE:

A. Two things. When you're trying to explain history, that's the common approach to use when you want to isolate the effect of a specific event in this type of regression analysis. It's a commonly use econometric technique. Econometricians use it all the time. We've used it in multiple ways, in multiple analyses for demand forecasting we do for utilities in a number of ways. It's a commonly employed technique, and it's always done – when you do this type of analysis, you don't have a forward look to be able to run the regression analysis. It's always done with history, so what

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you're trying to do is to isolate – you're trying to look at a primary relationship and isolate the effect of something you think is not representative of entire history. I don't think anybody would argue that the year 2008 was representative of this entire history. It can blow up your results if you have one anomalous year or two anomalous years.

JOHNSON, Q.C.:

Q. I understand in regression analysis that an R-squared of 0 percent would mean that there's absolutely no explanatory power provided from the regression model. We would agree on that?

MR. COYNE:

A. That would be right.

JOHNSON, Q.C.:

Q. And I also understand that if the R-squared was 100 percent, that would be complete explanatory power?

MR. COYNE:

A. Yes, it would.

JOHNSON, Q.C.:

Q. Okay, and this model is using R-squared of

19 percent?

MR. COYNE:

A. That's what it calculates, yes.

JOHNSON, Q.C.:

Q. Okay.

MR. COYNE:

A. And when you say "this model", this is what I've used to test this relationship over time.

JOHNSON, Q.C.:

Q. Yes, I understand, and so if we could look at – could we look at what would happen if we were to exclude this crisis dummy of 1 from this regression analysis, and for that purpose, if you could look at the cross-aid that we passed over having to do with this regression analysis.

(12:30 p.m.)

MS. GLYNN:

Q. That will be entered as Information #25.

JOHNSON, Q.C.:

Q. Mr. Coyne, you've seen this cross-aid?

MR. COYNE:

A. I didn't know what it was, but I have seen it, yes.

JOHNSON, Q.C.:

Q. Okay, and essentially if we remove the dummy variable, would you take, subject to check, that your adjusted R-squared is -.0034?

MR. COYNE:

A. Well, I would check that.

JOHNSON, Q.C.:

Q. You'd take it subject to check?

MR. COYNE:

A. I will.

JOHNSON, Q.C.:

Q. And –

MR. COYNE:

A. But the thing is the dummy variable is there for a reason, as we described.

JOHNSON, Q.C.:

Q. I understand, I understand, but if we were to remove the dummy variable, and I understand you say it's there for a reason, but if we were to remove the dummy variable, this would have absolutely no predictive ability essentially?

MR. COYNE:

A. Well, you're –

JOHNSON, Q.C.:

Q. Would that be right?

MR. COYNE:

A. That's a very – the R-squared at 0.2, yes, is indicating a very low R-squared, but, you know, it's there for a reason.

JOHNSON, Q.C.:

Q. It would be .003, right?

MR. COYNE:

A. Well, I will - the number that you have there is .02, and an adjusted R-squared of .003.

JOHNSON, Q.C.:

Q. Right.

MR. COYNE:

A. And I will check it.

JOHNSON, Q.C.:

Q. Okay. Finally before we turn further, Mr. Coyne, could you refer back to this regression analysis exhibit that you did.

MR. COYNE:

A. Yes.

JOHNSON, Q.C.:

Q. And if we bring it over a little bit further, you see the dummy variable that you have there towards the top of this – the mid

part of the screen, -45.184734 right there?

MR. COYNE:

A. Right.

JOHNSON, Q.C.:

Q. What's that telling us in relation to what happened in 2008?

MR. COYNE:

A. It tells us that during the great recession that we had, it had a considerable impact on the relationship between the market equity risk premium and the long term Canada bond yields.

JOHNSON, Q.C.:

Q. Did the market equity risk premium go up or down?

MR. COYNE:

A. Well, ironically it's showing there that it went down. Indeed anomalous. It's nothing we would expect.

JOHNSON, Q.C.:

Q. Does that make any sense to you?

MR. COYNE:

A. That the market equity risk premium would go down, no, we know that it would go up during a period like that, and that's one of the

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reasons why I carved it out. It's one of the reasons why you take it out of the analysis, it doesn't make sense, but this is what happened, this is the measurement, and we called it – the reason for that is we had a crash in stock market prices and we didn't in bond yields, and that's why you take it out of the analysis. It's a non-sensible result.

