(9:00 a.m.)

CHAIRMAN:

Q. Before we turn it over to Mr. Johnson again, I understand, Madame Solicitor.

MS. GLYNN:

Q. We have some housekeeping items.

CHAIRMAN:

Q. We have some housekeeping.

MS. GLYNN:

Q. Just a reminder that late yesterday afternoon, we had entered the binder relating to FPL Company as Consent No. 13. We also have a document from Mr. Johnson, which is a summary of Ms. McShane's recommendations, which we'll enter as Consent No. 14, and Newfoundland Power has provided the response to undertaking No. 2 from Ms. Perry for a group of the peer companies that she used for her comparison. Thank you, Mr. Chair.

CHAIRMAN:

Q. I think we're back to you, Mr. Johnson.

MS. KATHLEEN MCSHANE, RESUMES STAND, CROSS-EXAMINATION BY MR. THOMAS JOHNSON (CONT'D)

MR. JOHNSON:

Q. Yes. Good morning, Commissioners. Good morning, Ms. McShane.

MS. MCSHANE:

A. Good morning.

MR. JOHNSON:

Q. We're going to go to Florida now with FPL.

MS. MCSHANE:

A. I have that.

CHAIRMAN:

Q. Are you going through all of these?

MR. JOHNSON:

Q. Just--there's four more. I'm not going to spend a lot of time on each of them, Mr. Chairman.

CHAIRMAN:

Q. Yeah, just wondering.

MR. JOHNSON:

Q. Yeah. I would advise the Panel that given the fact that there was overlap between Ms. McShane and Mr. Cicchetti that there's only like a relatively small number for Mr. Cicchetti.

CHAIRMAN:

Q. Yeah.

MR. JOHNSON:

Q. That I don't have canvas.

CHAIRMAN:

Q. I was just wondering whether I'd have to reconsider my comments about the next 25 years, you know.

MR. JOHNSON:

Q. Okay. Ms. McShane, if we could turn to Tab 1, please?

MS. MCSHANE:

A. I have that.

MR. JOHNSON:

Q. Yes. This gives a brief description of FPL Group. It's a provider of electricity related services. The company has two principal operating subsidiaries, Florida Power and Light, which is FPL, and Nextera Energy Resources. FPL is a--the Florida Power and Light is a rate regulated utility engaged primarily in generation, transmission, distribution and sale of electric energy. Nextera Energy Resources is the company's competitive energy subsidiary which produces the majority of its electricity from clean, renewable fuels. FPL Group Capital Inc. is a wholly owned subsidiary of FPL Group, holds the capital stock of or has equity interest in FPL's group operating subsidiaries other than FPL and provides funding for these subsidiaries, including Nextera. As well, Fibrenet LLC, a wholly subsidiary of the company provides fibre optic services to FPL, telecom companies and other customers throughout Florida. Ms. McShane, if you could tell us if this is--FPL Group, would they be a big generator?

MS. MCSHANE:

A. They have a fair amount of generation, yes.

MR. JOHNSON:

Q. What would a fair amount be?

MS. MCSHANE:

A. I don't have the number of megawatts in my head, but they're a big generator.

MR. JOHNSON:

Q. And how about their non-regulated side, is that a significant aspect for FPL?

MS. MCSHANE:

A. Yes, it is.

MR. JOHNSON:

Q. And in terms of significance, what would be the proportion?

MS. MCSHANE:

A. I think in 2008, their generation provided maybe 45 percent of earnings.
MR. JOHNSON:
Q. Their non-regulated?
MS. MCSHANE:
A. Yes.
MR. JOHNSON:
Q. Okay, and if we could turn to Tab 2? This is a recent story, October 8th, 2009, where FPL announces an agreement with FERC and it's a story about Juneau Beach, Florida that Florida Power and Light, which is a subsidiary of FPL Group, of course, today announced it has agreed to a settlement with FERC and the North American Electric Reliability Corporation related to a--I think it's a February 26 '08 power outage.
MS. MCSHANE:
A. Yes.
MR. JOHNSON:
Q. I think that bears out in the second paragraph that FPL had to pay out 10 million dollars to each of the United States Treasury and the NERC and had to undertake to invest five million dollars in transmission reliability

enhancements and that these amounts would be coming from FPL Group shareholder funds and will not affect customer bills?
MS. MCSHANE:
A. Correct.
MR. JOHNSON:
Q. So would this be a significant fine in the United States' context?
MS. MCSHANE:
A. Yeah, I think it's a fairly significant fine.
MR. JOHNSON:
Q. Okay. Are you aware of previous occasions where the company has been fined?
MS. MCSHANE:
A. Not specifically, no.
MR. JOHNSON:
Q. Okay, and I note that this, according to the third paragraph there, they explained what happened and essentially on February 26th, 2008, there was a service interruption due to human error and it caused an outage that affected approximately 600,000 FPL customers in south east Florida for an average of one hour. That's what's confirmed in that record?
MS. MCSHANE:

A. That's what it says.
MR. JOHNSON:
Q. Okay, yeah. How typical in the United States landscape is there to be fines for service interruptions?
MS. MCSHANE:
A. I don't understand what you mean, how typical.
MR. JOHNSON:
Q. Is it typical in the United States regulatory landscape to have fines for service interruptions?
MS. MCSHANE:
A. There will be fines under--if you break the standards, or in this particular case, they agreed to the fine, rather than go through a whole process to investigate it. It's not something--it happens on occasion. I don't think it's an ongoing problem.
MR. JOHNSON:
Q. Have you ever heard of a fine in Canada for a service interruption?
MS. MCSHANE:
A. Not specifically, but I think these, you know, reliability standards are still being developed across the country and I believe

that the--where they are cross-bordered, that the same standards will apply. For example, you know, in Quebec, Ontario, Alberta, where they connect to the grid.
MR. JOHNSON:
Q. But you're not aware of any specific regime in Canada that stipulates fines of this nature?
MS. MCSHANE:
A. Not at this point, no. But again, I mean, this is something that continues to be developed.
MR. JOHNSON:
Q. Okay, understood, and could you turn to Tab 4, Ms. McShane, please?
MS. MCSHANE:
A. I'm there.
MR. JOHNSON:
Q. And this is a recent story of September 28th, 2009 out of the Palm Beach Post in Florida, and I take it, the first paragraph states, and in this is in relation to some political squabbling in Florida. The first paragraph states "for decades, the Sunshine State has been utility friendly, making regulatory decisions that have allowed its power

companies to earn some of the highest profits of the nation. That, in turn, has brought these companies a wealth of investors." Would that be a fair characteristic of the situation in terms of how it's been perceived in Florida?

MS. MCSHANE:

A. I think it's more how it's been perceived by investors, as opposed to how it's been perceived in Florida, but yes, it's been perceived as a utility friendly state.

MR. JOHNSON:

Q. Where the profits have been pretty handsome?

MS. MCSHANE:

A. The utility, FPL, has been a profitable utility.

MR. JOHNSON:

Q. And I take it that there is--this is what we referred to yesterday with some political controversy and I take it that they are proposing a 1.3 billion dollar a year base rate increase and that it's got a public flack, even at the Governor level in Florida, right?

MS. MCSHANE:

A. That's what the article says.

MR. JOHNSON:

Q. And if you go down to about midway, where it talks about "Crist heightened investors trepidation over the FPL case recently when he threatened not to reappoint Commission Chairman Matthew Carter and Commissioner Katrina McMurrian if they voted in favour of the increase."

MS. MCSHANE:

A. I see that.

MR. JOHNSON:

Q. Would that constitute political risk, the likes of which this jurisdiction has never seen?

MS. MCSHANE:

A. I'm not aware that there's been any specific political risk to date in this jurisdiction. That doesn't mean it's not a risk and there have been situations across Canada of political risk in regulatory jurisdictions.

(9:15 a.m.)

MR. JOHNSON:

Q. What happens when investors' trepidation heightens because of political risk?

MS. MCSHANE:

A. Well, if it's indeed the case, you may see a fall in stock prices.

MR. JOHNSON:

Q. And investors might expect a--demand a higher return in order to put their money with FPL, correct?

MS. MCSHANE:

A. They may, yes.

MR. JOHNSON:

Q. Indeed. Now Ms. McShane, this was just a threat back in September 29th to replace the Commission if they were going to vote for an increase. Could you just turn the tab please to Tab 5? This is an update, October 7th, 2009. Could you indicate what actually did happen?

MS. MCSHANE:

A. Tab 5?

MR. JOHNSON:

Q. Yes.

MS. MCSHANE:

A. You mean in terms of dismissal of the Commission staffers?

MR. JOHNSON:

Q. Well -

MS. MCSHANE:

A. And the replacement of the Commission members?

MR. JOHNSON:

Q. Yeah, the story is out of Talahassee on October 7th, 2009 covered by AP.

MS. MCSHANE:

A. I see that.

MR. JOHNSON:

Q. That "the bond rating firm, Moody's, says Governor Charlie Crist's opposition to proposed rate increases may raise borrowing costs for Florida's two largest utilities."

MS. MCSHANE:

A. Yes, it says it may raise them.

MR. JOHNSON:

Q. Right. "The firm issued a statement Wednesday saying it viewed the highly politicized atmosphere surrounding rate increase from Florida Power and Light and Progress Energy as both negative to their credit quality."

MS. MCSHANE:

A. Yes.

MR. JOHNSON:

Q. And so Crist did go ahead, by the looks of this, to replace two of the five public service commission members.

MS. MCSHANE:

A. He did.

MR. JOHNSON:

Q. Yeah. I'll just turn to the next one, Ms. McShane. I think it's DUKE.

MS. GLYNN:

Q. DUKE would be Consent No. 15.

MS. MCSHANE:

A. I have DUKE.

MR. JOHNSON:

Q. 15?

MS. GLYNN:

Q. Yes.

MR. JOHNSON:

Q. On Tab 1, Ms. McShane, it gives a description of DUKE Energy Corporation, an energy company that provides services to three business segments. The company's business segments are US franchise electric and gas, commercial power and international energy. During the year ended December 31st, 2008, Crescent was a reportable business segment of DUKE Energy. However in '08, the company included the

operations of Crescent other business segment. In September of '08, the company acquired Catamount Energy Corp from Diamond Castle Partners. In June '09, the company's affiliate acquired Aquaytia Energy LLC from the Maple Gas Corporation, a partially owned subsidiary of Maple. I guess there's a lot of corporate activity going on with these holding companies, including DUKE.

MS. MCSHANE:

A. Well, in DUKE, I mean, there are some relatively small unregulated operations. DUKE is about 85 percent regulated operations.

MR. JOHNSON:

Q. And you say 15 percent unregulated, and would that be--what's the unregulated, generation or -

MS. MCSHANE:

A. Some would be generation, yes.

MR. JOHNSON:

Q. Okay. Now if you go into Tab 2, or Tab 3, pardon me, page 5 of 16, at the overview there, they again talk about what DUKE is and they note in the second line, "the company primarily operates in the United States.

They're headquartered in Charlotte, North Carolina," et cetera. They carry on business outside of the United States. Do they carry on business in Canada?

MS. MCSHANE:

A. Do they carry on business in Canada? Well, they spun off their operations which were their gas operations, which were Canadian, which were West Coast Union. I'm not sure whether they still have an ownership position in Spectra Energy, which were primarily Canadian operations or largely Canadian operations.

MR. JOHNSON:

Q. So I guess they would be talking about outside of Canada and the United States as well then?

MS. MCSHANE:

A. Yeah, there are some international operations that are not Canadian.

MR. JOHNSON:

Q. Okay, and because you mention in your direct about some of the Canadian utilities holding companies having operations outside of Canada as well, didn't you?

MS. MCSHANE:

A. I did.

MR. JOHNSON:

Q. Yeah, and regarding the amount of generation that Duke Energy is into, do we have a sense of what that amount is? I don't know right offhand here. I'm wondering if you have a sense of it.

MS. MCSHANE:

A. Well, they're a vertically integrated utility and they're--so they're going to have, you know, enough generation to meet their native load in North Carolina. I don't know what the number of megawatts is off the top of my head.

MR. JOHNSON:

Q. Do they use coal for generation?

MS. MCSHANE:

A. Yes, they do.

MR. JOHNSON:

Q. And just turn to Tab 2, and this is September 1st '09 story out of the Energy Economist and what I'm referring to is the third paragraph where they talk about "however, it is coal that has seen the largest downturn in absolute terms. Electricity generated from coal, the United States' power industry mainstay,

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dropped 13.27 percent between April 2007 and April 2009. By contrast, output from natural gas power plants rose 2.15 percent, supported by much lower gas prices and nuclear, 3.19 percent. Conventional hydro electric was also up 5.58." So would this have been a hit on Duke, if they lost--if coal generation went down that much because of the price differences for natural gas?
MS. MCSHANE:
A. Yeah, it would have had some impact on Duke.
MR. JOHNSON:
Q. And just -
MS. MCSHANE:
A. It wouldn't have had the impact in the regulated part of the business, which is again 85 percent of their operating income.
MR. JOHNSON:
Q. That paragraph we just looked at, three down from that, it talks about an earnings slump.
MS. MCSHANE:
A. I see that.
MR. JOHNSON:
Q. "The tough pricing environment has been reflected in second quarter earnings. North

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Carolina based Duke, one of the US largest electrical power companies, posted a small second quarter profit, but earnings were down 21 percent from a year earlier." So are they--what are they talking about there? The overall company, aren't they?
MS. MCSHANE:
A. Yes, they are.
MR. JOHNSON:
Q. So they were down 21 percent and they attribute that to what's happening with coal generation, don't they?
MS. MCSHANE:
A. Partly, not in entirety, no.
MR. JOHNSON:
Q. Okay, but it had a role to play in it?
MS. MCSHANE:
A. Sure.
MR. JOHNSON:
Q. Yeah. Just Tab 4 on Duke, the very first page dealing with the profile. "Duke Energy is the third largest electric power holding company in the United States based on kilowatt hour sales. Our regulated utility operations serve approximately four million customers located

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in five states in the southeast and midwest, representing a population of approximately 11 million. Our commercial power and international business sections own and operate diverse power generation assets in North America and Latin America, including a growing portfolio of renewable energy assets in the United States." And Ms. McShane, does that sound comparable to a T & D like Newfoundland Power operating in Newfoundland?
MS. MCSHANE:
A. Well, again, each of these companies has different characteristics. If you look at the overall investment risk profile of Duke Energy, it's highly regulated. It's viewed as a company that has--operates in the constructive regulatory environment. It's considered to have, you know, diversity of operations. If you look at the measures of investment risk, if you look at the Beta, the debt ratings, the financial risk, I mean, all of those factors lead to an overall investment risk profile that is, you know, from an investor's perspective, relatively low risk. So no, it's not completely comparable to a

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Newfoundland Power. No individual utility will be. I mean, every company is unique. Newfoundland Power is unique. But if you look at the, you know, overall sample of companies and the average of the various risk measures, I mean, this is a sample that you could view as in--of comparable risk to a Newfoundland Power. I mean, Duke Energy is considered to be one of the lower business profile--lower risk business profile integrated electric utilities. Not every vertically integrated electric utility is going to be viewed as relatively low risk, so they wouldn't be, you know, chosen for a sample.
MR. JOHNSON:
Q. Ms. McShane, if you could--we'll revisit what we take generally from all of this, but if you could turn to page or Tab 4, page 22, where Duke gets into talking about a regulation focus.
MS. MCSHANE:
A. Sorry, page 22 of?
MR. JOHNSON:
Q. Tab 4, and what I'm referring there to is they're talking about "imagine a regulated

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utility where customers are charged for the value they receive instead of the cost incurred. In such a world, utilities would focus on lowering their cost and delivering a valuable service to customers. If the services don't produce value, the customers doesn't pay," and then they talk about "this is the basic premise behind Duke Energy's innovative Save-a-Watt approach to energy efficiency. It is a fundamental shift away from the traditional cost of service model, focusing instead on a value of service regulatory model. Under Save-a-Watt, Duke Energy must ensure that its energy efficiency programs produce value in the form of verifiable energy reductions in order for the company to reduce its cost. In order for the company," I'm sorry, "to recover its costs." Is that similar to the Newfoundland Power model?

MS. MCSHANE:
A. Well, all utilities are moving towards focusing on energy conservation.

MR. JOHNSON:
Q. But that's not what I asked you. Does that look like Newfoundland Power's model?

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MS. MCSHANE:
A. Well, I mean, this company still operates generally under a cost of service regulatory model. I mean, they are talking about the specific save-a-watt approach to energy efficiency, but the model that Duke Energy or Duke Power operates under is a cost of service model.

(9:30 a.m.)

MR. JOHNSON:
Q. But just go over to the right, Ms. McShane, the second paragraph from the top. Unlike--or first paragraph, "unlike other regulatory approaches to energy efficient, save-a-watt ensures customers only pay for actual reductions in energy use because all programs undergo a rigorous third party process to verify the savings. Under more traditional regulatory models, customers pay for energy efficiency programs on whether they achieve the intended results. If power has to be sourced to compensate for a shortfall in energy efficiency, customers end up paying twice, once for the energy efficiency programs and again for the cost of power. But under the save-a-watt model, the utility takes the risk. If the intended energy efficiency results aren't achieved, the customer doesn't pay." Now that's not traditional cost of service, is it?

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MS. MCSHANE:
A. No, it's slightly different from original -

MR. JOHNSON:
Q. It is slightly different, isn't it? And this is a new regulatory focus, is it?

MS. MCSHANE:
A. For?

MR. JOHNSON:
Q. For Duke?

MS. MCSHANE:
A. Yeah, and it's a focus that other utilities are moving towards.

MR. JOHNSON:
Q. And just look at the bottom paragraph on page 22. They talk about the save-a-watt approach again. "Save-a-watt approach to energy efficiency would help customers save money and create jobs, et cetera. At the same time, it provides utilities with a way to grow their business." Again, reflective of an entrepreneurial approach that we've seen in other utilities in the United States, haven't we?

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MS. MCSHANE:
A. Yeah, utilities are entrepreneurial.

MR. JOHNSON:
Q. Well, in this jurisdiction, if the intended energy efficiency results from Newfoundland Power's conservation program don't end up being achieved, will Newfoundland Power be hurt by that?