JOHNSON, Q.C.:

Q. But that's the result that gives you the R-squared in your regression model, right?

MR. COYNE:

A. By taking it out.

JOHNSON, Q.C.:

Q. Now can we turn to your beta estimates on page 28. So you're recording these beta estimates in Figure 12, and all well above where Dr. Booth would certainly have them; U.S. electric utility group at .76, North American electric utility group at .76 according to Value Line, and Bloomberg would have those two respectively at .70 and .69, and the Canadian group at .64. Now if we could just turn to Dr. Booth's surrebuttal

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evidence at page – before we go there, I'm sorry. Just to confirm, these would have been considered adjusted betas, is that right?

MR. COYNE:

A. These are called adjusted betas, yes, from those sources.

JOHNSON, Q.C.:

Q. And you've used these adjusted betas previously before Canadian boards, right?

MR. COYNE:

A. Yes.

JOHNSON, Q.C.:

Q. In the fashion that you're adjusting them here now?

MR. COYNE:

A. These are the standard adjustments to betas that are used for such purposes.

JOHNSON, Q.C.:

Q. That you say they're standard, right?

MR. COYNE:

A. They are, yes.

JOHNSON, Q.C.:

Q. Okay, just turn to page 12 of Dr. Booth's surrebuttal. At line 17, Mr. Booth is

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recounting what the AUC said about these adjusted betas, and I'll just read it for the record from the 2009 proceeding, "The Commission is persuaded by the empirical analysis of Dr. Kryzanowski and Roberts that there's insufficient evidence to support the use of adjusted betas for Canadian utilities if the purpose of the adjustment is to adjust betas towards 1, and, therefore, beta should not be adjusted towards 1. Therefore, the Commission rejects Mr. Coyne's beta results as unreasonably high because he adjusted his beta estimates on the assumption that they would revert to 1. In other words, his analysis assumes that in time utilities would be as risky as the market as a whole". So they rejected your betas. Are you doing the same thing here as you did in Alberta?

MR. COYNE:

A. The betas that I'm using here are adjusted by Bloomberg and Value Line in the same way as used there. I am not adjusting them so that they're going to revert to 1. This adjustment methodology, which is the

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Bloomberg adjustment methodology is the standard way of adjusting raw betas, and it weights them 2/3rd according to the raw estimated beta, and 1/3rd according to the market beta, which is 1. So it moves them towards 1. You never get towards 1. That's why you get the betas that I have -

JOHNSON, Q.C.:

Q. Mr. Coyne -

MR. COYNE:

A. Excuse me, .76, .70, .76, and .69. Those are not 1. That's 2/3rd the raw, and 1/3rd the market equity risk premium. That's the standard approach.

JOHNSON, Q.C.:

Q. Just so that we don't lose people completely, is what you're doing here the same as what you did in Alberta that got rejected?

MR. COYNE:

A. What I'm doing here is relying on the same sources for updated betas, and they treat them in the same way, yes. What the Commission perhaps did not understand is I'm not assuming that they're going to revert to

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1. These are not 1's that I'm using, and I'm not sure in 2009 that the AUC had fully come to grips with that concept based on the cite that you read. I think up until that period of time in Canada, the CAPM model as I had seen it, was largely deployed using judgmental estimates of beta, but there's no reason to do so. That was done using Canadian samples because you didn't have enough publicly traded companies to derive those betas for. When you go to broad markets like the U.S., you can derive market estimated betas this way from broad samples of utilities and you can estimate the CAPM that way, as opposed to using judgment to say where I think beta is. We can estimate it this way statistically using a very standard adjustment methodology. So these are the betas that an investor would pull to look at their analysis. When we do analysis for companies, and we do analysis in cost of capital, these are the only ones that we use and these are the only ones that are used broadly in the industry for these purposes.

JOHNSON, Q.C.:

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Q. So you're suggesting that the AUC, an expert tribunal, misinterpreted what you were putting before them, is that -

MR. COYNE:

A. I'm not sure that they understood the entire context at that point in time because at that point in time moving to U.S. samples for this type of data was a new concept for them. They were trying to come to grips with that, and I think it's been the course of the last decade more Canadian regulators understand this data, and they understand where it's coming from.

JOHNSON, Q.C.:

Q. You had been just giving cost of capital evidence for two years at that point, right?

MR. COYNE:

A. Yes.

JOHNSON, Q.C.:

Q. Now could we turn to what you did before the BCUC recently, CA-NP-152, and if you could turn up page 44 of your report.

MR. COYNE:

A. I think I will need that attachment. Well, let's see what we have here. Did you say

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152?

JOHNSON, Q.C.:

Q. CA-NP-152.

MR. COYNE:

A. Okay. That would be helpful, thank you.

(12:45 p.m.)

JOHNSON, Q.C.:

Q. It should be actually page 49 of 247.

MR. COYNE:

A. Yes, I see that.

JOHNSON, Q.C.:

Q. Now you're indicating here in your discussion of beta starting from line 1, you're saying, "I recognize that the BCUC expressed some reservation regarding the reversion of beta to the market mean in its 2013 generic cost of capital decision, and adopted what it characterized as intermediate beta. I, therefore, provided an alternative specification of beta that reverts to the midpoint of the market mean and a utility industry indexed".

MR. COYNE:

A. What page are you on? I see a different page on the screen than I'm looking at in

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the text here.

JOHNSON, Q.C.:

Q. I think it's page 44 of your report, but it's page 49 of 247 of this attachment.

MR. COYNE:

A. I see. Yes, okay, I now see it.

JOHNSON, Q.C.:

Q. Okay, and so then you go on to say, "Based on the strength of academic literature practiced before regulatory commissions on such matters, and broader practice among financial analysts, I relied on market adjusted betas for my primary analysis. I present the alternative CAPM as a point of reference in the event the Commission determines that an alternative specification warrants any weight". So when you're setting out your betas adjusted to market mean, which would be your primary analysis, that's the one you normally use all the time -

MR. COYNE:

A. Yes.

JOHNSON, Q.C.:

Q. Okay, where you're reporting the Canadian group at .65, and your U.S. group at .78, and these appear to be lower than what you're putting forward in this matter. We have a Canadian group at .64, I understand in this proceeding, but in any event -

MR. COYNE:
A. Well, they're different proxy groups. We measure the betas for the specific companies that we're analyzing.

JOHNSON, Q.C.:
Q. And then you go on to say – you present an adjusted to average of industry average and market mean. That's the alternative analysis which drops the beta, right?

MR. COYNE:
A. Yes.

JOHNSON, Q.C.:
Q. Okay, and this was evidence that you prepared two weeks before filing evidence for Newfoundland Power?

MR. COYNE:
A. That's about right, yeah.

JOHNSON, Q.C.:
Q. I guess the first question would be why in that case did you report betas adjusted to

the market being adjusted to 1, and also betas adjusted to the industry mean, whereas in this evidence you have dropped the adjustment to the industry mean values?

MR. COYNE:
A. Well, I was reporting – I didn't utilize it in my estimates, but the Commission in its prior decision had expressed a specific concern on this issue, so I thought I would provide it some context around the issue in case that concern continued.

JOHNSON, Q.C.:
Q. Okay, so you thought that the BCUC would not accept betas adjusted to the market?

MR. COYNE:
A. No, they had expressed – they had indicated that they wanted to see more evidence on this issue, so I wanted to provide them with some additional context.

JOHNSON, Q.C.:
Q. Have you checked previous decisions of this Board to see whether they have ever accepted betas adjusted to the market?

MR. COYNE:
A. I've looked at prior decisions. I don't

recall whether or not they had expressed it in the same way that the BC Commission had, so I don't know the answer to your question.

JOHNSON, Q.C.:
Q. I guess, the Board is interested in your expert opinion, so are you tailoring your views – is it a tailoring exercise that you're going through?