MS. MCSHANE:
A. Sorry, would you repeat that please?

MR. JOHNSON:
Q. Yes. If, in this jurisdiction, Newfoundland Power's energy efficiency efforts don't end up producing the results, will Newfoundland Power be hurt by that, like Duke tends to say that it will be?

MS. MCSHANE:
A. So you're saying if they don't achieve -

MR. JOHNSON:
Q. The intended results, in terms of conservation efficiency, will Newfoundland Power end up

getting hurt by that?
MS. MCSHANE:
A. They would be hurt by not achieving the sales that they said they were going to achieve.
MR. JOHNSON:
Q. Yeah, but will it be a pocketbook effect on them? Will they be denied their cost of the program, for instance?
MS. MCSHANE:
A. Well, I don't believe that there is any indication that they will, no.
MR. JOHNSON:
Q. No, but that's what Duke is indicating though, isn't it?
MS. MCSHANE:
A. In this particular case, yes.
MR. JOHNSON:
Q. Well, it's only their filing. That's all I can go on.
MS. MCSHANE:
A. Well, it's in Ohio, which is one of the jurisdictions. It's not the big jurisdiction.
MR. JOHNSON:
Q. So are you saying that--you know for a fact, do you?

MS. MCSHANE:
A. It says so. It says it's Ohio. It's on that page. It doesn't say it's North Carolina, which is where their big -
MR. JOHNSON:
Q. Yeah, just see what it says in the last sentence there, in that last paragraph.
MS. MCSHANE:
A. That they--I see that they continue to seek approval of other programs.
MR. JOHNSON:
Q. Yeah, they -
MS. MCSHANE:
A. But, you know, all utilities are dynamic. They're not sitting still in terms of developing -
MR. JOHNSON:
Q. But Ms. McShane, in fairness to me now, you said that this is Ohio and you've tried to isolate it to Ohio. But the last paragraph says "we continue to seek its regulatory approval in the other states where we have regulated utility operations." It seems like a corporate philosophy of Duke that they want to spread that save-a-watt around the United

States, don't they?
MS. MCSHANE:
A. Apparently so, yes.
MR. JOHNSON:
Q. Yeah. That's all I was trying to get you to acknowledge. The next one is Dominion Resources.
MS. GLYNN:
Q. Dominion will be Consent No. 16.
MS. MCSHANE:
A. I have Dominion.
MR. JOHNSON:
Q. Okay. Tab 1, Ms. McShane.
MS. MCSHANE:
A. I have that.
MR. JOHNSON:
Q. Again, business description, is a producer and transporter of energy. The company's portfolio of assets include approximately 27,000 megawatts of generation, 6,000 miles of electric transmission lines, 56,000 miles of electric distribution lines in Virginia, North Carolina, 14,000 miles of natural gas transmission gathering and storage pipelines, 28,000 miles of gas distribution pipeline,

exclusive of service lines. They also own underground natural gas storage system and operate over 975 billion cubic feet of storage capacity and serves retail customers in 12 states. They operate in three segments, Dominion Virginia, Dominion Energy and Dominion Gen, and page--so do they have--what proportion of this company would be unregulated, Ms. McShane?
MS. MCSHANE:
A. About a third.
MR. JOHNSON:
Q. About a third?
MS. MCSHANE:
A. Yes.
MR. JOHNSON:
Q. You indicated yesterday that five percent would be significant?
MS. MCSHANE:
A. Well, it would be measurable, yeah. It would be significant in the sense that it's measurable.
MR. JOHNSON:
Q. Yeah, and could you go to page--Tab 3?
MS. MCSHANE:

A. I have that.
MR. JOHNSON:
Q. And if you could flick into the fourth page in that form 10K.
MS. MCSHANE:
A. It's the page marked page four?
MR. JOHNSON:
Q. No, actually it's marked page two at the bottom.
MS. MCSHANE:
A. Okay, I have that.
MR. JOHNSON:
Q. Yeah. In the second long paragraph that starts with "our principal direct legal subsidiaries," you have that?
MS. MCSHANE:
A. I do.
MR. JOHNSON:
Q. Yeah. Around in the middle of that paragraph, they talk about DEI, "DEI is involved in merchant generation."
MS. MCSHANE:
A. Yes.
MR. JOHNSON:
Q. Okay. Would this--they're involved in

merchant generation, energy marketing, price risk management activities and natural gas and oil exploration and production in the Appalachian Basin?
MS. MCSHANE:
A. Yes.
MR. JOHNSON:
Q. So they're into the oil business as well then?
MS. MCSHANE:
A. A little bit, yes.
MR. JOHNSON:
Q. Yeah. How has the oil business been for Dominion?
MS. MCSHANE:
A. I haven't looked at specifically how the oil business has been for Dominion.
MR. JOHNSON:
Q. But oil companies -
MS. MCSHANE:
A. I've looked at the overall operations.
MR. JOHNSON:
Q. - oil companies over the last few years have done pretty well, haven't they, Ms. McShane?
MS. MCSHANE:
A. Yes, they have.

MR. JOHNSON:
Q. Yeah, better than utilities?
MS. MCSHANE:
A. Over the past couple of years, yes.
MR. JOHNSON:
Q. Yeah.
CHAIRMAN:
Q. Meaning like in return on equity, oil companies have?
MS. MCSHANE:
A. In return on equity, maybe not.
CHAIRMAN:
Q. I'm sorry for interrupting, but -
MR. JOHNSON:
Q. Yeah.
MS. MCSHANE:
A. Sorry, probably not, just because they're so much more equity heavy than utilities. So if you actually looked at the return on equity in a percentage basis and if you're 70 percent equity, you'd see the actual percent return probably lower than it would be for, you know, companies like utilities which are 45 percent equity. But profitable, yes, very profitable. Exxon, for example.

CHAIRMAN:
Q. But their ROE is only around nine percent, isn't it? That's what I read. Now, I mean, -
MS. MCSHANE:
A. That's possible. If you think of it in terms of 9 on 70. I haven't specifically looked at those numbers, but that would not be an unreasonable number.
MR. JOHNSON:
Q. And at page six, the small page six at the bottom left.
MS. MCSHANE:
A. Yes.
MR. JOHNSON:
Q. They talk about competition, "Dominion Energy's gas transmission operations compete with domestic and Canadian pipeline companies". Would that be regulate or unregulated? Unregulated, I presume.
MS. MCSHANE:
A. Gas transmission is regulated.
MR. JOHNSON:
Q. That would be regulated?
MS. MCSHANE:
A. Yes.

MR. JOHNSON:
Q. So they face competition?
MS. MCSHANE:
A. Pipelines do face competition, pipeline pipe competition, if there are a couple of pipelines that are going into the same end market. They usually have contracts on the pipelines, though.
MR. JOHNSON:
Q. Could you turn to the bottom of page 12 -- I'm sorry, page 12, small 12, on the bottom left.
MS. MCSHANE:
A. I see that.
MR. JOHNSON:
Q. I'm referring to the status of electric regulation in Virginia.
MS. MCSHANE:
A. Yes.
MR. JOHNSON:
Q. As I understand that, they talk about the 2007 Virginia Regulation Act and fuel factor amendments. They say that, July 1st, '07, legislation amending the Virginia Electric Utility Restructuring Act, and the fuel factor statute became effective, which significantly

changed electricity regulation in Virginia, and do you know much about that?
MS. MCSHANE:
A. I know that in Virginia, Virginia was a state that restructured, separated their generation from transmission and distribution, and then decided to go back to bundled regulation.
MR. JOHNSON:
Q. If you can just go to the top of the next page, starting with, "After the 2009 rate review, the Virginia Commission will conduct bi-annual reviews of our rates, terms, and conditions beginning in 2011. As in the 2009 rate review, our ROE in the bi-annual reviews can be no lower than that reported by not less than a majority of comparable utilities within the southeastern US, with certain limitations as described in the Act". So are they now embarking upon, like, some sort of regulatory or legislative ROE tied to other states in their area?
MS. MCSHANE:
A. That would appear to be that they can't -- I mean, obviously, it sounds like the Commission can allow a higher ROE, but it is limited to -

- it has limits as to what the bottom end of the range can be.
MR. JOHNSON:
Q. And page 13 just below that talks about Virginia fuel expenses. "Under amendments to the Virginia fuel cost recovery statute passed in 2004, our fuel factor provisions were frozen until July 1st, 2007. Fuel prices increased considerably during that period, which resulted in our fuel expense being significantly in excess of our fuel cost recovery. Pursuant to the 2007 amendments to the fuel recovery statute, annual fuel rate adjustments would defer fuel accounting for over or under recoveries of fuel costs where we instituted at the beginning of July 1st. While the 2007 amendment did not allow us to collect any unrecovered fuel expenses that were incurred prior to July 1st, 2007, once our fuel factor was adjusted, this mechanism ensures dollar for dollar recovery for prudently incurred fuel". So they were at risk for fuel?
MS. MCSHANE:
A. They were.

MR. JOHNSON:
Q. Okay.
MS. MCSHANE:
A. Before, and now they're not.
MR. JOHNSON:
Q. Now they're not, okay. That was a pretty hectic risk item, I imagine.
MS. MCSHANE:
A. But it doesn't exist any more.
MR. JOHNSON:
Q. Con Ed is #2.
MS. GLYNN:
Q. That would be Consent #17.
MR. JOHNSON:
Q. Tab 1, Ms. McShane, if you're there.
MS. MCSHANE:
A. Yes, I have that.
MR. JOHNSON:
Q. Gives a business description of Con Edison Inc., holding company of Con Edison Company of New York Inc., and Orange & Rockland Utilities Inc., both of which are regulated utilities. Con Edison's principal business segments are Con Edison of New York's regulated electric, gas, and steam utility segments, O & R's

regulated electric and gas utility segments, and Con Edison's competitive energy businesses. What proportion of Con Ed would be unregulated?

MS. MCSHANE:

A. I don't have the precise amount, but it's quite small.

MR. JOHNSON:

Q. Quite small, okay. Tab 3, page seven at the bottom. That's where they talk about their competitive energy businesses. They pursue competitive energy opportunities through three wholly owned subsidiaries; Con Edison Development, Consolidated Edison Energy Inc., and Consolidated Edison Solutions. Over on the next page, the third paragraph down, page 8, "Con Edison Solutions reported by KEMA Consulting as of August, 2008, the 10th largest non-residential retail electricity provider in the United States".

MS. MCSHANE:

A. I'm not sure where you are.

KELLY, Q.C.:

Q. We're not sure either, Tom.

MR. JOHNSON:

Q. I'm sorry, page eight of that same tab, the next page over.

MS. MCSHANE:

A. I see page eight.

MR. JOHNSON:

Q. And the third paragraph down from the top on the left.

KELLY, Q.C.:

Q. Which tab, Tom?

MR. JOHNSON:

Q. Tab 3. It's just the page after the one we were looking at.

KELLY, Q.C.:

Q. Is this it?

MR. JOHNSON:

Q. No. You don't have it, Tab 3, page eight. Well, I guess we can straighten it up later if there's a problem, but it indicates that that competitive --

MR. SIMMONS:

Q. There's another page eight about eight pages on.

MR. JOHNSON:

Q. Okay.

MS. MCSHANE:

A. You're talking about page eight of the 10K perhaps.

MR. JOHNSON:

Q. Do you have it now? Okay. Yeah, I was just referring to that third paragraph, "Con Ed Solutions reported as the 10th largest non-residential retail electricity provider in the United States". So that would be obviously the non-regulated piece?

MS. MCSHANE:

A. It is, yeah.

MR. JOHNSON:

Q. Page 13.

MS. MCSHANE:

A. I have that.

(9:45 a.m.)

MR. JOHNSON:

Q. Actually, I'm falling prey to my -- I understand, and I had a reference here that this Con Ed generates 2.8 million megawatt hours of electricity. Now I can't seem to find it.

KELLY, Q.C.:

Q. Page 13?

MR. JOHNSON:

Q. Page 13, I believe. That's what I thought.

MS. MCSHANE:

A. Page 13, if you look at the first little block, electric energy, and this is only Con Ed of New York, right, so it doesn't include Orange & Rockland. So they generated 10 percent of their own power, it looks like, because it says 2,857,711 megawatts, or I guess those are kilowatt hours, and purchased 23.

MR. JOHNSON:

Q. At page 18, I hope that's five pages beyond the one we just talked about, at the left hand column, the bottom paragraph, this is the idea of the super fund.

MS. MCSHANE:

A. Right.

MR. JOHNSON:

Q. Yeah. The Federal Comprehensive Environmental Response Compensation and Liability Act of 1980, and similar state statutes, super fund imposed joint and several liability regardless of fault upon generators of hazardous substances for investigation costs, remediation costs, and environmental damages.

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MS. MCSHANE:
A. Right.
MR. JOHNSON:
Q. And so that would be a material risk for any generator in the United States, right?
MS. MCSHANE:
A. Manufactured gas lights, they're talking about here.
MR. JOHNSON:
Q. Well, that would refer to more than just gas lights, though, wouldn't it? I'm talking about the super fund, what that attaches to generally.
MS. MCSHANE:
A. We're talking about Con Ed specifically and they're talking about manufactured gas lights.
MR. JOHNSON:
Q. Yes, but, Ms. McShane, this piece of legislation, would that -- do you know anything about that at all, what risk that poses to generators in the United States?
MS. MCSHANE:
A. If you have a liability that's assigned to you, you have to cover it, but here we're talking about manufactured gas lights.

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MR. JOHNSON:
Q. Yeah, okay. Do you have any knowledge of super fund beyond what you're seeing here?
MS. MCSHANE:
A. Not with respect to Con Ed, no.
MR. JOHNSON:
Q. How about --
MS. MCSHANE:
A. I know generally that what we've discussed today and yesterday, that the government can assign liability for clean ups for sites to utilities. In Con Ed's case, we're talking about manufactured gas lights.
MR. JOHNSON:
Q. But it's just not utilities, it would apply to other companies that have sites?
MS. MCSHANE:
A. Yes, of course.
MR. JOHNSON:
Q. Right. So the super fund would apply not just to manufactured gas, but other utilities that produce other means of electricity generation?
MS. MCSHANE:
A. It could, yes.
MR. JOHNSON:

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Q. And just at page 11, right hand column, regarding competition. Con Edison of New York is primarily a wires and pipes energy delivery company, and the second hyphen there, provides its customers the opportunity to buy electricity and gas from other suppliers. So what sort of competition are they talking about there, Ms. McShane?
MS. MCSHANE:
A. They're talking about retail competition. So its customers don't have to buy electricity or gas from Con Ed, they can buy it from other companies.
MR. JOHNSON:
Q. And would that -- that would be a difference than what we're talking about in Newfoundland Power?
MS. MCSHANE:
A. Sure, it's a difference. It's not different in terms of -- particularly in terms of risk because to the extent that Con Ed doesn't supply the electricity, they don't incur any cost, and to the extent that they do supply the electricity or the gas, they have pass throughs for those costs.

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MR. JOHNSON:
Q. So it makes no difference whatsoever?
MS. MCSHANE:
A. I wouldn't say it makes no difference. I mean, everything can be said to be somewhat of a difference, but in terms of the overall risk, I mean, Con Ed is covered.
MR. JOHNSON:
Q. But if you're geared up to supply "x" hundreds of thousands of customers, and then, you know, a certain percentage of those customers decide for reasons that maybe they can get better service somewhere else, would that not impose a risk for these companies?
MS. MCSHANE:
A. We have similar situations, for example, with the gas distributors in Ontario where they have choices, and it hasn't imposed any particular risk for them. They manage their portfolios in such a way that that risk is covered off.
MR. JOHNSON:
Q. Yes, but it is a risk, it's just that they manage it?
MS. MCSHANE:

A. Well, there may be some underlying risk, but it's not a large risk. I mean, it's not even noted as a risk when you look at investment reports.

MR. JOHNSON:

Q. Ms. McShane, at Tab 3, page four on the bottom, this is a Glossary of Terms.

MS. MCSHANE:

A. Sorry, Tab 3, page four?

MR. JOHNSON:

Q. Right. I'm sorry, Tab 3.

KELLY, Q.C.:

Q. We're still on the 10K, though?

MR. JOHNSON:

Q. We're still on the 10K. There's four on the bottom.

MS. MCSHANE:

A. Yeah.

MR. JOHNSON:

Q. It's the glossary.

MS. MCSHANE:

A. Yes.

MR. JOHNSON:

Q. You see regulatory state agencies, ALJ's Administrative Law Judges.

MS. MCSHANE:

A. Yes.

MR. JOHNSON:

Q. What is that?

MS. MCSHANE:

A. An Administrative Law Judge is a person who basically is a proxy for the Commissioners and they hear cases, and they write initial decisions, and then the Commission, itself, will review the Administrative Law Judge's decision and either accept it or change it.

MR. JOHNSON:

Q. So there's not a -- like, in this jurisdiction on applications, the company would appear right before the Commissioners themselves. That doesn't happen in most jurisdictions in the -- well, it doesn't happen down in New York, is that what you're saying?

MS. MCSHANE:

A. It doesn't happen in New York, no.

MR. JOHNSON:

Q. So you'd have to appear before a single Administrative Law Judge?

MS. MCSHANE:

A. No, not necessarily. I don't know exactly how

it works in New York. I know, for example, in Illinois, it's a panel of Administrative Law Judges, but it's not the same across the country either. I mean, there are some states, for example, Missouri, where you appear before the entire Commission, but in any case, I mean, the Commission, whether it sits there through the whole case or reviews the case, I mean, it is the final arbiter of the decisions.

MR. JOHNSON:

Q. Thank you, Ms. McShane. Finally, AGL Resources Inc.

MS. GLYNN:

Q. AGL will be Consent #18.

MR. JOHNSON:

Q. At Tab 1, of course, we have the description, Energy Services Holding Company, whose principal business is the distribution of natural gas, six states; Florida, Georgia, Maryland, New Jersey, Tennessee, and Virginia. Company is involved in various related business, including retail natural gas, marketing to customers primarily in Georgia. On that point, you noted that this company in

your schedule to CA-NP-18.