MR. COYNE:
A. There is a – I'm concerned with the magnitude of this testimony whenever I present it, and, yes, depending upon the Commission I'm before, if I think there's a specific issue that asked to see, then I will try to provide them evidence that is responsive to whatever those prior decisions have been. I view it as our job to give them the information they need to make an informed decision, but I'm also looking at specific concerns that may have been addressed in a prior decision.

JOHNSON, Q.C.:
Q. You've decided not to put forward this information before the Board in this proceeding obviously?

MR. COYNE:
A. Yes, this is a shorter piece of testimony than I provided in BC. The BC testimony also serves as a benchmark piece of testimony, so it's highly contested and the record there tends to build.

JOHNSON, Q.C.:
Q. Okay, so –

MR. COYNE:
A. So I was trying to – knowing this was going to come up as an issue, I was trying to be responsive to the Commission to give it to them in advance.

JOHNSON, Q.C.:
Q. So we certainly do see that there's a significant difference in beta when you start adjusting to the average of the industry?

MR. COYNE:
A. Yes, I did not do so, but I show those results, yes.

JOHNSON, Q.C.:
Q. And can you confirm that it will be a similar difference for your Canadian sample and similarly for your U.S. sample in this

case if you did such an adjustment?

MR. COYNE:

A. I expect it would.

JOHNSON, Q.C.:

Q. And about .08 in each instance of a reduction?

MR. COYNE:

A. Yes, because if you adjust – I think they're close enough to start with. Let me just look at that. Well, directionally so. I'd have to do the analysis to see what the exact adjustment would be.

JOHNSON, Q.C.:

Q. Would you accept .08 as being fairly close to it?

MR. COYNE:

A. Yes, I would accept that.

JOHNSON, Q.C.:

Q. And we've noted earlier in your HQTD and TransEnergie testimony that for a sample of primarily T & D U.S. utilities, you used a beta of .59. Do you recall that evidence from yesterday?

MR. COYNE:

A. I recall we had that evidence. I don't

recall what the beta was.

JOHNSON, Q.C.:

Q. Would you accept that it's .59, subject to check?

MR. COYNE:

A. Yes, I will accept that, subject to check. Well, did I use that beta, is that what you're saying? You want me to check the beta that I used in Hydro Quebec? I can do so.

JOHNSON, Q.C.:

Q. Okay, and that would be at CA-NP-154 when you go to check that.

MR. COYNE:

A. I recall that in Hydro Quebec, I reconciled the results from that CAPM model to the DCF models in order to get to the return recommendations, but I will check the beta.

JOHNSON, Q.C.:

Q. Why don't we just bring it up, CA-NP-154, and I think it's page 13. Just come down a little bit, please, Samantha.

MR. COYNE:

A. What was the number again, CA -

JOHNSON, Q.C.:

Q. NP-154.

MR. COYNE:

A. 154. Right.

JOHNSON, Q.C.:

Q. So you used it, right?

MR. COYNE:

A. Yes. So what I did there is the Regie had also expressed a concern around this issue, and a desire to look at betas reverting to the grand mean of the utility versus the market, and that's what that .59 represented there, and then what I did is illustrated the kind of adjustment that would be required if you used those assumptions for the CAPM, and that is the .75 percent adjustment for other models that the Regie had relied on in the past in order to reconcile results from these models and what a reasonable return was, and in this case that .75 percent adjustment is what's required to get that CAPM to within the range of the other model estimates.

JOHNSON, Q.C.:

Q. Okay.

MR. COYNE:

A. So you have to look at those things together, not in isolation.

JOHNSON, Q.C.:

Q. So the .59 beta used in Quebec, you're comfortable with that approach?

MR. COYNE:

A. I was taking guidance from the Regie. No, my comfort is with the standard betas.

JOHNSON, Q.C.:

Q. Anything that would lead us to believe - your HQ testimony was in 2013. Anything to lead us to believe that the betas has increased for utilities from 2013 to when you filed your evidence in 2015?

MR. COYNE:

A. Has decreased?

JOHNSON, Q.C.:

Q. Has increased in the interim between your HQ filing and this filing?

MR. COYNE:

A. I don't know if they have increased over that period of time or not. I could check that.

JOHNSON, Q.C.:

Q. I'm not asking you to. I was just wondering if you thought that they had.

MR. COYNE:

A. There's something else that I would point to here, if I might, because I think it would be informative for the Board. I refer to CA-NP-094.