MS. MCSHANE:

A. Sorry, yes.

MR. JOHNSON:

Q. Yes.

MS. MCSHANE:

A. That may have been confusing, yes, okay. They sell gas to -- AGL Resources sells gas. Atlantic Gas Light, the utility, does not sell gas. So what I was dealing with in that table were the regulatory mechanisms of the utilities.

MR. JOHNSON:

Q. Okay.

MS. MCSHANE:

A. So Atlantic Gas Light, because it does not sell gas, does not require a purchase gas adjustment in its regulated business.

MR. JOHNSON:

Q. So they do that through unregulated side of the company in Georgia, okay. They have as well natural gas, asset management, and related logistics activities for its own utilities, as well as for non-affiliated companies, natural gas storage arbitrage and

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related activities, development and operation of high deliverability, underground gas storage, et cetera. What proportion of this company would be regulated versus unregulated?

MS. MCSHANE:

A. I think it's about 75 or 80 percent regulated.

(10:00 a.m.)

MR. JOHNSON:

Q. If you could turn to Tab 2. This is a August 5th, 2009, story regarding their ratings, and I note that in the third paragraph, they say, "The strong cash flow generation from AGL's regulated gas distribution operations, the supported regulatory environment, and low operating risk and gas distribution utility support credit quality. These are offset by continued focus on the wholesale and retail gas marketing operations. Fluctuating working capital leads to unregulated businesses, and historical pursuit of opportunistic acquisitions".

MS. MCSHANE:

A. Yes.

MR. JOHNSON:

Q. So this company would be, you know,

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entrepreneurial on their regulated side, I take it?

MS. MCSHANE:

A. I don't understand what you mean by entrepreneurial on their regulated side.

MR. JOHNSON:

Q. You know, they talked about their historical pursuit of opportunistic acquisitions. In other words --

MS. MCSHANE:

A. In other words, they've started out as Atlantic Gas Light, and in the last few years they've acquired Chattanooga Gas, they've acquired Elizabeth Town Gas, they acquired Virginia Natural Gas, Florida Natural Gas. So, yeah, they've acquired other --

MR. JOHNSON:

Q. So an investor in this company would be investing on the basis of an understanding that this is a company that has a history of pursuing opportunistic acquisitions, and perhaps they'll do some more of them, right?

MS. MCSHANE:

A. Sure. Investors may look at AGL Resources as a company that's going to diversify its gas

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utility operations.

MR. JOHNSON:

Q. But also it increases portfolio of non-regulated businesses?

MS. MCSHANE:

A. I thought you were talking about its regulated business.

MR. JOHNSON:

Q. I'm talking about an investor in this holding company.

MS. MCSHANE:

A. Yeah, I think that investors would look at this company as a company that pursues growth opportunities.

MR. JOHNSON:

Q. Yeah, on the non-regulated side?

MS. MCSHANE:

A. And on the regulated side, and what we were just talking about, the Virginia Natural Gas, Florida Natural Gas, Elizabeth Town Gas, those are all regulated operations.

MR. JOHNSON:

Q. Ms. McShane, if you could turn to the last page of Tab 2. Under energy investments, they talk about Jefferson Island Storage and Hub

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operates high deliverability natural gas storage facility in Louisiana, and then they go on to say, "Golden Triangle Storage is building a high deliverability natural gas storage facility in Texas. The project initially will consist of two underground salt dome storage caverns that will hold approximately 17 BCF total capacity, and approximately 12 BCF working gas capacity". So this would be on the non-regulated side, I take it?

MS. MCSHANE:

A. It would be non-regulated. The business itself would probably be subject to a fee based or contract based business.

MR. JOHNSON:

Q. At page 46 of that Tab 3, under the MD & A, the last paragraph there, they refer to, "Due to the rising commodity price environment, and the widening of transportation basis spread during the first six months of 2008, Sequent recorded 70 million dollars in losses on the financial instruments it used to hedge its storage and transportation positions". I take it Sequent would be the unregulated part of

this business as well?
MS. MCSHANE:
A. Yes, it is.
MR. JOHNSON:
Q. That concludes the binders, Ms. McShane. Thank you. Ms. McShane, we've gone through these companies over the past number of hours, and we've seen that these companies have risks, such as associated with construction of nuclear facilities, potential cost overruns, some being subject to competition, others being subject to disallowances of even things like fuel costs. We've seen companies with extensive non-regulated portfolios, extensive generation capability, in some cases markedly less regulatory support than would be the norm in this jurisdiction, and we've also seen fairly dramatic political chaos in the State of Florida, so much so that Moody's came in and made a specific comment on it, and I put to you, Ms. McShane, that Newfoundland Power doesn't seem to have any of these risks, do they?
MS. MCSHANE:
A. All these companies are different. I mean,

they all have different characteristics, some are the same, some are different. I understand that, you know, you might look at an individual company and its got some different characteristics from Newfoundland Power. At the end of the day, I think, you know, what you have to do is to look at this in the context of the overall investor perception of these companies, and if you look at Schedule 15 of my evidence, you know, we're talking about utilities that are at the very top of the safety ranking. Of all companies, they've got similar safety rankings to Canadian utilities that are covered by value line, which provides these safety rankings. They have similar betas to the relative risk adjustments that I have estimated for a typical Canadian utility, they have the same business risk profile, they've got higher debt ratings by Moody's than Newfoundland Power and other Canadian utilities, they have similar S & P debt rating to -- I know that Newfoundland Power no longer has an S & P debt rating, but most Canadian utilities do, and so on balance, I would say that the investor would view this

sample of companies as being relatively comparable in risk to an average risk Canadian utility, which this Board has agreed that Newfoundland Power is.
MR. JOHNSON:
Q. How many Canadian utilities are rated by value line?
MS. MCSHANE:
A. Two.
MR. JOHNSON:
Q. Which ones are they?
MS. MCSHANE:
A. TransCanada and Enbridge.
MR. JOHNSON:
Q. And how are they rated by value line?
MS. MCSHANE:
A. I believe one is two, and one is three, actually.
MR. JOHNSON:
Q. And two meaning?
MS. MCSHANE:
A. On a scale of one to five, with one being the most stable.
MR. JOHNSON:
Q. Yeah.

MS. MCSHANE:
A. And five meaning the least stable.
MR. JOHNSON:
Q. So two would be -- is there a description on two?
MS. MCSHANE:
A. Yeah, it has to do with the financial strength and the price persistence.
MR. JOHNSON:
Q. So you say one is more stable?
MS. MCSHANE:
A. Yes.
MR. JOHNSON:
Q. And five is --
MS. MCSHANE:
A. The least stable.
MR. JOHNSON:
Q. Yeah, and two, what's the descriptive word on it? You say it has to do with something, but is there a descriptive word on it?
MS. MCSHANE:
A. It's the financial -- sorry, safety is a combination of price persistence and financial strength of the company.
MR. JOHNSON:

Q. Now, Ms. McShane, I mean, it seems -- it's fine for you to make the S & P. We've already discussed that, you know, S & P doesn't even have a relationship with Newfoundland Power any more, and we've seen that Moody's, which does have a relationship with Newfoundland Power, specifically says that, you know, they would put only US T & D into the low business risk category that Newfoundland Power would be in, correct?

MS. MCSHANE:

A. I don't think we agreed to that. We agreed that they said that they viewed generally -- I believe their words would be interpreted as "generally they would view vertically integrated utilities as higher risk than T & D companies.

MR. JOHNSON:

Q. We're not going to go there again. We have a different view on that, but it seemed to me, in all honestly, Ms. McShane, that as you go through each and every one of your companies, I don't see a single one of them that would have all of the regulatory protections, for instance, that Newfoundland Power has. I

mean, let's just -- it's like an alphabet of what Newfoundland Power has. They have the demand management incentive account, they have the energy supply cost variance account, they have the weather normalization reserve, the RSA. They have a component in the RSA that picks up municipal tax adjustments. They have proposed and it's been agreed that they're going to have a PEVDA. PEVDA is one of the notes in your columns for deferral mechanisms and CA-NP-18 is trackers for pension and OPEBs expenses. So you obviously consider those things?

MS. MCSHANE:

A. Yes.

MR. JOHNSON:

Q. In your analysis. We have the most -- we are in a country that is recognized by Moody's as the most regulatory supportive on earth, along with a short list of others. We have Moody's saying that they put this regulator as one of the more supportive in Canada. We have pre-approval of capital budgets, we have no history of disallowances, we have no fines, and we have an ability for Newfoundland Power

to make ad hoc applications to set up accounts when it needs to, and when they do so, they appear right before these people, not some Administrative Law Judge. Now, Ms. McShane, where is the business risk for the investor in Newfoundland Power.

MS. MCSHANE:

A. Well, I mean, just because the utility has not experienced a risk doesn't mean that the risks aren't there. I grant you that this company has been relatively stable and they've got a good supportive regulatory environment, but there are still long term risks to the company and when you try to figure out what the cost to capital is for a company or utility, you need to look at proxy companies, and I noted that these companies aren't an identical risk to Newfoundland Power, but they are the closest proxies, in addition to the Canadian companies that I've looked at, that are available. I mean, this is the process we all go through to try to figure out what the estimate of a cost to capital for a utility is. Newfoundland Power is not publicly traded.

MR. JOHNSON:

Q. Ms. McShane, these companies that are mentioned in Schedule 15 of your evidence, in what context have you been using these 15 companies in your testimony as you travel from jurisdiction to jurisdiction?

MS. MCSHANE:

A. As proxies for benchmark Canadian utility.

MR. JOHNSON:

Q. And do you use them in the United States?

MS. MCSHANE:

A. It depends on who I'm testifying for, and if I'm testifying for a vertically integrated utility which is triple B rated, then I would pick a sample of companies that would be of comparable risk to the company that I'm testifying for.

MR. JOHNSON:

Q. Yes, you do some vertically integrated US utility, I agree with you, you would. Now regarding S & P, Ms. McShane, you're aware from your experience here in this province that S & P had a ring fencing issue. Are you aware of that?

MS. MCSHANE:

A. Yes.
MR. JOHNSON:
Q. Just explain what the concern was by S & P?
(10:15 a.m.)
MS. MCSHANE:
A. S & P was concerned that if a holding company could essentially rate the earnings of a subsidiary, that it could impair the credit quality of the operating subsidiary. So it decided that unless there was good ring fencing in place, that it wouldn't rate the operating subsidiary higher than the parent company.
MR. JOHNSON:
Q. So they could basically strip the subsidiary of cash or make the -- the parent, rather, could have the subsidiary borrow all sorts of monies which then the subsidiary would pay over to the parent, and the subsidiary's bond holders could be left holding the bag. Would that be the concern?
MS. MCSHANE:
A. I think that was partly their concern, yes, that if there weren't those -- if there weren't plans in place or regulatory

constraints in place to prevent that, then that was a concern of theirs.
MR. JOHNSON:
Q. And I take it that that happened in the United States, these UHC's or utility holding companies did just that in the United States, didn't they?
MS. MCSHANE:
A. There may have been one or two occasions that that happened, but it's not been something that's been widespread.
MR. JOHNSON:
Q. Would Enron have been an example of it?
MS. MCSHANE:
A. That would have been "the" example, I believe, and even there not all of Enron's subs were in that situation. So you've got Portland General Electric, for example, which was a utility subsidiary of Enron, which was ring fenced and which always maintained its investment grade credit rating throughout the whole Enron debacle.
MR. JOHNSON:
Q. And the -- there was some in terms of -- do you know of any experience in Canada where a

similar event happened, where the subsidiaries bond holders were left holding the bag?
MS. MCSHANE:
A. No, but I would never have considered Enron to be a utility company for purposes of estimating the cost to capital for a utility.
MR. JOHNSON:
Q. No, but they held -- they were an owner of regulated utilities, weren't they?
MS. MCSHANE:
A. Sure, but, I mean, it's a single case.
MR. JOHNSON:
Q. But a celebrated case?
MS. MCSHANE:
A. Yes, it was a very celebrated case, but I don't know that that necessarily has anything to do with, you know, how one would view the risk of an AGL Resources, or a Florida Power and Light.
MR. JOHNSON:
Q. But it would be more in the conscious of a US investor, though, than a Canadian investor, wouldn't it?
MS. MCSHANE:
A. I guess I -- I mean, I don't see that one

situation like that impacts the way you would view the risk of these kinds of companies that have a clear history of regulated operations, not involved in the kinds of businesses that Enron was.
MR. JOHNSON:
Q. But, Ms. McShane, I guess it's a big enough risk in the minds of S & P, that they still won't rate a subsidiary any higher than the parent unless there's legislative ring fencing or other regulatory ring fencing around the subsidiary, isn't that correct?
MS. MCSHANE:
A. I mean, I think it's a concern from their perspective that --
MR. JOHNSON:
Q. But that's correct what I just said, wasn't it?
MS. MCSHANE:
A. That it's a concern that they won't --
MR. JOHNSON:
Q. Yeah.
MS. MCSHANE:
A. Yes, they won't, and Moody's looks at ring fencing as well.

MR. JOHNSON:
Q. Now, Ms. McShane, if we could turn then to another topic, and that is the risk free rate. Ms. McShane, in your introduction yesterday, you indicated that with respect to your equity risk premium test, all three are based on a forecast long term Canada bond yield of 4 1/4 percent, that's the risk free rate?
MS. MCSHANE:
A. It is.
MR. JOHNSON:
Q. And I believe Dr. Booth uses 4.50 percent as his risk free rate for the test year forecast?
MS. MCSHANE:
A. I believe that's right.
MR. JOHNSON:
Q. Okay, and I take it from your introduction yesterday that you really don't take issue with Dr. Booth on that point?
MS. MCSHANE:
A. No, I wouldn't take issue with that.
MR. JOHNSON:
Q. Now at page 42 of your pre-filed evidence is where you address the risk free rate, and you also refer in this paragraph that starts at

line 1040 to a gradual upward trend toward the forecast yield expected to prevail over the longer term of approximately 5 1/4 percent, which is noted there, and I'm just curious, what's the relevance of the forecast of 5 1/4 percent?
MS. MCSHANE:
A. The relevance, in part, is to -- what one can reasonably expect the market risk premium to look like over the longer term.
MR. JOHNSON:
Q. Okay, but just to be clear, that's not what you're saying it should be for the test year?
MS. MCSHANE:
A. No.
MR. JOHNSON:
Q. Okay. Does it have any relevance to your recommendations to the Board?
MS. MCSHANE:
A. Yes.
MR. JOHNSON:
Q. In terms of your number?
MS. MCSHANE:
A. Yes.
MR. JOHNSON:

Q. What's that relevance?
MS. MCSHANE:
A. The relevance is to my estimation of the market risk premium.
MR. JOHNSON:
Q. All right. Now you recall my asking you yesterday, Ms. McShane, about the returns that Newfoundland Power had sought in previous GRAs as compared to your recommendations?
MS. MCSHANE:
A. I remember that, yes.
MR. JOHNSON:
Q. Okay, and for that purpose, could I draw your attention to Consent #14. We won't go there right away, but you'll have it handy, and I think you were accepting yesterday, subject to check a few things, I had indicated to you that in 2007 that they had asked for 10 1/4 percent, and you said that you'd accept that subject to check, it seems a little bit low. Have you checked it?
MS. MCSHANE:
A. No, sorry, I didn't.
MR. JOHNSON:
Q. I checked it again, and it is so that way.

Then I also yesterday said that your recommendation in 2007, your May evidence was 10 1/4 to 10 1/2. Is that accurate?
MS. MCSHANE:
A. I didn't check, but I wouldn't -- I'm happy to accept that still, subject to check.
MR. JOHNSON:
Q. And in May of 2007, your evidence was built on a risk free rate of 4.75 to 5 percent, and that shows up in the table of recommendations in Consent #14?
MS. MCSHANE:
A. Sorry, what is Consent #14?
MR. JOHNSON:
Q. I'm sorry.
KELLY, Q.C.:
MR. JOHNSON:
Q. Perhaps the witness could be provided that.
MR. JOHNSON:
Q. Yeah.
MS. MCSHANE:
A. Sorry, did you ask me a question that I didn't answer yet?
MR. JOHNSON:
Q. Yeah. In May of '07 when you filed your pre-

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filed evidence, your risk free rate at page 3, just for the record in your report, was 4. 75 to 5 percent?

MS. MCSHANE:

A. Yes.

MR. JOHNSON:

Q. So you see what I've done with your recommendations. I have your ' 02 recommendations which is for the GRA that led to PU 19. Then I have 2007, then I have 2009, okay.

MS. MCSHANE:

A. I see those.

MR. JOHNSON:

Q. Okay, and then -- so when we spoke yesterday of what Newfoundland Power sought in 2003, and just for the record and clarification of the Commissioners, this does not include what they sought, this just includes the witness' recommendation and her risk free rate, but when we spoke of PU 19, 2003, we saw that the Board's decision showed that they had proposed 10.75 percent in 2003, correct?

MS. MCSHANE:

A. That's what you said to me and you showed me

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the decision, and I have no reason to question it.

MR. JOHNSON:

Q. Okay, and do you recall yesterday that when we went to that Board decision, the Board had you down at page 47 as recommending 11 1/2 to 3/4. That was from yesterday. Do you recall that we went, Ms. McShane, yesterday to the actual extract of the Board's decision in PU 19, where they showed --

MS. MCSHANE:

A. Yes.

MR. JOHNSON:

Q. Mr. Moran --

MS. MCSHANE:

A. Yes, sir.

MR. JOHNSON:

Q. Remember that?

MS. MCSHANE:

A. Yes. So the line here on Consent 14 that says 11 1/2 to 12, how does that relate to the 11 1/2 to 11.75?

MR. JOHNSON:

Q. Well, actually, this is where I was going, because I checked your report which is filed

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in this proceeding, the '02 report which is filed, and at page three, if you could go to it --

KELLY, Q.C.:

Q. Which document?

MR. JOHNSON:

Q. That would be one of the information items, I think.

KELLY, Q.C.:

Q. Consent 3.

MS. GLYNN:

Q. That's Consent #3.

MR. JOHNSON:

Q. Consent 3. Yes, page 3 of 67.

MS. MCSHANE:

A. I see that, yes.

MR. JOHNSON:

Q. Yeah, that would be line 7 and 8, your recommendation was 11 1/2 percent to 12 percent?

MS. MCSHANE:

A. Right.

MR. JOHNSON:

Q. Whereas yesterday we thought it was 11 1/2 to 11 3/4, okay.

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MS. MCSHANE:

A. It is possible that it was updated from this report, and that's why the decision reflects a somewhat different number.