JOHNSON, Q.C.:

Q. Uh-hm.

MR. COYNE:

A. I wanted to test this issue here as I did in BC as to whether or not betas really do need to be adjusted, and whether or not even adjusted betas could predict the returns for Canadian utilities, and at the bottom of – there should be a graph in that CA-NP-094. Yes, okay, there's the chart. So what this shows is that if you go back over the period of time from 2005 through 2014, and you look at the actual return, the actual returns for Canadian utilities versus those that would have been predicted by the bond yield at the time, the market equity – the historic market equity risk premium, and either raw or adjusted betas, the lines you see below show that neither one of them could get to

the actual returns that were earned by these utilities during that period of time. So that says that not only are these adjusted betas conservative to get what these companies actually earned during that period of time, that they're too low.

JOHNSON, Q.C.:

Q. The actual return methodology, I understand, has been rejected by the AUC as an approach to the beta?

MR. COYNE:

A. As an approach to the beta?

JOHNSON, Q.C.:

Q. As an approach to estimating the risk premium?

MR. COYNE:

A. The Alberta – well, there have been many decisions before the Alberta decision. If it's comparable earnings, yes, they rejected that approach. I'm not estimating a comparable earnings model.

JOHNSON, Q.C.:

Q. No, I don't believe this has anything to do with comparable earnings, sir. This has to do with using actual returns to determine

risk premium. Are you aware of that – I'm advised that that's been rejected.

MR. COYNE:

A. I would have to see the – I'm not aware of whatever rejection you may be referring to, but this is – this should be fairly straightforward. What I'm trying to show here is that if you look at the betas for these companies, you would have taken adjusted betas and/or raw betas, and tried to predict the actual returns for utilities or this decade, both of them would have been too low in terms of predicting the actual return for the TSX utilities companies. So it reinforces to me what we know from the empirical literature, and that is that betas for low risk companies, such as utilities, underestimate those returns.

JOHNSON, Q.C.:

Q. Okay.

MR. COYNE:

A. And that's why this is the standard methodology. That's why everyone that would be coming out of a Finance Class 101 in a basic university would be using these betas

to inform their models, certainly if they were coming out of a U.S. college. It's the standard that's used in the industry when you start to do this type of financial analysis and it's the standard that's used – it's the standard to estimate the cost of capital when you are using a CAPM model and before every regulators in the U.S., these are the betas that are presented, and I'm not aware of any regulator in the U.S. that's rejected that. This is only a Canadian discussion that in my experience when it comes to whether or not these adjustments to betas are indeed necessary or not. That's the only place that I've experienced it.

JOHNSON, Q.C.:

Q. Well, it's pretty significant, though, don't you think, that it's a Canadian discussion, and excuse me, we're in Canada at a regulatory proceeding.

MR. COYNE:

A. I understand – I've done a lot of work on this issue trying to give regulators and stakeholders some comfort and this type of

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analysis, I hope, serves that purpose, but if you use raw betas or if you use judgmental betas, I don't think you have much to really hang your hat on because you can't repeat that analysis from time to time. We're pulling these from Bloomberg or from Value Line or from Merrill Lynch, who always do it the way, and that way you have reliable numbers, and as the markets move, you can take market based information to form your analysis, as opposed to guessing what beta is from any one given period of time. It's well known that betas change as market circumstances change, and this allows you to estimate how the markets are impacting required returns for all companies, let alone utilities.

JOHNSON, Q.C.:

Q. If we could turn up JMC-8, page 1, for a moment. That's where you have your betas. Now we see that you report Bloomberg and Value Line betas for each of the proxy group firms, but not what you would term "raw betas", is that right?

MR. COYNE:

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A. Yes, these are the standard betas we pull from those sources.

JOHNSON, Q.C.:

Q. And the raw betas would be simply the unadjusted betas?

MR. COYNE:

A. Yes.

JOHNSON, Q.C.:

Q. Could we just pull up CA-NP-152, and at page 240 of 247. This is your JMC-5, Schedule 2, that you filed in the BC proceeding.