MR. JOHNSON:

Q. Yes, indeed, and again in this decision at page 44 that we have before us now, we see your risk free rate at line 21.

MS. GLYNN:

Q. Do you want the decision or continue in the pre-filed evidence?

CHAIRMAN:

Q. You said decision. You mean report?

MR. JOHNSON:

Q. Her report, I'm sorry, terribly sorry.

MS. GLYNN:

Q. Okay, yeah, so the same report that we just had up there?

MR. JOHNSON:

Q. Yes, I'm sorry.

MR. HAYES:

Q. What page was that?

MR. JOHNSON:

Q. Page 44, line 21, that's where you used a 6 percent risk free rate in that evidence, correct?

MS. MCSHANE:

A. Yes.

MR. JOHNSON:

Q. And that's borne out in the table under the risk free rate for 2002, just to confirm that we're being accurate there. Okay, now if you look at your sheet, Ms. McShane, of Consent #14 sheet. I just want to go down a few things with you. You'll note under the risk free rate column that in 2002, you had the risk free rate at 6 percent, and to -- by the time we got to 2007, your estimate of the risk free rate had dropped for that case to 4.75 to 5. So a drop in the risk free rate of 100 to 125 basis points, correct?

MS. MCSHANE:

A. Yes.

MR. JOHNSON:

Q. And your recommended ROE also dropped from what it had been in 2002 to 2007, and it also had dropped by 125 to 150 basis points, right?

MS. MCSHANE:

A. It had.

(10:30 a.m.)

MR. JOHNSON:

Q. And now the way our AAF operates is that as the long bond yield decreases, the risk premium increases by 20 percent of that decrease, right?

MS. MCSHANE:

A. That's the way it works, yes.

MR. JOHNSON:

Q. So if you take a drop, and let's say you take a drop for math purposes of 150 basis points in the risk free rate, you take 20 percent of that 150 basis points, which would be then added to the risk premium, so you'd have a 30 basis point addition to the risk premium, right?

MS. MCSHANE:

A. Right, under that formula, yes.

MR. JOHNSON:

Q. Under that formula, okay, but we see from Consent #14 that the risk premium actually came down from 2002 to 2007, because it had been 5.50 to 6, and by 2007, it was at 5.50, right?

MS. MCSHANE:

A. Yes. I mean, that's true that the difference

between the recommended ROE and the long term Canada forecast at the time was that amount, but those numbers in each of those two cases are not based solely on an equity risk premium test. They're based on a number of tests, and so if you're looking at 2007, which, of course, the evidence would have been prepared prior to May, 2007, we were in a period at that time of relatively low cost of capital, very stable markets. This recommendation would have been based, in part, on the discounted cash flow test, and those numbers at the time were likely to have been considerably lower than they had been in 2002 and what they would be today.

MR. JOHNSON:

Q. Well, Ms. McShane, it's fine to look at it that way, but what I see is that from -- we had a significant drop from '02 to '07 in the long Canada, and then from 2007 to 2009, we've had a very much smaller drop, but then look what happens to your risk premium in 2009?

MS. MCSHANE:

A. I guess, my point is the cost of equity is not just the risk premium approach, and it's not

only based on what happens to the long term Canada bond yield. That's one factor, but it's certainly not the only factor. You have to look at the conditions in the market at the time you do our cost of equity test, all of them.

MR. JOHNSON:

Q. Okay. Well, yesterday you talked about an adjustment that you had made to your recommendation, right, an adjustment -- when Mr. Kelly was asking you about, Ms. McShane, do you wish to make any adjustments, and you said you did.

MS. MCSHANE:

A. Oh, sorry, yes, in my update, yes.

MR. JOHNSON:

Q. In your update, right?

MS. MCSHANE:

A. Yes.

MR. JOHNSON:

Q. And what was that adjustment?

MS. MCSHANE:

A. There was an adjustment for the change in the spreads between A rated bond yields and the long term Canada bond yield.

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MR. JOHNSON:
Q. Okay, and that information has to do with the second version of your DCF-based equity risk premium test, right?
MS. MCSHANE:
A. Yes, it does.
MR. JOHNSON:
Q. And as you know, that's the one that's based on the long term Canada bond yields and the A rated utility spreads, that's the test we're talking about. So as I understand it, at the end of March spreads between yields on a sample of A rated Canadian utility bonds, and the 30 year Government of Canada Bond, was about 345 basis points?
MS. MCSHANE:
A. I think that's right, yeah.
MR. JOHNSON:
Q. And at the time you prepared your evidence, you believed the spread would be 225 to 250 basis points?
MS. MCSHANE:
A. I thought it would drop, yes, because the 345 was very high.
MR. JOHNSON:

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Q. And again that was assuming a risk free rate of 4 1/4?
MS. MCSHANE:
A. Correct.
MR. JOHNSON:
Q. But spreads have gotten smaller now to what you anticipated? They're now down to about 170 basis points?
MS. MCSHANE:
A. That's right.
MR. JOHNSON:
Q. Okay, and could you just then turn to your Schedule 12 in your evidence, Ms. McShane.
MS. MCSHANE:
A. I have that.
MR. JOHNSON:
Q. And page 2 of 2.
MS. MCSHANE:
A. I have that.
MR. JOHNSON:
Q. I think that the Equation 2 --
MS. MCSHANE:
A. Yes.
MR. JOHNSON:
Q. Would relate to this discussion that we're

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having?
MS. MCSHANE:
A. Yes, it does.
MR. JOHNSON:
Q. Okay, and just walk us through how we can understand Equation 2 in the context of this particular equity risk premium test?
MS. MCSHANE:
A. What this is saying is that the equity risk premium is equal to effectively a constant, in this case 4.97, less 42 percent of the 30 year Government Bond yield, plus 1.23 times the spread between utility bond yields and the Government Bond yield.
MR. JOHNSON:
Q. Okay, let's just stop here for a second. Where does the 4.97 number fall out of?
MS. MCSHANE:
A. Where does it fall out of?
MR. JOHNSON:
Q. Yeah, where do we get it?
MS. MCSHANE:
A. It falls out of, if you do an analysis of -- a regression analysis of the relationship between equity risk premiums that have been

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constructed monthly using a discounted cash flow approach, less the corresponding long term Government Bond yield. You regress that against the corresponding 30 year Government Bond yield and the spread between utility bond yields and the Government Bond yield each month, and you get this relationship.
MR. JOHNSON:
Q. Okay. So in the parenthesis where it says "spread", that number used to be -- when you filed your report, that number was what?
MS. MCSHANE:
A. 225 to 250 basis points.
MR. JOHNSON:
Q. Okay, so you took an average between those two and then multiplied it by the 1.23?
MS. MCSHANE:
A. I did.
MR. JOHNSON:
Q. Okay, and so when you did that, what equity risk premium did you come up with?
MS. MCSHANE:
A. 6.1.
MR. JOHNSON:
Q. And that's what we see at the bottom there?

MS. MCSHANE:
A. Right.
MR. JOHNSON:
Q. Okay, and then if -- because the spread has fallen to 170, you would multiply the 123 by 170 now?
MS. MCSHANE:
A. I did. That's what I did in the update.
MR. JOHNSON:
Q. In the update, and that number which used to be 6.1 is now?
MS. MCSHANE:
A. 5.3.
MR. JOHNSON:
Q. As the equity risk premium?
MS. MCSHANE:
A. Right.
MR. JOHNSON:
Q. Yes. Now let's say that the spread hadn't improved and, in fact, had gotten worse, had gotten larger, so as opposed to it being 225 to 250, let's say it had gone up to 350 basis points, okay, Ms. McShane --
MS. MCSHANE:
A. Yes.

MR. JOHNSON:
Q. What would the equity risk premium then be under this approach?
MS. MCSHANE:
A. I don't know. I don't have my calculator and I haven't done that calculation. I was told never to bring a calculator into the hearing.
MR. JOHNSON:
Q. Okay, I've got a calculator here. Could you do that for us?
MS. MCSHANE:
A. Yes, sure.
KELLY, Q.C.:
Q. If the consumer advocate wants the witness to do that math, that's a matter that can be provided in an undertaking. If he's got the answer already worked out, it can be given subject to check.
MR. JOHNSON:
Q. I think it's pretty straightforward, though.
MS. MCSHANE:
A. That's assuming I can use this calculator, yeah.
MR. JOHNSON:
Q. If I can, I'm sure you can.

MS. MCSHANE:
A. How do I get the number on here? Oh, I've got to push the "on" button, okay.
MR. JOHNSON:
Q. Well, Mr. Kelly, let her do it, and she can do it subject to check, and if there is a change, she can let us know.
MS. MCSHANE:
A. Sorry, what was the spread you wanted me to use?
MR. JOHNSON:
Q. Let's say that the spread had gone up to 350 basis points by the time of this hearing.
MS. MCSHANE:
A. I think it's 7.5, if I did it correctly.
MR. JOHNSON:
Q. 7.33?
MS. MCSHANE:
A. Okay, well --
MR. JOHNSON:
Q. Would that be --
MS. MCSHANE:
A. That's fine.
MR. JOHNSON:
Q. No, no, I'm sorry -- what did you think it was?

MS. MCSHANE:
A. I said 7.485.
MR. JOHNSON:
Q. Okay, 7.485, subject to check, okay. In that instance, could you let us know, and I don't expect you to be able to do that now, but could you let us know what your recommended ROE for Newfoundland Power would be under your way of assigning weights in that instance? Let us know, in other words, Ms. McShane, how it would change the recommendation that you had in your evidence as filed to what it would be if the bond spread had, in fact, gone up?
MS. MCSHANE:
A. So if it had gone up from 6.1 to -- that one test had gone up from 6.1 to 7?
MR. JOHNSON:
Q. To 7 whatever.
MS. MCSHANE:
A. Okay, I can let you know that.
MR. JOHNSON:
Q. Okay. Well, Ms. McShane, as we know, the effect of the narrowing of the bond spread would have brought the equity risk premium

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down to 5.3 percent under this test, but what effect did it have on your overall ROE recommendation for Newfoundland Power?

MS. MCSHANE:

A. None, because it was only -- it changed the overall recommendation, or the overall estimate by 5 basis points. So, I mean, if you look at the change that we're talking about here, the example you gave me, it would have approximately the same effect in the other direction. So it shouldn't change the recommendation there either. I mean, this is just one way of looking at what the change in the cost of equity would have been, and in the situation you gave me, I mean, these are quite extreme market conditions.

(10:45 a.m.)

MR. JOHNSON:

Q. Ms. McShane, the reason that it has basically no impact upon your recommendation is because that's the weighting you give to it in your --

MS. MCSHANE:

A. Right.

MR. JOHNSON:

Q. Okay, and -- but at the end of the day, it's

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your ROE recommendation that we're concerned about, though, isn't it?

MS. MCSHANE:

A. Yes.

MR. JOHNSON:

Q. And it just occurs to me that given what we've heard about, you know, what these spreads would indicate, Ms. Perry talked about the concern of the spread in her evidence, and it just occurs to me, Ms. McShane, that the spreads between the risk free rate and these A bonds doesn't seem to have a lot to do with your recommendations?

MS. MCSHANE:

A. It has something to do with it, but the cost of capital or cost of equity that I estimated is based on a number of tests, only one of which involves the consideration of the utility spreads.

MR. JOHNSON:

Q. Would it be fair to say that your overall opinion is rather insensitive to the spreads, once you size it up, once you wash it through your weighting scheme?

MS. MCSHANE:

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A. In this -- yeah, I mean, I think that's fair to say that it's not that sensitive to the spreads and it's sensitive to the changes in the DCF cost, which are -- you know, have a tendency to follow the spreads. So independently, I would agree with you that it's not specifically very sensitive to that one factor, but the recommendation is sensitive to overall changes in the cost of equity.

MR. JOHNSON:

Q. Ms. McShane, in your report at page 13, you have a Figure 2 of the Montreal Exchange Implied Volatility Index.

MS. MCSHANE:

A. Yes.

MR. JOHNSON:

Q. And I understand your report to say that the volatility index averaged over 40 in the first quarter of 2009, you say?

MS. MCSHANE:

A. I did.

MR. JOHNSON:

Q. And what level is it now, Ms. McShane?

MS. MCSHANE:

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A. About 22.

MR. JOHNSON:

Q. About 22. Had it been lower than 22 in recent times?

MS. MCSHANE:

A. It averaged 15. As you can see on lines 319 to 320, it was in the range of 8 to 24 during much of 2002 to 2007, averaging --

MR. JOHNSON:

Q. I'm sorry, Ms. McShane, I missed -- that's not what I was getting at.

MS. MCSHANE:

A. Oh, sorry.

MR. JOHNSON:

Q. Had it been lower than 22 since you filed your evidence?

MS. MCSHANE:

A. Oh, I haven't looked. It may have been, yes. I haven't looked at each individual number.

MR. JOHNSON:

Q. Weren't you asked about this in the recent Terasen Gas matter?

MS. MCSHANE:

A. You mean in cross-examination?

MR. JOHNSON:

Q. Yes.
MS. MCSHANE:
A. Could have been.
MR. JOHNSON:
Q. Would you take, subject to check, that you confirmed that it was 18 at the time of your testimony?
MS. MCSHANE:
A. I would agree that it could have been there, yes. I don't recall the specific number that was prevailing at the time I testified.
MR. JOHNSON:
Q. Fair enough. You testified the 30th of September?
MS. MCSHANE:
A. I did.
MR. JOHNSON:
Q. Okay. As regards the risk premium, Ms. McShane, your report at page 47 --
MS. MCSHANE:
A. Yes, I have that.
MR. JOHNSON:
Q. It speaks of the historic risk premiums as compared to Canada and United States, and I guess historically we've always had a lower

risk premium on average, I take it, than the Americans?
MS. MCSHANE:
A. You have.
MR. JOHNSON:
Q. And I note in Schedule 8 to your evidence, I don't think there's a need to go there, but you refer to Ibbotson Associates. They publish risk premium data on the United States and other countries, do they not?
MS. MCSHANE:
A. They do.
MR. JOHNSON:
Q. And do they not publish risk premium studies on a whole host of different countries?
MS. MCSHANE:
A. I believe so.
MR. JOHNSON:
Q. Like, you know, England, Canada, et cetera, et cetera?
MS. MCSHANE:
A. Yes.
MR. JOHNSON:
Q. And so it's recognized from country to country there are different risk premiums to be

expected, is that -- would that --
MS. MCSHANE:
A. There are different risk premiums that would be expected to be observed historically.
MR. JOHNSON:
Q. Yes.
MS. MCSHANE:
A. And, sure, there would be some expectation going forward that they would be different based on different risks in different countries.
MR. JOHNSON:
Q. Yes, and in terms of the United States experience, that has been from '47 to '08, one of the most robust in the world, is that right?
MS. MCSHANE:
A. It was a relatively robust economy, yes.
MR. JOHNSON:
Q. Now you say in your evidence that the indicated equity market risk premium, using your risk adjusted equity market risk premium test, is approximately 6 3/4 percent?
MS. MCSHANE:
A. Yes.

MR. JOHNSON:
Q. You say that at page 50, right?
MS. MCSHANE:
A. I do.
MR. JOHNSON:
Q. And, Ms. McShane, Dr. Booth provides in his evidence at page 48 and 49, information pertaining to what others were saying at the height of the financial crisis about the market risk premium. You're familiar with his reference to a finance -- a survey of finance professors?
MS. MCSHANE:
A. I'm familiar with his survey of finance professors. I'm not sure that's what they were saying at the height of the financial crisis.
MR. JOHNSON:
Q. Okay, I understand that this -- let me just get the hard copy. I'm referring to line 15 of Dr. Booth's Report, on page 48. That's where he said -- yeah, "at the height of the financial crisis, Professor Fernandez surveyed finance professors around the world to find out what they use for their market risk

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premium". That's the table that we're talking about, and if you'd look at the table, Ms. McShane, you'll see in the United States there were 487 finance professors surveyed, and their average risk premium in the United States would be 6.3 percent, right?
MS. MCSHANE:
A. I see that.
MR. JOHNSON:
Q. Their median would be 6 percent?
MS. MCSHANE:
A. I see that.
MR. JOHNSON:
Q. And the other things there are self-explanatory, that's fine. In Canada, there was 29 finance professors surveyed. You see what they put as the average?
MS. MCSHANE:
A. I see that.
MR. JOHNSON:
Q. 5.4 percent. The median was 5.1 percent, right?
MS. MCSHANE:
A. Yes.
MR. JOHNSON:

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Q. And so if you'll just go to the next page, what Dr. Booth did was he graphically represented the 29 finance professor's responses, right?
MS. MCSHANE:
A. He did.
MR. JOHNSON:
Q. And in terms -- you would be, I take it -- you see those three bubbles on the second line from the top?
MS. MCSHANE:
A. Yeah, I see those.
MR. JOHNSON:
Q. You would be handy to those people in your equity risk premium?
MS. MCSHANE:
A. Based on this survey, I would be at the upper end of the range.
MR. JOHNSON:
Q. Yes. Where would Dr. Booth be in terms of what he's saying the equity risk premium would be?
MS. MCSHANE:
A. Sort of in the middle.
MR. JOHNSON:
Q. Yeah.