MR. COYNE:

A. I think I have it here. On which page?

JOHNSON, Q.C.:

Q. It's 240 of 247. This is what you would have filed in B.C. a couple of weeks prior to the Newfoundland Power's case.

MR. COYNE:

A. Yes, I see it.

JOHNSON, Q.C.:

Q. Okay. At this point, if we could keep that on the screen, for anybody who has a paper copy of Mr. Coyne's exhibit in the Newfoundland Power case which would be JMC 8 at page 1 of 1, it would be useful to be

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able to see what we have here versus the Newfoundland Power evidence because it's impossible to flick back and forth. So, the JMC 8 of the Newfoundland Power evidence would be helpful as a guide. Mr. Coyne, I see in B.C., what we have up on the screen here, that we've got a risk free rate of 3.68 percent right on down through for the U.S. proxy group and the Canadian proxy group.

MR. COYNE:

A. Right.

JOHNSON, Q.C.:

Q. That's the Canadian risk free rate?

MR. COYNE:

A. Yes.

JOHNSON, Q.C.:

Q. Okay. And do you have the –

MR. COYNE:

A. I'm sorry, yes, it is.

JOHNSON, Q.C.:

Q. Yes, and do you have your JMC 5, Schedule 2 up with you, or one second now, it would be JMC 8 of your Newfoundland Power evidence.

MR. COYNE:

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A. Yes, I see that.

JOHNSON, Q.C.:

Q. Do you notice anything different about risk free rate?

MR. COYNE:

A. Yeah, it seems like in that case, the Canadian one is being use with the U.S. group, whereas I typically use the U.S. with the U.S. and the Canadian with the Canadian one. That was in this alternative analysis, let me just check my primary analysis. No, I recorded them both on that same sheet, yeah.

JOHNSON, Q.C.:

Q. I wonder would we be—in Newfoundland Power's case, why would we be using an American risk free rate in the capital asset pricing model. We should be using the Canadian risk free rate.

MR. COYNE:

A. No, I typically apply the risk free rate that's appropriate for the country that I'm deriving the proxy group from and I don't understand why, frankly, it's 3.68 in the case of BCC. It should have been, I believe

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it should have been the same as used here and that is the 4.29. I think that was an oversight on my part.

JOHNSON, Q.C.:

Q. Did you prepare this, Mr. Coyne, in both B.C. and Newfoundland?

MR. COYNE:

A. Well, I have analysts that help me prepare these and I oversee them, yes.

JOHNSON, Q.C.:

Q. What were –

MR. COYNE:

A. My greater concern right now is why I didn't have the U.S. numbers in there for B.C. as I did here. That may have been an oversight.

JOHNSON, Q.C.:

Q. Just to confirm for the record that your evidence would be that it's appropriate to use an American interest rate here in Canada?

MR. COYNE:

A. The risk free rate that I use for the U.S. proxy sample is the U.S. risk free rate and I do the same for the Canadian sample.

JOHNSON, Q.C.:

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Q. But you're applying it to a firm in Canada.

MR. COYNE:

A. That's correct.

JOHNSON, Q.C.:

Q. And that's fine?

MR. COYNE:

A. As we talked about it, it's the risk free rate, remember we talked about the credit spreads being bigger in Canada than they are in the U.S. and this is in the capita model, right. That's the risk free portion of the rate. We're trying to get at the equity return.

JOHNSON, Q.C.:

Q. But how can we have two risk free rates in Canada?

MR. COYNE:

A. We don't have two risk free rates. We have a risk free rate for the U.S. proxy group and we have another one for the Canadian proxy group which match the market equity, risk premium that I've used that marks the betas that I've used for these companies.

JOHNSON, Q.C.:

Q. Did you just say –

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MR. COYNE:

A. So, I'm deriving U.S. data for the U.S. companies, U.S./Canadian Data for the Canadian companies. Where I mix them is in terms of the market equity risk premium which I am amalgamating to create one. So, that's the common entry across both of the CAPMs. But the risk free rates I typically hold separately.