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MS. MCSHANE:
A. With the margin of error.
MR. JOHNSON:
Q. And I take it that you would be -- just going back to the chart on the previous page, you see the median guy in the United States, he would be at 6 percent, right?
MS. MCSHANE:
A. That's what the chart says.
MR. JOHNSON:
Q. You'd be 75 basis points above him, and I take it, you would be 165 basis points higher than the middle guy in the median in Canada?
MS. MCSHANE:
A. I'm higher than the professors who were surveyed, who -- you know, if you look at the entire surveys, a lot of them say they take their numbers out of books or articles. I mean, it's not like they're doing their own research as to what risk premium is, and what I've tried to do in my testimony is develop an estimate of the risk premium based on the data and, you know, looking at what the underlying relationships are.
MR. JOHNSON:

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Q. Now, Ms. McShane, in your arriving at your risk premium, I take it you also have to adjust beta, would that be right? No, I'm sorry, you would apply your adjusted beta to your risk premium?
MS. MCSHANE:
A. I do.
MR. JOHNSON:
Q. Yeah, and the adjustment -- so you take your risk premium of 6.75 percent, right?
MS. MCSHANE:
A. Market risk premium.
MR. JOHNSON:
Q. The market risk premium.
MS. MCSHANE:
A. Right.
MR. JOHNSON:
Q. And then you multiply it by point what?
MS. MCSHANE:
A. 65 to .7.
MR. JOHNSON:
Q. .65 to .70?
MS. MCSHANE:
A. Correct.
MR. JOHNSON:

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Q. So what does that .65 to .70 mean in the real world? What is that number trying to represent?
MS. MCSHANE:
A. It's trying to represent what percentage of the market risk premium utility investors reasonably expect to earn.
MR. JOHNSON:
Q. And that has to do -- how is that a measurer or an indicator of what they expect to earn over the risk free rate?
MS. MCSHANE:
A. I don't understand what you mean, how is that a measure.
MR. JOHNSON:
Q. What insight does the .65 to .70, or for that matter, whatever fraction of the risk premium, what insight does that give us into what the average investor in utility would expect to earn?
MS. MCSHANE:
A. It gives us an estimate of the expected return on equity. I mean, you look at the market risk premium, a relative risk adjustment to that, add the risk free rate, add adjustment

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for financing flexibility, and you have an estimate of the cost of equity.
MR. JOHNSON:
Q. Okay, but what I'm getting at is if a utility, you say, for Newfoundland Power is .65 to .70, they would only expect 65 to 70 percent of the overall risk premium?
MS. MCSHANE:
A. Oh, right, yes, I'm sorry.
MR. JOHNSON:
Q. And I didn't think about putting those terms to you. So they would expect 100 percent of a risk premium from what sort of companies?
MS. MCSHANE:
A. The average risk company.
MR. JOHNSON:
Q. So whatever is found in the market?
MS. MCSHANE:
A. Sure, but it's also -- I mean, it's a diversified portfolio of companies.
MR. JOHNSON:
Q. Okay. Now to get to .65 to .70, that beta number doesn't just fall out, it has to be adjusted to get to .65 to .70?
MS. MCSHANE:

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A. It's based -- yes, effectively, if you view it in terms of beta, yes, it's conceptually a raw beta adjusted.
MR. JOHNSON:
Q. Okay, the raw beta that you arrived at for the purpose of your analysis was what?
(11:00 a.m.)
MS. MCSHANE:
A. I don't really have a raw beta per se. I mean, I develop the relative risk adjustment based on a number of factors, including raw beta, but if you look at the evidence as far as where the actual raw betas are produced, you can see some of them sitting at Tab 8 on page 54. So those would be the recent raw betas observed, co-variability of stock prices of Canadian utilities, but the median being .47.
MR. JOHNSON:
Q. Okay, and so would that be the number that you worked off, the .47?
MS. MCSHANE:
A. That would be one of the numbers I worked off of.
MR. JOHNSON:

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Q. Were there numbers lower than that that you worked off of?
MS. MCSHANE:
A. They have been numbers that are lower than that, yes.
MR. JOHNSON:
Q. For the purpose of this case?
MS. MCSHANE:
A. There are -- if you look at Schedule 11, page 3 of 3, which basically gives you a history of betas for regulated Canadian utilities, I mean, all of the numbers you could view as being in some sense relevant to the consideration of what the relative risk adjustment is. The ones that are in Table 8 happen to be the most recent ones, and they were there, in part, to show what the relationship was between raw beta and what a large firm which produces betas showed at the same time what the adjusted betas were.
MR. JOHNSON:
Q. And just to get this clarified, the term "raw", is that a term of art or --
MS. MCSHANE:
A. Probably not. It's probably a McShane term.

MR. JOHNSON:
Q. Okay.
MS. MCSHANE:
A. All it really means is that it is the observed regression coefficient obtained by regressing the change in stock price for the utilities against the change in stock price for the composite index.
MR. JOHNSON:
Q. Just one more question before the break. The use of adjusted betas, Ms. McShane, I think your reply to CA-NP-16H, where we asked for you to provide citations to any and all Canadian regulatory decisions that have approved the use of adjusted betas by squashing them with 1.0 as indicated on page 54. That's the reply there that we can read it, that you're not aware of any Canadian decisions which have specifically relied on the adjustment methodology?
MS. MCSHANE:
A. No, I'm not.
MR. JOHNSON:
Q. Okay. Ms. McShane, those are my questions for now. I think I might have one or two after

the break.
(11:05 a.m.)
CHAIRMAN:
MR. JOHNSON:
Q. Okay, we'll take a break then, 30 minutes.
(RECESS)
(11:35 a.m.)
CHAIRMAN:
Q. Back to you, Mr. Johnson. I think that's correct, is it?
MR. JOHNSON:
Q. Mr. Chairman, I have no further questions for Ms. McShane.
CHAIRMAN:
Q. All right, then I thin it's Mr. Simmons.
MR. SIMMONS:
Q. Thank you, Mr. Chairman.
MS. KATHLEEN MCSHANE - CROSS-EXAMINATION BY MR. SIMMONS:
MR. SIMMONS:
Q. Ms. McShane, I won't be very long with you. I'm not going to ask you any questions concerning your recommendations on the return on equity for 2010. You've covered that thoroughly in your report, and Mr. Johnson has been thoroughly over it with you. My

questions are going to be limited to the Automatic Adjustment Formula, and as I read your report, there are two principal comments that you've made about the use of the Automatic Adjustment Formula, and the first one that I wanted to ask you about is your conclusion that it would be inappropriate to use the Automatic Adjustment Formula, given the current economic conditions, and if I understand correctly, that's based in large part on the fact that the Automatic Adjustment Formula, if applied in 2010, would result in a decrease in the return on equity for Newfoundland Power at a time when the cost of equity is actually rising in the market. Have I got that right?
MS. MCSHANE:
A. Well, I think that that's largely true, that what we've seen is the Automatic Adjustment Formula producing numbers that are inconsistent with the relative trends in the cost of equity and the yield on long term Canada bonds. Also I would add to that that the formula as constructed overstates the relationship between long term Canada bonds

and the cost of equity. So both of those situations together suggest that the formula probably should be suspended for the time being, set a cost equity today, and then perhaps go back in the future and look at what an appropriate formula might be, if it's determined that regulatory efficiency supports putting a formula back in place.
MR. SIMMONS:
Q. Uh-hm. So the two issues you've identified then are that you view the formula has being too sensitive to changes in the Long Canada Bond yield, so that it moves rates more than is necessary to account for changes in the equity markets?
MS. MCSHANE:
A. Correct.
MR. SIMMONS:
Q. And that's -- if I'm correct, that's kind of a longer term criticism, that's something you've been saying about the formula before there was the current market conditions that have affected returns on equity?
MS. MCSHANE:
A. True, I have said that before, and the more

evidence that we have, with hindsight, shows that to be true. I think that's also consistent with what Mr. Cicchetti said in his responses to RFIs, that his analysis shows a much less or lower sensitivity between Long Term Government Bond yields and the utility cost of equity, and as you suggested also, the fact that we've observed the formula producing values that are inconsistent with the relative trends in cost of equity and yield.

MR. SIMMONS:

Q. And when you say "inconsistent with the relative trends of cost of equity", I understood you before to say that the rates set using the Automatic Adjustment Formula would actually move in the opposite direction to those trends?

MS. MCSHANE:

A. Correct.

MR. SIMMONS:

Q. And that is a new effect that's been observed under the market conditions in the last year and a half or so, is it, compared to the operation of the formula prior to that?

MS. MCSHANE:

A. I think it was highlighted as a result of those conditions. If you went back, there may have been other situations in which the same phenomenon was observed, but not to the extent.

MR. SIMMONS:

Q. But not to the extent where it would have the same effect on a company as you're arguing that the effect would be now?

MS. MCSHANE:

A. Correct.

MR. SIMMONS:

Q. Okay, so when we talk about suspending the Automatic Adjustment Formula, the primary reason for arguing for suspension now is that it is taking rates of return in the opposite direction from what you say the market is suggesting they should be going as opposed to the sensitivity issue?

MS. MCSHANE:

A. I think that's fair to say that that would be the reason for suspending it.

MR. SIMMONS:

Q. Right. If we didn't have the problem with the formula taking rates in the wrong direction,

the criticism of the way it operates then would be this sensitivity issue, and I'm going to suggest that that's something that would be addressed by looking at the formula itself and whether changes needed to be made to it, rather than suspending its operation?

MS. MCSHANE:

A. Agreed.

MR. SIMMONS:

Q. Is that fair?

MS. MCSHANE:

A. Well, yes, and if you're talking about generally suspending the use of a formula at all, then that would be, you know, based on market conditions, and with respect to the specific formula, that would be more based on the underlying assumptions as to the relationships between the cost of equity and the variable that currently underpins it being a long term Canada bond yield.

MR. SIMMONS:

Q. Okay. Now on the question of the sensitivity of the formula, I'm relatively new to this process, and my understanding of the way it works may be oversimplified, but am I correct

that it is the use of the .8 factor in the formula that determines the sensitivity of the rate change compared to the change in the long term Canada bond rate?

MS. MCSHANE:

A. Yes.

MR. SIMMONS:

Q. Okay. And there's no other feature of the formula that affects that sensitivity issue?

MS. MCSHANE:

A. I'm not quite sure what you're getting at.

MR. SIMMONS:

Q. So if you wanted to make the formula more sensitive or less sensitive, I guess -- well, if you wanted to have the formula changed so that it better tracked the actual market effect on the company as opposed to the way you've seen it work in the past, it is that .8 factor that would have to be changed, is it?

MS. MCSHANE:

A. Yes, and you might also consider replacing the long term Canada bond yield with, say, a corporate bond yield which would perhaps better capture changes in the utility cost of equity than the long term Canada bond yield, the risk free rate itself.

MR. SIMMONS:

Q. Okay. So that would be substituting a different measure for the determination of what's the risk free rate?

MS. MCSHANE:

A. No, that would be -- not saying that the corporate bond yield would be an alternative risk free rate, but rather that it would be an alternative variable that could be used to better track the change in the cost of equity.

MR. SIMMONS:

Q. Right. Now referring to .8 factor, in your report you have done some analysis, I think, of the sensitivity. Have you -- are you in an position right now to express any view on what you think would be a more appropriate variable for use in the longer term in an Automatic Adjustment Formula?

(11:45 a.m.)

MS. MCSHANE:

A. I would say something more on the order of .5.

MR. SIMMONS:

Q. Okay.

MS. MCSHANE:

A. Having said that, I should add to that that, of course, if you alter the sensitivity based on the empirical analysis, then you'd also have to simultaneously recognize that you can't simply set the same rate of return on equity that you had in place before because that rate of return on equity would already have taken into account a higher sensitivity than is observed, if you understand what I'm saying. So if you -- say, you started ten years ago and you set the ROE at 11 percent, and you set a formula at the same time which had this .8 sensitivity, obviously now if long term Canada bond yields are lower than they were ten years ago, you've already lowered the ROE by 80 percent of the change in the long term Canada bond yield. So it wouldn't make logical sense to say, okay, well, we'll keep the ROE where it is, but we'll change the sensitivity factor to .5. You would have to recognize that effectively you've overstated the decline in the cost of equity through the operation of the formula to date.

MR. SIMMONS:

Q. Okay, well, I'm not sure I follow completely

there. Are you saying that if you change the way the formula operates so that years after a test year it will change the rates by different amounts than the current formula does, that you would then have to change the return on equity that you set in the test year?

MS. MCSHANE:

A. No, no, maybe I'm not being clear, obviously. What I'm saying is that -- let's put it in the context of what this Board has done, and I apologize, I don't recall exactly the ROE that was initially set back when the Board first adopted the formula, but let's for discussion sake say it was 11 percent ROE. Let's just say also that at the time the underlying long term Canada bond yield was 7. I think that's probably wrong, but it'll serve for discussion purposes. If the formula, which has operated since 1998, has indicated that the ROE should decline by .8 percent of the change in long Canada, so that in 2008 the long term Canada bond yield was 4.6, and the ROE was 8.95, the decline we've seen over the ten year period has reflected a .8 sensitivity factor. If you

agree that the sensitivity factor should be .5, it would be unreasonable, in my opinion, to say, well, then we'll set the ROE again at 8.95, but at the same time adopt a sensitivity factor of .5, because what you've done in the past is over reflect the relationship. I mean, you have to basically re-establish the ROE consistent with the underlying assumptions of the formula.

MR. SIMMONS:

Q. Isn't the effect, though, of having a general rate application and set a new test year to reset the ROE for that test year independently of the changes that have been made under the Automatic Adjustment Formula before that?

MS. MCSHANE:

A. That's true. I mean, that's absolutely right. I mean, I'm not saying that you would just automatically go back and say, oh, it's 11 percent in 1998, and if we'd done the .5 from that timeframe, it would be "x", so we'll set it at "x". I'm not suggesting that at all. I do agree with your suggestion that what the Board needs to do is to re-look at what the ROE should be today based on the facts today.

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MR. SIMMONS:
Q. Right. So if the ROE is set for 2010 based upon the evidence that you present, and the other experts present, and the discretion the Board brings to it, that's done independently of either the operation of the Automatic Adjustment Formula in the past, or what the Automatic Adjustment Formula will do in the future, right?
MS. MCSHANE:
A. It would --
MR. SIMMONS:
Q. It is?
MS. MCSHANE:
A. It would be independent of what its done in the past.
MR. SIMMONS:
Q. Right, and it does not take into account either the effect of the Automatic Adjustment Formula on future rates, assuming that it will be used in the next year or the year after to set rates into the future, is that correct also?
MS. MCSHANE:
A. Well, I guess the two are -- the formula, if

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there were one adopted, is in large part independent of the rebasing, if you will, of the ROE, but presumably, to some extent, the formula that's adopted would recognize what the relationship between the cost of equity and whatever variable you would choose to use as the adjustment is.
MR. SIMMONS:
Q. My understanding of the concept of the Automatic Adjustment Formula is it's meant to be an automatic mechanism to approximate as close as people can predict to what the change in the return on rate base, and, therefore, return on equity would be as if there was a rate application and all the evidence were considered?
MS. MCSHANE:
A. Correct.
MR. SIMMONS:
Q. Okay, and that -- take the .8 factor that's used in it. If that were .3 or .5, or whatever it is, that -- changing it from .8 to a smaller number would have the effect that if long Canada bond yields are dropping, the return on rate base would drop at a lower rate

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if it's .5, than it would if it's .8?
MS. MCSHANE:
A. Correct.
MR. SIMMONS:
Q. Right, which would, to a certain extent, insulate the utility from the effects of the long Canada bond rate dropping on that formula? In other words, they maintain their rates at a higher level as the long Canada bond yield drops if the factor is .5 than they would if it was .8?
MS. MCSHANE:
A. True. The reason I hesitated was when you used the term "it would insulate them from the changes in the long term Canada bond yield". Yes, it would the returns on equity more stable and more consistent with what the trends and the cost of equity are.
MR. SIMMONS:
Q. And conversely, if rates were rising, if the factor is .8, the return on equity -- if long term Canada bond yields are rising, the return on equity will rise faster if the factor is .8 than if it's a lower number, .5 or .3?
MS. MCSHANE:

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A. Yes, it would.
MR. SIMMONS:
Q. So in that scenario, the lower factor works more to the benefit of the rate payer than the higher factor would?
MS. MCSHANE:
A. Yes.
MR. SIMMONS:
Q. By keeping the growth in rates lower?
MS. MCSHANE:
A. I guess, effectively that's true. Again, I mean, I view it as putting in a factor that reflects the observed relationship, but, yes, the effect of rising interest rates would be that the rate payers would see a lesser increase in the cost of equity, return on equity.
MR. SIMMONS:
Q. So in either case, the Automatic Adjustment Formula is meant to be an approximation, to some extent, to try and approximate what the effect of those changes in the rates are, and in order to balance any, I guess, variances between what the Automatic Adjustment Formula determines rates to be, and what would be

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determined if you had a rate case each year, it would seem to me to be important that you would want to maintain that factor consistently over a period of time so that in periods of declining long Canada bond yields, the effects of that would be balanced against the effects in periods of rising long Canada bond yields. In other words, you don't want to change the factor in your Automatic Adjustment Formula too often?

MS. MCSHANE:

A. Oh, I would agree with that. I mean, you want it to be symmetric, and at the same time you want it to be as accurate as possible.

MR. SIMMONS:

Q. Right, symmetric, that's the right word. Now on this particular rate case, there's no application here to actually change the Automatic Adjustment Formula. The request is to suspend it. If in the future the Board needed to look at studying what changes might be useful to make to the Automatic Adjustment Formula, do you have any views on how that should be done, how that process should be undertaken to put the Board in a position to

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make as informed as decision as possible if there were to be changes made to the formula?

MS. MCSHANE:

A. It's not a question I've given a lot of thought to, but I would point to an example of a situation in which this very circumstances occurred. The California Public Utilities Commission used to conduct an annual cost to capital review for all the utilities in its jurisdiction, and I think they got tired of that, so they decided that they would adopt an Automatic Adjustment Formula, and essentially what they did was they adopted -- they had their regular proceeding where they adopted the cost to capital for a particular test year, and then they had a separate shorter proceeding where they looked specifically at recommendations for the Automatic Adjustment Formula. I think you could do that where you set the cost to capital today for Newfoundland Power for 2010, and perhaps it would work for 2011 and 2012, but if the Board decided that it wanted to or it was efficient to adopt a formula again, then it could have a short proceeding dealing only with the Automatic

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Adjustment Formula.

MR. SIMMONS:

Q. Now we're still in this period of uncertainty in the markets that's been prevailing for the last year and a half or so. Do you have any views on whether this is the right time to actually be looking at changes in the Automatic Adjustment Formula, or whether it would be better to wait until you see what finally happens with the markets once they subside and some equilibrium develops again?

MS. MCSHANE:

A. Well, of course, we don't know when that will be, but I would say that there is no great rush to adopt a formula immediately. I mean, I think you could, you know, wait at least a year to see how conditions in the market develop, and then look at whether there is a good replacement formula. I know that in the case of Terasen Gas, which has recently gone through a cost to capital proceeding, and they recommended to their regulator that they suspend the use of the formula for now and told their regulator that they would come back with a proposal for a formula in the future,

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hopefully in time, I believe, for 2011, and that they were taking note of what was going on in front of our regulatory boards, such as the Alberta Utilities Commission, the Ontario Energy Board, Quebec, and thought that as a result potentially of those proceedings that there might be some additional information that they could bring to bear for the future development of an appropriate formula. So I think there are these other proceedings going on and there may well be some indication of what might be a reasonable replacement formula.

(12:00 p.m.)

MR. SIMMONS:

Q. Thank you, Ms. McShane. Mr. Chair, I've got a note that the transcription missed the first portion of my examination of Ms. McShane. I don't know what we want to do about that, if the panel are satisfied with what you heard and our own notes, or if it's necessary to go back over any of the first couple of questions.

CHAIRMAN:

Q. I don't think.

MR. SIMMONS:
Q. No, okay. Thank you, Ms. McShane, I don't have anything further for you.
CHAIRMAN:
Q. Do you have anything by way of --
KELLY, Q.C.:
Q. I have a couple of questions arising, if I might, Mr. Chairman.
MS. KATHLEEN MCSHANE - RE-EXAMINATION BY KELLY, Q.C.:
KELLY, Q.C.:
Q. Ms. McShane, we spent a lot of time looking at some US utilities and you've explained in your answers for Mr. Johnson that what we're really looking at is relative comparables from an investment point of view for an equity investor. Can I -- just to follow along a little bit with that, Mr. Johnson asked you a number of questions about Standard & Poors, and Moody's, and we have now undertaken to fulfil that. Do you have that document?
MS. MCSHANE:
A. Yes, I do.
KELLY, Q.C.:
Q. Okay. Mr. Chairman, I don't know whether that's on the screen or not. There we go. Now

there are a group of utilities beginning with Atlantic City Electric, Central Maine Power, Connecticut Light and Power, Fortis Alberta, Orange & Rockland Utilities, and PPL Electric Utilities Corporation. Can you just tell the Board how many of those are US utilities?
MS. MCSHANE:
A. Five of the six.
KELLY, Q.C.:
Q. Fortis Alberta is the only Canadian utility in that list?
MS. MCSHANE:
A. That's correct.
KELLY, Q.C.:
Q. Okay, and just explain for the Board, like, what's the relationship of these particular companies to the US utilities, for example, that you've used in your analysis, and the ones that Mr. Johnson took you through? For example, we heard Orange & Rockland related to Consolidated Edison. Can you just explain that relationship for these to the Board?
MS. MCSHANE:
A. Each of these utilities which Moody's has determined comparable to Newfoundland Power

are operating subsidiaries of US utilities. None of these are independently -- none are these are traded companies. So we wouldn't be able to use any of these specific companies in a cost of equity analysis because they don't have their own equity market data. Some of them might appear in a sample of companies that you would use as a proxy because they're part of one of the publicly traded companies. So Orange & Rockland Utilities, for example, is a part of Con Edison, which was one of the companies that I used in my sample. Central Maine Power actually is now a subsidiary of a spanish company, Iberdrola, so they're not really one you would consider putting in a cost of equity proxy group. Connecticut Light and Power is a subsidiary of North East Utilities. PPL Electric Utilities is a subsidiary of PPL Corporation, and those would be companies you might consider for a comparable proxy group. I did not include them in my proxy groups because the parent company has investment characteristics which I would consider to be of higher risk than Newfoundland Power.

KELLY, Q.C.:
Q. Thank you, Ms. McShane. One other area I just want to follow up on. Mr. Johnson prepared a table which was Consent 14, and you explained as you went along that your ROE recommendation contained on that table, the recommendations over time, were based on a number of tests, as you had explained earlier. Then he had you do some calculations with respect to one particular test, and, Mike, can you put Consent 2 up on the screen, and this is the update that you filed to your evidence. If I take you down to the bottom of that, Ms. McShane, you explained that the weighting that this particular version of an equity risk premium test has had on your analysis, and first of all, can you just explain that to the Board, and my follow on question just to give it to you all the one time is has that weighting stayed the same over time as we've looked at from 2002 to 2009?
MS. MCSHANE:
A. In terms of the first part of your question, I have a number of tests, three equity risk premium tests and discounted cash flow tests,

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three different models, and comparable earnings. Among the risk premium tests is one that basically has two versions, of which the version that's referred to in the update is one of those two. So based on the various weights that I've given to the test, the change as reflected in the update, makes a very small difference in the cost of equity estimate. The weight that I've given to that test, as with the weights that I've given to all of the other tests, has not changed since 2002.

KELLY, Q.C.

Q. And could you just confirm for the Board that this is the test that Mr. Johnson asked you to do the calculations in relation to?

MS. MCSHANE:

A. That's exactly right, it is that test.

KELLY, Q.C.

Q. Thank you. Thank you, Mr. Chairman. Those are my questions.

CHAIRMAN:

Q. I just had one question arising out of it. If two utilities, you know, with different sizes and revenue streams, et cetera, et cetera, had

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the same bond rating, does that tell a bond investor that he can be indifferent with respect to which one he could invest in or should invest in? What does it say?

MS. MCSHANE:

A. It says that, from a bond investor's perspective, that there is a relatively similar probability that the utility will not default on its obligations. When a bond rater looks at a company, they're going to look at the business risk and they're going to look at the financial risk. So the bond rating reflects a composite of the bond rater's view as to the combination of those risks. To some extent, the bond rater's views will be different from the equity investor's view, since the equity investor is the residual recipient of the cash flows. So the bond rating is not a determinative measure of the relative risk to an equity investor. It's one indicator. There may be differences between how the debt rating agencies look at the risk and how the actual bond investors view the risk. So you may well see utilities that have the same bond rating, but the market is going

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to interpret the risk themselves, and you may well see a company that has an A rating have a cost of debt that's, you know, 25 basis points lower or higher than another utility with the same bond rating. So it's a--the bond rating is sort of one measure, but not the only measure.

CHAIRMAN:

Q. So I don't know whether you answered me. Is it yes or no? I have no idea. It's complicated. So from the--but it is an indication from the perspective of somebody who's going to buy bonds?

MS. MCSHANE:

A. Yes, it is, for sure.

CHAIRMAN:

Q. Okay. Now, just take me from that then, what does it say? What does that rating for these two companies say to an equity investor? You said it's an indicator, but there are others.

MS. MCSHANE:

A. It would be one of -

CHAIRMAN:

Q. Just flesh that out for me now.

MS. MCSHANE:

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A. Okay. So the bond rating would be one indication. Other indications would be if you looked at the Betas of the firm, so are they relatively similar from an equity--that would be one thing that an equity investor would look at. They would look at the price to earnings ratios of the company. Are investors willing to pay more for a given stream of earnings? So if you had two companies with utilities with very different price earnings ratios within the same industry, the company with the lower price earnings ratio or a lower market to book ratio might be viewed as riskier than a company with a higher PE ratio or a higher market to book ratio.

CHAIRMAN:

Q. And none of those factors will be taken into account by the bond rater?

MS. MCSHANE:

A. The equity -

CHAIRMAN:

Q. In the initial exercise to determine the -

MS. MCSHANE:

A. No, they would not be focused on those equity market indicators. They would be focused simply on those cash flows or the outlook for the cash flow.

CHAIRMAN:

Q. After the bonds are -

MS. MCSHANE:

A. Exactly.

CHAIRMAN:

Q. Okay, okay, thank you. All right. I guess we're back to you, are we, sir? I think, are we finished with -

KELLY, Q.C.

Q. Yes, Ms. McShane can step down and -

CHAIRMAN:

Q. Yes, thank you very much.

KELLY, Q.C.

Q. The next witness, Mr. Chairman, will be the Consumer Advocate's witness, Dr. Booth.

CHAIRMAN:

Q. Okay.

KELLY, Q.C.

Q. While they're all here for the cost of capital testimony.

CHAIRMAN:

Q. Oh, okay. Yes, sure, yeah, all right.

MR. JOHNSON:

Q. Just for clarification, what we've done, I mean, he is my big guy, in terms of a witness, in terms of the cost of capital, so what we've done, Mr. Chairman, is we've put together a package of his exhibits, the ones that he'll refer to in his introductory remarks, so that there's a flow to what he has to tell the Board, without jumping all over the place, like by binders.

MS. GLYNN:

Q. We're going to mark that as Exhibit LB-1.

CHAIRMAN:

Q. So you're ready, sir?

DR. BOOTH:

A. I am, indeed.

DR. LAWRENCE BOOTH, SWORN, EXAMINATION-IN-CHIEF BY MR. THOMAS JOHNSON

MR. JOHNSON:

Q. Dr. Laurence D. Booth, sir, you have filed pre-filed testimony in this matter and your pre-filed testimony is dated August 2009. Is that correct?

DR. BOOTH:

A. It is.

MR. JOHNSON:

Q. And you also answered request for information requests and sir, do you accept the evidence and your RFI answers as your testimony in this proceeding?

DR. BOOTH:

A. I do.

MR. JOHNSON:

Q. Dr. Booth, would you, please, provide your background experience and qualifications, sir?

DR. BOOTH:

A. I'm a professor of finance at the Rotman School of Management at the University of Toronto where I hold the CIT chair in structured finance, and I've testified before a variety of public utility boards across Canada, including the National Energy Board, the CRTC and most of the public utility boards, and this is the first time I've appeared before this Board, but I was here for a CRTC hearing for Newfoundland Telephone many years ago.

MR. JOHNSON:

Q. And sir, do you have any corrections or update that you wish to make to your testimony?

DR. BOOTH:

A. No updates. There's a number of minor typographical errors, but they're not material to my recommendations.

MR. JOHNSON:

Q. Dr. Booth, can you briefly describe the economic and financial market conditions against which your report was prepared?

DR. BOOTH:

A. I can. Am I going to see my overheads on the screen? Okay, across Canada -

(12:15 p.m.)

MR. JOHNSON:

Q. Right now, for the record, we're looking at a graph on page nine of Dr. Booth's pre-filed testimony.

DR. BOOTH:

A. Across Canada, we've had a number of hearings this year. Ms. McShane's mentioned some of them, but the Alberta Utilities Commission had a hearing in June. The Ontario Energy Board has had a technical conference. The BC Utilities Commission has had a hearing just over a month ago, and the Regie in Quebec had a hearing about two months ago, and the cause of these was primarily the overall conditions

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in the capital market over the last year. What has to be remembered is that there are regular flows to the economy, the business cycle, and this business cycle generated predictable events and predictable impacts on credit spreads, on long Canada bond yields, on changes that have existed since the first adjustment mechanisms were put in place in 1993.

So what I've got here is a graph of the overnight rate, which is the most direct evidence of this regular cyclical fluctuations in the economy, because the overnight rate is a bank account of the policy rate. It basically tells the financial markets whether the Bank of Canada is trying to stimulate the economy or whether it's trying to slow down the economy. So right now, as we can see, we've got an overnight rate of 25 basis points which the Bank has committed to keeping until at least the second quarter of 2010, because we've had a very serious slow down in the economy over the last three quarters. We're pulling out of that now, but we're in a recovery mode, and we can look at that and we

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can see that there's been periods like this before in the financial markets. So we can go back to 2001, 2002 when the ROE was last litigated here, which again was similarly just after the stock market crash at the internet bubble and we can go back to the mid '90s and the early '90s when we had a very serious recession in Canada due to the adjustments of the free trade with the United States, as well as a cyclical downturn.

So one of the important things that I've been telling all the boards across Canada, it's very important to separate out predictable business cycle impacts on the financial markets and the fair rate of return from unpredictable events. So the overnight rate basically tells us that we have to pay attention to the business cycle.

Now the second overhead -

MR. JOHNSON:

Q. As you refer to them, Dr. Booth, could you identify them for the record?

DR. BOOTH:

A. Okay. This is page 13 and this is the graph of the money market spreads. We look at

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spreads which is just the interest rates on default risky instruments versus default free instruments issued by the Government of Canada, and this is essentially what we've been living through for the last two and a half years. Up until the middle of 2007, we were basically immune from events in the United States, but there was already a slowdown and problems in the US capital markets due to a couple of failures of big hedge funds in the United States linked to Bearstearns and the crisis sort of started percolating into Canada August 2007 when basically the acid back commercial paper market froze due to links, relatively small links, six or seven percent of acid back paper was linked in some way to US subprime debt, and you can see the significant jump in these spreads. So that indicates that as far back as 2007, investors were looking at short term instruments, commercial paper and instruments issued by the bank, which is what this BA spread indicates, and saying well, look, there's credit fears here. We're reluctant to lend to big corporations and even the Canadian

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banks on their normal terms, because we're worried about the credit situation flowing in from the United States.

Then the second sort of bump up there is March 2008 when Bearstearns was in very, very serious trouble, was bailed out by basically the Fed Reserve guaranteeing some debt so that JP Mobil could acquire them and that sort of subsided until a big jump, which was September 14th, 2008 when the US Government decided that it couldn't bail out yet another US investment bank and allowed Lehman Brothers to fail, and that's really what turned what I would generally regard as a normal business cycle downturn into the most severe credit crisis we've had in 70 years, because once Lehman failed, Lehman was so interconnected with banks all the way around the world that there was a domino effect and finance minister--the French Finance Minister said this is grave error. Most commentators at the time said this is a grave error because it basically dominoed throughout the US financial system causing huge spreads for the banks in the sense that investors suddenly decided, "well,

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if Lehman Brothers can fail, Bearstearns basically failed, which other bank is going to fail?" because they're all connected, and over one weekend AIG was basically taken under US government control. Merrill Lynch looked at Lehman Brothers and said their financial statements are no different from ours, and they sold themselves to Bank of America and over the next couple of weeks, Wachovia was bought out, Washington Mutual was bought out and the financial markets suddenly realized that the whole of the US financial system was in a very serious state of meltdown and literally they had no idea which bank would subsequently fail in the United States, and that's cause the credit crisis, the first leg of this serious recession that we've came in, well, we've come through, because once the banks can't raise money and people are afraid of lending to the banks, the banks basically have to preserve capital, have to try and stop becoming the next Lehman Brothers and as a result, they've restricted the growth of credit and we've seen a credit crunch. We've seen high spreads and we've seen the second

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effect, which is once the credit crunch hit the US markets and percolated around the world, we got the real economy being affected as people stopped spending money, people started worrying about their jobs, firms retrenched and we started seeing the very serious impact in the fourth quarter of 2008 and the first and second quarter of this year as we went into a serious recession.

So that's basically the background to everything that's been happening that's precipitated or what I would regard as precipitating these hearings right the way across Canada into the fair rate of return. It's essentially events coming from the United States because of the failure of the US financial system. It's percolated into Canada because essentially the bond market in particular is a market where people hold inventories of bonds in order to meet demands from investors to buy and sell and US banks sold off large amounts of securities in the fall of 2008 because they had to raise significant amounts of capital in a hurry because they were afraid that they would be

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the next banks to fail.

Washington Mutual, in particular, failed in a matter of two or three days when they lost about 16 to 18 billion dollars in deposits. Every other bank in the world looked at that and said we need to sure up our capital. We need to get as much ready reserves as possible, otherwise we could get into serious trouble.

So that's why when you look at what's happened in the bond market, and this is Schedule 11 and 12, we can see two things. First of all, as I mentioned, there is a normal cyclical behaviour in terms of spreads on default risky bonds and profitable or the stage of the economy. So this graph may look like it's going all over the place, but basically all that it shows is the ROE which is on the right-hand side indicates the overall level of corporate profitability in Canada. That comes from a Statistics Canada series that tracks everything in Canada and the triple B spread basically indicates the riskiness of investing in the lowest grade investment grade debt in Canada.

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So essentially, when you go into recession, profitability drops, spreads widen. So we can see that most dramatically in the early 90s where in 1992 profitability dropped dramatically and spreads went over 300 basis points for that year, and then as you come out of the recession, profitability recovers. Investors get a little bit more happy with holding default risky debt and spreads come down. So that's the normal cyclical pattern we would expect, given what's happened in the economy, that we would see high spreads in the bond market.

What's unusual--if we turn our heads around, what's unusual this time around is that we can see all of these patterns in the spreads. So these just come from Scotia Capital, which maintains most of the bond indexes used by the Bank of Canada. They used to be in the Bank of Canada review. And we can see the BBB spread which is the most volatile because that reflects the lowest investment grade in Canada. The A and the AA spread. There's no AAA companies worth any note in Canada any more, so effectively the

Canadian banks, for example, are AA. So generally, they're not as sensitive to the business cycle. The dramatic thing that we can note during this crisis is not just the huge increase in spreads last fall, but the fact that if you look at them, the AA and the A spreads went up as well, and that's symptomatic of the fact that not only was it severe financial crisis, but essentially the banks were selling all sorts of financial securities because the liquidity concerns primarily stemming from the United States and they were essentially selling anything to raise cash. So the dramatic effect, I think, that affects the utilities is that generally in Canada they're rated A. So unlike normal recession that we've experienced before where the A spreads went up a little bit and the BBB spreads went up a lot, over the last year, we're seeing this very significant increase in A spreads that haven't been experienced over this 20 year period when Scotia Capital has this data.

So I can quite understand why the utilities would look at this and say well, our

spreads have gone rocketing high. This is something that's of concern. But the important thing to recognize is that this was happening because of very specific financial problems coming out of the US banking system and whenever you mess with the banking system and the banking system's in fear of meltdown, it affects everything in the economy, and the important thing to note now is not just the credit spreads on the bank acceptances and commercial paper are back to normal levels, but the spreads in the corporate bond market are getting down to where we would expect them, given the severity of this recession. They're still marginally high. In my judgment, they're still 15-20 basis points higher than I would expect, given the state of economy, but they're not ridiculously high, compared to where they were three to six months ago.

So that's what precipitating, in my judgment, a review of the ROE mechanisms and the fair rate of return across Canada and the important thing is that by and large, this is--the horse has bolted. This is something that

happened three to six, nine months ago, and the markets are getting back to normal.