JOHNSON, Q.C.:

Q. And are you familiar with or do you know of any Canadian regulator that has accepted the use of an American risk free rate in a CAPM analysis in Canada?

MR. COYNE:

A. I know that this is the way that we typically present risk free rates and this is for the CAPM model. When I use the DCF model, of course, you don't need to do this.

JOHNSON, Q.C.:

Q. Well, that's not what I asked you.

MR. COYNE:

A. Yes.

JOHNSON, Q.C.:

Q. Answer my question, please.

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MR. COYNE:

A. My experience in Canada is usually that the Board looks at evidence from a variety of different experts pertaining to the risk free rate and then they determine on the sum body of that evidence what that risk free rate should be.

JOHNSON, Q.C.:

Q. Is that a long and about way of saying that you're not aware of any Canadian board that has ever accepted this type of approach?

MR. COYNE:

A. I've presented it this way in every case. We use—we keep it separate.

JOHNSON, Q.C.:

Q. Well, you don't do it every case; you didn't present it like it in B.C..

MR. COYNE:

A. Well, a bit of an oversight in that particular case for that group.

JOHNSON, Q.C.:

Q. So, if an American board was considering evidence of a Canadian utilities return, let's say that they looked North, would you expect them to use a Canadian risk free rate in their analysis?

MR. COYNE:

A. It wouldn't be necessary because there they have the capital market information that they need to derive from a U.S. sample. So, I'm not aware of a U.S. regulator that requires or asks for U.S. samples in order to do so. You could rely on strictly the Canadian CAPM model that I presented to this Board for that purpose. I try to keep them separate so I have a Canadian risk free rate, Canadian betas and the appropriate market equity risk premium. So, I like to keep them separate and then I like to present the entirety of the results for the U.S. sample and the Canadian sample; in this case, the North American sample.

JOHNSON, Q.C.:

Q. So this makes sense to you?

MR. COYNE:

A. Yes.

JOHNSON, Q.C.:

Q. Okay. I've got nothing further for today if you want to get Mr. Burry underway.

CHAIRMAN:

Q. Okay, we'll just take a few minutes.

(1:15 P.M. - BREAK)

(1:20 P.M. - RESUME)

CHAIRMAN:

Q. Okay, Mr. Burry, there's no need to swear you in, sir, this is not a—in the nature of evidence. So, I guess we'll turn the proceedings over to you.

MR. BURRY:

Q. Good afternoon, my name is Terry Burry and I'm from Glovertown out in Central Newfoundland. First of all I'd like to apologize for the short notice that I gave the Board for this hearing. What sort of triggered my interest is when I saw Mr. Johnson on NTV last week doing a little piece, a blip on this hearing. And we were on our way to Florida and also in my light bill with Duke Energy there was some information about getting your home free evaluation done, a list of improvements and efficiencies and all that. So that kind of sparked my interest to come here today, those two items. First of all I should say that I think more should be done to

encourage people from outside of the Avalon to come to those hearings. I feel surrounded by townies and mainlanders here today. I know the Telegram, for example, is discontinued in our area; we don't even get it anymore. That happened recently. So, maybe the Board should consider, like maybe, contacting large municipalities like Clarenville, Gander and Grand Falls and some of those and give them a heads up that these hearings are going ahead and suggest that maybe half a dozen could have their way paid, say, a night at a hotel and meals because otherwise they're just not going to come here and spend their own dime and travel several hundreds of miles and so on, right. So, that's just a suggestion that maybe in the future it would be more of a balanced approach; you'd get more Newfoundlanders from across the Province participating in hearings like this.

As I say, we were on our way to Florida and I got this enclosure with our light and I was very interested and I think more should be done here in this province.

I know you go to a Kent's store one day or you go to Walmart the next day and Newfoundland Power with Newfoundland Hydro has a special on a certain LED bulb and you go and the next week and it's gone; every move—they've got it gone to a different—so, it's very spotty what's done here in terms of improvements that way. Because with the rates going up and up all the time and, of course, this 2.5 is only going to be like a mini stroke when we get to the Muskrat Falls later on. So, we have to be conscious of our consumption because the rates are going to go up anyway. That's inevitable, it seems to me, right. So, as I say, Duke Energy, they have $150.00 back on attic insulation; $200.00 back on upgrades to windows; heat pump, $800.00 back; efficiency in windows, I think, is $400.00 and so on. On March 24 I attended the Nalcor AGM and I asked three questions of Mr. Martin, the CEO and never got any straight answers, because we know this is around the corner, Muskrat Falls. I indicated that from my just simple math Muskrat Falls will cost ten times as

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much in nominal dollars to build as the Upper Churchill. If you do the math with 1/6 of the power produced at Muskrat Falls, you're talking about 60 times more higher costs than the Upper Churchill. Even if you convert that to 1970 dollars, it's still going to be over 550 percent more for that project. So, this 2.5, what we're dealing with today is only going to be very minor on the scale. And also, you know, I'm concerned about the Muskrat Falls 825 megawatts at Riverside, minus 20 percent to Nova Scotia, minus 450 megawatt offline to replace Holyrood, minus the line loss, I think it's about 10 percent on that 1200 kilometre transmission line into Soldier's Pond. So, I'm thinking that maybe Muskrat Falls is going to be less than 100 megawatts that's going to be available by the time you get the take home pay cheque out of it. And also a recent report came out that this winter 67 percent more expensive to heat your home with electricity than with furnace oil. So, now what does that say, if you go ahead five or ten years from now, in terms

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of—with the rate increases that's going to be given today or when this hearing concludes and with Muskrat Falls coming on stream?

The third item I wanted to talk about is the net metering. I understand that the Newfoundland government back in 2014, they did some kind of a study on net metering through a company in Toronto called Navigate, I think it was called. Now, I understand as well that Ontario, B.C., Nova Scotia, New Brunswick, other provinces allow for net metering and has been doing so for some time. Now, last year I think the then minister of Natural Resources announced a new net metering policy framework, but I'm not sure where that's to now; if that's stuck somewhere, unless they had it from reading the report (phonetic). The Board is supposed to be involved as well as the other players in terms of fleshing out this net metering policy to completion. And in Nova Scotia, I understand net metering services has been offered for many years, a recently expanded program to enhance net metering,

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wind turbine, solar panels, small hydro, mass bio-generators and so on. And, of course, requires, I understand, a bio-directional meter such that in July maybe you can send some power back to the grid. And maybe at the end of the year your light bill would be—the net light bill would probably be 10, 15, 20 percent lower than it would be without that bio-directional meter. So, basically my recommendation is, here today, is that any increases granted to Newfoundland Power be tied to a beefed up rebate program on home improvements for energy efficiency and an attractable subsidy to the home owner such that it would encourage the homeowner to go out and buy more LED lights, to probably consider to put a heat pump in, maybe to put extra insulation in the attic and that sort of thing. There has to be an incentive large enough for the home owner to get them on board and do those things. I understand there's been some spotty things done over the last few years, but not near enough. And the last one is the net metering.

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Before any more rates are, increases are granted in rates more needs to be done in terms of the net metering program because I think we're stuck with the rates going up, pretty much. So, the only way to get our light bill lower, I think, is through a lower consumption. Anyway, sorry, I never had more to present because I only found out about it a few days ago. If I had more time, I would have probably have more to say on those topics, but that's about all I got to say for today. If there's any questions, you can ask me questions.

CHAIRMAN:
Q. Does anybody in the Applicant or the Intervenor have any –
JOHNSON, Q.C.:
Q. No questions.
KELLY, Q.C.:
Q. No questions, thank you, Mr. Burry.
CHAIRMAN:
Q. Thank you, sir.
MR. BURRY:
Q. Thank you.
CHAIRMAN:

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Q. We're adjourned.

Upon conclusion at 1:30 p.m.

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CERTIFICATE

I, Judy Moss, do hereby certify that the foregoing is a true and correct transcript of a hearing in the matter of a General Rate Application by Newfoundland Power Inc. to establish customer electricity rates for 2016 and 2017 heard on the 5th day of April, 2016 at the Public Utilities Commission office, 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, NL this
5th day of April

Judy Moss
Discoveries Unlimited Inc.

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