MR. JOHNSON:

Q. Okay, and Dr. Booth, what is your view of the upcoming test year?

DR. BOOTH:

A. The important point is that, as I've said, there's a normal cycle to the economy and third quarter of this year will show that we're no longer in recession. There's been some moderate growth and this is the Bank of Canada prediction from July of this year, and the Bank of Canada just reconfirmed most of these things, in terms of the overnight rate yesterday, but I don't have their updates for the economic forecast, but you can see that they're forecasting that real GDP quarter over quarter will be positive for third quarter this year. Fourth quarter, three percent growth, and then 2010, we're seeing more significant growth and into 2011, which is what we would expect.

Now in this context, it's important to recognize that in 1991, the Bank of Canada and the Federal Government came to an agreement in

terms of inflation forecasting. We are one of very few countries in the world that targeted a two percent rate of inflation at a band of one to three percent and the Government has stuck to that objective, renewing it on a five-year basis, and the Bank now has considerable credibility with the capital markets in terms of the future rate of inflation in Canada, and the Bank is now predicting that current rate of inflation is basically right at the bottom, if not outside of its range, but it's forecasting inflation in Canada will pick up by 2011, back to its target level.

The long Canada rate will pick up. There's absolutely no question. The long Canada rate is basically a function of the forecast rate of inflation and a normal sort of premium over the inflation rate and then it varies with the business cycle. So as long as the Bank of Canada sticks to its one to three percent range and the Government continues to back that as its long run inflation target, we can expect the long Canada rate to fluctuate between three and a half and, say, five and a half or six percent over the business cycle, but it's not going to go wildly outside of those ranges, unless something seismic happens to the Canadian economy and the Canadian capital markets, and we're now in a situation where what I would say as to situation of risk, we know where we're going. We're out of recession. We're in recovery and the bank and forecasters are forecasting the Canadian economy will be back on a growth path in a serious way in 2010.

France, Germany, got out of recession second quarter of this year. The world economy is recovering. We've seen a significant increase in commodity prices and we've seen a significant strengthening in the value of the Canadian dollar. All of these are symptoms of a strengthening world economy and a strengthened demand for Canada, and at the moment, the Canadian economy is relatively sound. Most of the drop off has been caused by exports, primarily to the United States, and as the US stimulus gets under way, we expect the Canadian economy to get back to a growth pattern.

So we're back to a situation now of what I tend to refer to as a situation of risk, not a situation of uncertainty. Economists make a distinction between the two because the situation of uncertainty is where you can't assign probabilities. You literally don't know what's going to happen, and back in the fall, that's where we were. We simply had no idea what was going to happen. When you start seeing Citibank down at 97 cents and having to borrow 65 billion dollars from the US Government, and you start seeing AIG, the biggest insurance company in the world with 180--160 billion dollars infusion from the US Government, these are absolutely stunning events in the capital markets and these are not things that normally happen. So back in the fall, we literally didn't know what was going to happen. Now that the US is fixing its financial system, we're back to a normal stage in the business cycle with a recovery. So people can now work out what's the risk, what can we do, and the financial markets are now functioning as we would expect them to.

So the test year is one of recovery.

It's still what I would refer to as early in the business cycle. When people talk about financial conditions, I constantly hear people say, wait for normal conditions. They're no such thing as normal conditions. There may be average conditions, but when people talk about normal conditions, they normally mean a strong economy, low inflation, top of the business cycle. That's no more normal than is a recession. We have recessions. We have booms. We have these normal cyclical fluctuations, and what we have now is a normal recovery from a recession. So I would regard that as normal, and I would regard good conditions as being just as normal as bad conditions. That's the way the business cycle works.

MR. JOHNSON:

Q. Thank you. Turning then, Dr. Booth, we've just addressed for the record the Bank of Canada's forecast on page 21 of your pre-filed testimony. How do you estimate the fear of return on equity, Dr. Booth?

DR. BOOTH:

A. Well, on page 33, I report the results of a

survey of major chief financial officers and that survey was done by a couple of prominent academics from Duke University, published in a major academic journal, and why it's important is simply -

(12:30 p.m.)

MR. JOHNSON:

Q. Just if you could just slow down until it gets there, Dr. Booth.

DR. BOOTH:

A. I'm watching.

MR. JOHNSON:

Q. I skipped over one that you had already addressed, which was your Schedule 3 on interest rates and inflation.

DR. BOOTH:

A. I'll get back to that one. Okay, so a little bit further up, it's the previous one at the top of the page. Ms. McShane mentioned that her estimates are based upon a variety of estimation techniques, but the important thing is to use the right estimation techniques and the fact is right now, 70 percent of CFOs in the United States, chief financial officers major corporations, use the capital asset pricing model. It's overwhelmingly the most popular method for estimating fair rates of return. 30 percent of them use average historical returns and I'll talk about that, because I use those to estimate the market risk premium, so that's important as well, to benchmark everything, and same sort of number, 30 percent or so use a multi-beta CAPM, and that's essentially what I do where I use a two-factor pricing model as well. So looking at capital asset pricing model using two risk factors, using long run average historical rates of return, which is what I do in my testimony, is exactly standard in terms of what chief financial officers do in estimating fair rates of return.

Down at the bottom, given a discount model, that's, as Ms. McShane indicated, hasn't been accepted in Canada explicitly for at least the last ten years, is down at about ten percent. There are real problems in using DCF or dividend discount models. I use them as a reasonable risk check, but they're no longer mainly used by chief financial officers in the United States. Investor expectations,

down at ten percent. That's another variation used in discounted cash flow models, but again it's way down there in terms of usefulness. Regulator decisions, obviously that reflects the minority of regulated companies in the US.

Now Ms. McShane and other witnesses constantly point out that there are empirical problems in historic estimates to the capital asset pricing model, and that's represented on the bottom of this page. When they first tested the capital asset pricing model, they used treasury bills with a risk free rate and they used the risk coefficients, the relative risk adjustment betas, whatever they were. Whatever they estimated, they just plugged in and they estimated how the rates of return compared to expected, and they got this result, the empirical capital asset pricing model, that if you use the treasury bill yield as a risk free rate and use the actual beta coefficient, there tends to be some predictable under and over estimation.

That's not the way I use the capital asset pricing model. As far as I'm aware, that's not the way anybody uses the capital

asset pricing model. When you're making long-lived investments, you need long-lived estimates of the fair rate of return which is why regulatory boards base them on the long Canada bond yield, not on treasury bills. Right now, if I based an estimate on the CAPM using the treasury bill yield of 25 basis points, it would be incredibly difficult to get much above three or four or five percent, which would dramatically under estimate the fair rate of return. So there's no question that the empirical results of testing the capital asset pricing model using treasury bill yields or using the actual beta coefficients have caused some problems, but that's not the way that I use it, the way that regulatory boards in Canada use it or anybody that I'm aware of uses it actually to estimate fair rates of return. So it's a bit of a red herring to say that there is empirical problems with estimating the parameters in the capital asset pricing model.

When we look at the actual parameters, as Ms. McShane and I have noted, I use 4.5 percent as the forecast on the long Canada

yield over the next year. The best estimates I've got from the Royal Bank and from others is that the yield would be about 4.75 by the end of the year. Ms. McShane's testimony was a little bit earlier than mine, so I don't regard the differences in the risk free rate as being material. For the test year, the estimate of the fair rate of return is 4.25, 4.5, something in that range. That's not a big area of concern.

MR. JOHNSON:
Q. Dr. Booth, I take it now are you addressing your Schedule 1 from Appendix F?
DR. BOOTH:
A. I'm now talking--I was about to talk about the market risk premium.
MR. JOHNSON:
Q. Okay, sorry.
DR. BOOTH:
A. I have a standard phrase that if students are asleep or lawyers are asleep whilst I'm testifying, and I ask a question. The first rule in finance is the time value of money and that's the basis of the capital asset pricing model, the risk free rate, and the second rule

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in finance, if they look puzzled, is the risk value of money, and the third rule in finance is the tax value of money. If you can understand those three, you can understand just about vast bulk of finance. So the capital asset pricing model captures the risk free rate. When we look at the market risk premium, we look back over very, very long periods of time to get an estimate of what is the trade off between risk and return in the capital markets. So these are my estimates and I estimate them different ways. I use simple arithmetic averages, looking at the rate of return each year and then just averaging it over the time period. I look at compound rates of return, which is what's down as GM, the geometric mean return, and RLS is just a statistical technique to estimate the annual rate of return.

When you look at this over long periods of time, the average in Canada is about four and a half percent. The average in the US is 5.6 percent. This is what the data tells us. After that, it's judgment in terms of how do we interpret that data and how do we make

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adjustments in terms of a going forward market risk premium, but historic evidence in Canada and the US is between four and a half and 5.6 percent. Ms. McShane's estimates are essentially exactly the same, because we used exactly the same data. So at the bottom, let's see, on page 47, Table 6 of Ms. McShane's testimony, she has 4.6 percent for Canada, 5.6 percent for the United States. So there's no dispute between Ms. McShane and I on what the historic earned risk premium is between equities and bonds in the US and Canada. The question is going forward, what's the difference.

Now this is where I introduced the evidence from--or the survey by Fernandes, which is on page 48 to 49 of my testimony. Page 48 and 49. So here I refer to market risk premium estimates as judgment constrained by the facts. You can look at the judgment and you can say, well those facts are wrong. Going forward, it's going to be different, and this is the judgment of 884 finance professors around the world. So this is not--I'm actually in there. I'm one of the 29 for

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Canada, but Pablo Fernandes surveyed finance professors, January, February of this year, right in the middle of the financial crisis, and these were their estimates. These were the estimates of people that teach finance, that read the literature, that have some judgment about what the market risk premium is, and their judgment is as informed about this as the judgment of anybody that's going to be looking at the historic data. Some of them are a little bit wacky. If you read some of the answers, yeah, they've got some that you look at there and say, "well, why on earth did he say that?" But then ordinary investors do exactly the same thing. Investment banks and others do exactly the same thing. So obviously whenever you look at a sample, you're going to get some people whose judgment you look at and say "how on earth did they come up with those views?"

The critical number is the median, the middle guy. The middle guy in the US thinks the market risk premium is six percent. The middle guy in Canada thinks that it's 5.1 percent. The middle guy in Europe thinks it's

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five percent. The middle guy in the UK thinks it's five percent. I think it's five percent. So one important fact is that my estimate of the market risk premium is not a high ball, it's not a low ball. IT's basically right in the middle of the pack.

If we then look at the next page, 49 to see where we stand, this is what counsel put to Ms. McShane earlier on today. We look at where does the cluster appear. What are the most typical estimates of the market risk premium? And my observation of all of those estimates is five and six percent is the most typical number coming out of Canada for the market risk premium. So I think if members of this Board just randomly pick up a telephone can call a professor of finance in Canada and say "hey, what's the market risk premium?" almost certainly they'll be told five percent or six percent, because that's what they're basically telling Fernandes. There's a couple down there at two percent and three percent, and there's a couple up there at seven percent and eight percent, but overwhelmingly, the professional judgment of professors of finance

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in Canada is the market risk premium is five or six percent. So I think that's judgment that's constrained by the historic evidence, by their experience in teaching and cases and looking at the research in the market risk premium.

So Ms. McShane has a higher estimate. So she uses 6.75 percent. How does she come up with that estimate? She looks at the low run equity market return of 11 to 12 percent and this has come down since her 2002 testimony quite significantly because the equity markets haven't been that well over the last ten years, and this equity return, I have no problems with this, this is exactly the same sort of data that's in my Table 1, Appendix F. Schedule 1, Appendix F.

The disagreement between us is that she takes these low run equity returns and subtracts her long run long-term Canada yield of 5.25 percent and that long run long-term Canada yield comes from her estimate over the full business cycle and it comes from the consensus economics estimate for 2011 to 2018 or 19, I believe. But it's a long-run

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estimate, and I have no problems with that. I think the long Canada bonds yield will go back to five, five and a half percent over the next few years. As the economy recovers, it will go to that sort of level.

(12:45 p.m)

What I do sort of doubt is the difference between those as a reasonable estimate of the market risk premium, and I doubt that simply because the current long-term Canada yield and the forecast are based upon the commitment of the Bank of Canada to maintain a one to three percent inflation rate, and that's the inflation forecast that's embedded in those long run Canada yields of 5.25 percent that Ms. McShane uses. Whereas the inflation experience from 2004 to 2008 is significantly higher than that. So the inflationary experience over that period has been closer to three to four percent and that inflationary experience gets fed into the overall equity returns in the market because equity is reflecting on the real resources in the economy. So I think her estimate of the market risk premium at 6.75 percent is high.

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It's high relative to what the typical people in the US and Canada, professors of finance, think that it is and I mean, it's high because there's a mismatch in the underlying inflation assumptions that reflected in historic experience versus the going-forward experience. So that's our disagreement in terms of the market risk premium.

In terms of betas, the relative risk adjustment. On schedule 14 of my testimony, I've got a variety of ways of estimating betas. This I will highlight simply because it's the subindex of the Toronto Stock Exchange utility index. Sometimes people look at this and they say "well, these are unstable. How can we place any reliance on that?" And my answer to that is you don't look at statistics without understanding what generated those statistics because these are just estimates of the relative movement of utilities against a general market over the pervious five-year period, and you have to just go back and say "well, what happened over that pervious five-year period?" and you can look at this and there's no doubt that the

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betas dropped starting in '99 and they dropped through to 2003, 2004, basically a five-year period. What happened in that five-year period? Well, the answer to that is relatively simple. Nortel and the internet bubble. Nortel at one time comprised about 35 percent of the Toronto market and as Nortel took the Canadian market up, utility shares didn't change very much, and when Nortel took the Canadian market down, utility shares didn't change very much. So the beta coefficients went down.

As that cyclical phenomenon attached to Nortel dropped out of the estimation period, beta started reverting to their normal level. So we can see that they were increasing, right the way up until last year, and then last year, they started going down again. Why? Because utility shares are sort of convertible bonds. They got a very high dividend component, which means that when the stock market crashes, they've got that support from the dividend, from the income. So that when the market goes up, they tend to move with the market and they have positive betas and when

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the market crashes, they don't crash, so as a result their estimated betas during that period become very low and that's exactly what we're experiencing now. When we go through it and get the 2009 data, we're going to end up getting lower estimates for the betas for utilities reflecting the fact that they're low risk stocks. So you have to look at the data and not just sort of say well, I don't like those statistics. You have to understand where those statistics come from, and they're just reflecting what actually happened in the capital market over those periods.

I also, just to backdrop in terms of price performance over the last year, I tracked the price performance on pages 43 to 45, and this is not rocket science. This is just going to yahoo.com, plugging in what's happened to the TSX index, where the GFP TSE is, the Toronto Stock Exchange composite index, plugging in the prices for most of the big six Canadian utilities and just graphing the price performance. So if these were as risky as the market as a whole, you'd expect them to behave like the market. What's pretty

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obvious from looking at these price charts is Emera, for example, when the stock market collapsed 40 percent, Emera was down 15 percent possibly in March 2009 and the same thing with Fortis. Fortis barely never dropped more than 20 percent when the market was off 40 percent, and we could look throughout all of the utilities and we can see what comes through very, very clearly is they're simply not as volatile as the market as a whole. They just don't drop with the market. They don't increase with the market, which is what we call defensive stocks or low risk stocks. So there's absolutely no question that the price behaviour of utility holding companies in Canada has demonstrated, yet again, that they're low risk. They're low beta stocks. They're defensive stock. So I have no problem looking at that. There are always problems with individual beta estimates because of unique things that are happening to firms, but overall what comes through clear as a bell is the low risk nature of utility stocks, the overall market risk premium, five percent, possibly six percent. So when you

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look at the estimate of a fair rate of return, I take four and a half percent for the long Canada bond yield for next year, which I think is reasonable. I take five percent for the market risk premium, which is totally typical of the median finance professor in Canada. I use a beta of .5, which is marginally high given the recent experience, reflecting the fact that I hope we don't have two similar financial crisis like we've had over the last ten years, the internet bubble and the banking crisis in the United States. Hopefully that's not going to happen again. And I come up with an estimate of seven percent. I then add 50 basis points for financial flexibility and I've started adding a margin for error, because when I look at my colleagues in Canada, it's either five percent or six percent for the market risk premium. I could be off by one percent of the market risk premium, so I take that one percent, multiply it by .5, the beta coefficient and say well, I could be off by 50 basis points, and I split the difference and add 25 basis points to my estimate.

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So my estimate is 7.75 percent at the moment, which is marginally lower than the adjustment mechanism used by this Board of Commissioners.

MR. JOHNSON:

Q. And speaking of the adjustment mechanism, Dr. Booth, can you briefly describe how these adjustment mechanisms work?

DR. BOOTH:

A. Yes, they adjust by 75 to 80 percent of the change in the long-Canada bond yield, or conversely the risk premium changes by 20 to 25 percent of the change in the long-Canada bond yield. So as interest rates come down, the risk premium automatically goes up to take into account the fact that equities do not change lock stock with the long-Canada bond yield, as a result of the market risk premium and the risk premium attached to utilities increases when long-Canada bond yields go down. The reason for the lack of a hundred percent adjustment and there was one commission, a B.C. utilities commission that used a hundred percent adjustment. The reason for the fact that it is not a hundred percent is that when the adjustment mechanisms were introduced in Canada in 1993 and 1994, we were in a very, very serious situation in Canada. The Federal government had a huge deficit. A deficit was running at 9 and a half percent of GDP. We had significant inflation of 6 percent, we had a tax burden that was growing significantly, causing problems in terms of productivity, in terms of problems of crowding other investors out of the capital markets. We had a very bad situation in Canada and the result was the long-Canada bond yield was significantly higher than it was in the United States and was causing real problems with the Federal deficit. This was why the government of Canada introduced inflation targeting in 1991. It's also why the government introduced a real return bond because the real return bond is indexed to inflation, so basically the government said, the Federal government said we'll take the risk of inflation. You buy the real return bond and if you don't believe us and inflation is higher than we're planning it to be, we take that risk through the higher value in the debt that we owe. So the

government took that commitment, the government moved to inflation targeting. The government subsequently dramatically cut program spending and by 1997, the Federal deficit moved into balance. Overall in government we moved into balance and for the last ten years, until this year, we basically had a surplus in the payments of government in aggregate and as a result, a significant amount of risk has gone out of the long-Canada bond yield and that's allowed the long-Canada bond yield to drop for two reasons. First of all, capital markets have now convinced the Bank of Canada to stay with its one to three percent inflation target, where it wasn't in the early 90s. And secondly, the risk of increasing government borrowing and crowding out private investment is gone, which has allowed the real interest to drop. These are bond market risks that have not affected the equity market, so I supported the adjustment mechanism before the BCUC in 1993 and the National Energy Board. I recommended a .8 adjustment. I also recommended that before the Manitoba PUB and that was accepted. The

major reason being the fact that the long-Canada bond yield may be default risky, but it's not a risk free investment, it does have interest rate risk and investors are exposed to purchasing power risk. Those are very significant risks in the early 90s; the equity market is not subject to those risks. So we would expect as the long-Canada bond yield has come down, as inflation has come down and the risk of government financing has come down, that the market risk premium would increase and as a result, the utility risk premium has increased. And that's exactly what the adjustment mechanism has done. In fact, they've done a remarkably good job at tracking the change in the overall rate of return.

MR. JOHNSON:

Q. So you support the continued use of the ROE adjustment mechanism, do you Dr. Booth?

DR. BOOTH:

A. Yes, I do. There's two things to look at. One, is the overall trend and if you look at the yield on the real return bond in Schedule 18 to my testimony, you'll see that when these adjustment mechanisms were introduced in the

early 90s, '93, '94 BCUC, NEB and then the Manitoba PUB, the real return on the long-Canada bond was four and a half percent, so this is the return on the real return bond. Since then, as it's got its financing under control, the risk has dissipated and long-Canada bond yields for the real return bond have dropped down to the two percent level. So there's been about a two and a half percent drop in the real interest rate on the real return bond and all else constant, that would mean that the risk premium, the market risk premium would have gone up by that amount and if the Beta is .5 as I estimate, the utilities fair rate of return, the risk premium, would have gone up by 125 basis points. By happenstance that is exactly what's happened as a result of the NEB's formula that a utility risk premium has gone up by about 125 basis points since 1994. So I think that the direction of the trend, as a result of the ROE Adjustment Formula, has been absolutely correct over the last fifteen years. That does not mean to say that it's correct in a mechanical way on an annual basis, so I've

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never said that it's absolutely correct. No mechanical forecast can be absolutely correct, it's going to over and under predict slightly over the business cycle and that's why I have no objection to supporting the continuation of the ROE Adjustment Formula, even though it's 40 or 50 basis points higher than what I think is a fair ROE. I think as far as people are concerned it's marginally higher, but if it does away with repetitive ROE testimony and clears the slate for regulators to do other things, then I think overall that's a good bargain for all concerned. So I think overall the direction of the ROE formula has been absolutely correct, but it doesn't mean to say that it's absolutely correct on a year-to-year basis, given changes in the capital markets.

MR. JOHNSON:

Q. Dr. Booth, what would you have recommended to the Board in the middle of the financial crisis last year when the A spreads were at the record highs that you've described?

DR. BOOTH:

A. Freeze everything. The Ontario Energy Board in, I think it was January, issued a letter

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saying that the spread between the ROE and the corporate bond yield was incredibly narrow. I was asked by a variety of intervenors to sort of brief them on the background on exactly what was happening and they asked me then what should we do, and I said recommend to the Board to freeze everything for a year because there's so much uncertainty in the capital markets making any decisions based upon changing the ROE formula or anything would be counterproductive. We have to wait to see whether the uncertainly in the capital markets shake out and whether we get back to normal or whether the U.S. financial system is just going to continue in a tail spin. So that was my recommendation to people that were intervening in the Ontario Energy Board and that would have been my recommendation at any time between September last year and basically March when the stock market hit its low. But I think since March, we've been out of the situation of uncertainty. The U.S. banks were stress tested and the U.S. bank, one of the-- the U.S. government won't allow any of the U.S. major banks to fail now and its problems

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in the U.S. financial are working their way out.

MR. JOHNSON:

Q. Dr. Booth, we are now not quite a year from the end of the financial market meltdown. If we had frozen everything a year ago, what is different about the market conditions now?

DR. BOOTH:

A. Now we're back into the situation where we know where we're going. Six months ago, a year ago, as I indicated we were in a situation of uncertainty where people really didn't know whether the U.S. was going to allow its financial system to fail and no functioning modern economy can exist when firms like or banks like Bank America and City Group and Wachovia and Washington Mutual and these are not little institutions, these are the biggest financial institutions in the United States when there's a fear that they will fail. So given all of that uncertainty surrounding the banking system in the United States, the capital markets were under incredibly intense situation, uncertainty, nobody really knew what was going to happen.

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That is not what we got at the moment. We are back to a situation where we're recovering from a normal cyclical recession. We're back to a situation where the A spreads are close to where they would be at this stage in the business cycle. The Toronto Stock Exchange is now bouncing around eleven and a half thousand, we're below the peak of eighteen months ago, but we're just coming out of recession, you expect the stock market to be off a little bit. The exchange rate dropped a couple of cents yesterday, but we're now up to 95 cents again, so overall we're in a situation, as I said, a situation of risk where we know where we've been, we've been here before, this is a recovery from a recession, we're going to get stronger. Next year it's going to be better and 2011 is going to be better than 2010. This is no different in any substantial way from the situation in the early 90s or the early 2000s when we similarly had recession, very high spreads in A bond yields and we had similar source of conditions in the capital markets. So as I've said to other people, my son would say "been

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there, done that, got the T-shirt", so that's the situation of risk. We know where we are, we know where we're going, we're no longer in a situation where we simply don't know what's happening.

(1:00 p.m.)

MR. JOHNSON:

Q. Dr. Booth, we're coming towards the end, but as you know we've spend some time talking about U.S. utilities, can U.S. utility ROEs be compared to Canadian without adjustment?

DR. BOOTH:

A. I taught international finance for 15 years at the University of Toronto. The first basic rule in international finance is you cannot take interest rates or fair rate of returns for one market and of one country and apply them to another without making serious adjustments to those. There's been a lot of discussion about integration of capital markets. Integrated capital markets simply mean to say that there's arbiters between different securities and foreign exchange rates adjust to take into account differences in inflation and differences in interest

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rates. So the very, very basic level, accepting evidence from the United States into Canadian jurisdiction violates everything that I've been teaching in international finance for the last fifteen years. You have to make adjustments. In terms of looking at U.S utilities, I would basically point out three things. First of all, U.S. utilities are not regulated on the same basis as Canadian utilities. They may have the same technology, the same underlying pipes and wires. They may even have the same regulatory requirement for fair rate of return and the same overall historic cost of regulation, but what's absolutely critical in regulating utilities is not the overall philosophy of regulations, but how it's implemented. And I'll give an analogy here, just about every country in the world has insider trading regulations. That's the legal documentation. If you just look to the law, you'd say insider trading is illegal just about everywhere. The next question is, oh yes, how many times have people actually been prosecuted for insider trading and you discover there that there are very few

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prosecutions for insider trading, so the philosophy, the regulation is part of the story but the most critical story is implementation, what actually gets done. And what's important in Canada is from my experience regulators protect the utility, they have frequent rate hearings, if there's any risks that come up, they come before the regulatory body and things get worked out. That's the Canadian way, things get worked out and very, very rarely is a utility hurt. That's not what happens in the United States. They have infrequent rate hearings and it's a more litigious environment, which means people get hurt. And I was struck this morning when Mr. Johnson was taking us through all of these U.S. utilities and the fact that they do get hurt. Regulators in the United States have just got a different philosophy in terms of regulation than regulators in Canada. And that's confirmed by the discussion in Moody's and it's confirmed by the fact that I look at the earned rate of return of Canadian companies relative to the allowed. I've never seen any Canadian utility hurt in Canada for

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the last 20 years. The only utility that suffered any problems was Specific Northern Gas and the regulator, the BCUC, had fallen over backwards to protect PNG, but there's not much you can do when you lose 70 percent of your load. But the fact is the regulators in Canada are incredibly protective towards the utilities to make sure that they don't get harmed and to minimize the fluctuations in the allowed ROE, which is why Canadian utilities invariably out perform and over on their allowed ROE. And that's not what happens in the United States. So that's one situation in terms of the first rule, which is how do we regulate utilities.

The second one is what I call event risk. The fact is in the United States they periodically have major blow ups and part of this is because the regulator's responsibility is towards protecting the consumer, removing monopoly power on the part of regulated utilities. They do not seem to be so concerned about the actions of bond holders. And it is absolutely certain or absolutely clear that Standard and Poors suffered

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problems in the early 2000s when a number of U.S. telecoms got involved in the Internet bubble and the result was regulated telephone utilities in the United States saw their bonds downgraded significantly from AA down to below investment grade in some sense, and the State Utility Commission did nothing to protect them. Their concern was for the provision of service, not for the protection of bond holders. That was also evident in ENRON. ENRON is a classic case because it's not every day that a holding company raises its regulated pipelines subsidiaries to one and a half billion dollars. I mean, that's a huge amount of money to take out of your regulated utilities and S&P noted that, they expected FERC to come up with rules to ring fence pipelines in the United States and FERC fell down. As far as S&P is concerned, they didn't put in place the right sort of protection for bond holders in the United States. Those are what I would refer to as event risk. If you're running a holding company and you're investing in the debt of that holding company or the debt of that operating subsidiary,

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you're always worried that some sort of acquisition or sale is going to make that debt significantly riskier, and that's why S&P requires ring fencing on the part of a subsidiary in the United States; otherwise, they can't get a rating better than the parent corporation. So we have to remember Specific Gas and Electric, we have to remember ENRON, we have to remember these events in the United States because these are what U.S. investors think of as utilities and it's in their minds that this has happened before and it can happen again. The final instance is the big macro picture. There's absolutely no question that going back 15 years ago when the ROE formulas were put in place, a little riskier in Canada than the United States, higher inflation, bigger budget deficits, the Canadian dollar that went down to 62, 63 cents. We've solved all those problems. We've got our tax burden down, we've got the rate of inflation down, the Canadian dollar is up. The government's got a little bit of a deficit at the moment, but most of that will be self correcting over the next three to four

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years. The fundamental structural deficit is only about 20 billion dollars, relative to just about every other major country, Canada's finances are in an incredibly good situation. The U.S. is not in the same situation. They now have a deficit running 13 percent of GDP and whether or not that's increased as a result of health care costs, we don't know. But the U.S. has got significant debt problems. They're going to have to raise taxes, they're going to have to sort out their deficit problems and you would expect rates of return opportunity costs in the U.S. capital market now to be greater than they are in the Canada, which is pretty much largely where they are. Currently long-Canada rates are marginally lower than those in the United States. Prime is at least one percent lower than those in the United States. So benchmarking against the United States, given all of the sacrifices and the achievements that we've got in Canada, to me just doesn't make any sense. The U.S. may be used as a comparable to look for signals, but you have to make adjustments. Taking information from

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the U.S. without adjustments just, as far as I'm concerned, just doesn't make any sense.

MR. JOHNSON:

Q. Just two final questions. One would be, Dr. Booth, would you comment on the assertion that as the cost of borrowing increases, there should be a commensurate increase in return on equity?

DR. BOOTH:

A. First of all when I look at equity reports, it is very, very rare to see an equity analyst analyze a company and then refer to the bond yield--sorry, refer to the bond rating. In fact, I was looking at Bank of Montreal's analysis of Fortis this summer and they've got a buy recommendation of Fortis and I didn't see anywhere where they referenced the bond rating. Generally the equity markets do not look seriously at bond ratings. The estimated equity rates return may be affected by some of the factors in bond ratings and the bond yield, but the equity markets march to different drummers. They're different institutional purchasers, they look at different facts. What happened in last fall

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and in the spring was a serious sell off in the bond market, serious liquidity problems in the bond market, but you get the exact opposite in the equity market. There's been more liquidity, more trading in the equity market over the last year than there has been ever before. We've had record amounts of trading because equity markets strive on uncertainty because it basically generates trades; where the bond market wilts under uncertainty because it's an institutional market with only relatively few people involved in the bond market relative to the equity market. So certainly is some relationship between two, but there's so many things going on in the bond market, it's no easy analogy between what's happening in the bond market and what's happening in the equity market. Even if we do look at bond spreads, the problem is they're not like interest rates. Bond spreads average out over the business cycle, so if you start taking some estimates based upon bond spreads, you get into the problems that Ms. McShane was in this morning that you have significant changes in

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the bond spreads, it changes the fair rate of return. If you feed those into the allowed rate of return, you're generating a large amount of uncertainty in allowed rate of return, which basically evens out over the business cycle. And I see no advantage in doing that.

MR. JOHNSON:

Q. Finally what is your overall assessment and what is the basic Litmus test that you think the Board could look to to assess the fairness of the allowed ROE?

DR. BOOTH:

A. Pierre Trudeau once referred to the smell test, that basically you look at something and say, well, I could look at all of the evidence but does it make sense? The Litmus test that I use in terms of a fair rate of return is what's the value of regulated assets? When I see regulated assets earning an allowed rate of return being sold from one holding company to another at a 60/70 percent premium to their book value, I know the fair rate of return is more than fair, because when you paid 60 to 70 percent more for the equity in a regulated

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utility that's already earning a fair rate of return, that 60 to 70 percent premium is a non-earning asset. You're basically throwing 60 to 70 cents on the dollar away just to get a dollar earned in the allowed rate of return. So I would not base regulation on market to book ratios, but I think you could look at market to book ratios and they can basically confirm the general direction of whether the ROE is fair or not and that's similar to the decision of the Alberta Utilities Commission and the BC Utilities Commission, both of which took comfort in the size of the market to book ratios as indicative of whether or not their allowed ROEs were fair or not. And as long as you see market to book ratios significantly above one--and I mean by this, 1.5, 1.6, 1.7, there's comfort in the fact that allowed ROEs are not unfair. That's the market signal that people are willing to pay premiums to buy these assets that are already earning the allowed rate of return, so I take comfort in that in indicating that the allowed rate of return by this jurisdiction and every jurisdiction in Canada, I fail to see how

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anyone could really say that they're unfair and unreasonable.

MR. JOHNSON:

Q. Thank you, Dr. Booth.

CHAIRMAN:

Q. Mr. Kelly, I think it's your turn.

KELLY, Q.C.:

Q. Thank you, Mr. Chairman. Good afternoon, Dr. Booth.

DR. BOOTH:

A. Good afternoon.

KELLY, Q.C.:

Q. Dr. Booth, I'd like to start with a couple of basic principles just to be sure we're on the same page. What the Board has got to do in this hearing is to look at the return on equity to determine prospectively for the 2010 test year what the fair return is for Newfoundland Power; in other words, it's a prospective or forward looking determination, do we agree on that much?

DR. BOOTH:

A. That's right, that's why we look at the test year.

KELLY, Q.C.:

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Q. Not simply looking back at historical data, it's a question of looking forward and trying to determine what the future will be?
DR. BOOTH:
A. That's correct. We look at the past guide judgment of what the future is likely to be, but we're always looking at the test year.
KELLY, Q.C.:
Q. So that and the second point is the fair return or the just and reasonable return is the return commensurate with the return expected by investors on investments of similar risk?
DR. BOOTH:
A. Securities of similar risk, yes.
KELLY, Q.C.:
Q. Well, I'll take that. So we're looking for that expected return on securities of similar risk, agreed?
DR. BOOTH:
A. That's correct.
KELLY, Q.C.:
Q. Now as you said a minute ago and as you made a number of points in both your pre-filed testimony and your response to RFIs, your

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testimony is about fair return, what's expected, is largely a function of your judgment, can we agree with that?
DR. BOOTH:
A. I would regard it as judgment constrained by the facts, you have to look at the facts and the facts, for example, the market risk premium is less than my recommendation, the facts are the betas coefficients are less than my recommendation, so I would say that my recommendation is higher than the facts, but that's my recommendation.
KELLY, Q.C.:
Q. We'll come to some of those details in a moment, my point simply is I think as you said in response to one of the RFIs, it's not simply a mathematical or statistical exercise that you're engaged in, nor for that matter Ms. McShane or Mr. Cicchetti.
DR. BOOTH:
A. That's correct, if you wanted statistics, then you'll just hire a statistician.
KELLY, Q.C.:
Q. Right, so you've exercised your judgment and Ms. McShane has exercised her judgment and Mr.

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Cicchetti has exercised his in the process of trying to assist the Board.
DR. BOOTH:
A. That's correct.
KELLY, Q.C.:
Q. Now one of the areas that require judgment is the methodology that is going to be employed to try and figure out what this expected return is going to be going forward. Will you accept that?
DR. BOOTH:
A. Yes.
KELLY, Q.C.:
Q. Okay, and will you also accept that all of the methodologies, whether we look at the capital asset pricing model or the discounted cash flow model, all of them have certain problems or difficulties inherent in them?
(1:15 p.m.)
DR. BOOTH:
A. Every estimation has problems, some of them are clearly methodologically superior, but they all have estimation problems attached to them, even if they're methodologically inferior.

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KELLY, Q.C.:
Q. Right and the capital asset pricing model itself has known estimation problems associated with it, agreed?
DR. BOOTH:
A. The test of the capital asset pricing model 30, 40 years ago indicated that there were problems with it when it was used to estimate 30 day rates in return in the capital market.
KELLY, Q.C.:
Q. Could we bring up your evidence, page 50.
DR. BOOTH:
A. Yes.
KELLY, Q.C.:
Q. For example at line 20, you're talking about a two factor model. First of all you have your basic capital asset pricing model and then you also develop this two-factor model which you say partly adjusts for the known estimation problems with CAPM?
DR. BOOTH:
A. That's correct.
KELLY, Q.C.:
Q. Right, and in fact your two-factor model, I don't want to get into a whole lot of detail,

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that hasn't found a whole lot of support with regulators, BCUC, for example, didn't apply it.

DR. BOOTH:

A. The BCUC didn't apply it, the National Energy Board said they thought it was useful and reflected more the way that you value utility shares, but they said they'd like to see more evidence and it's difficult to find how much more evidence you can come up with, but -

KELLY, Q.C.:

Q. Right, I think in your testimony in the-- recently in Terasen, you jokingly said you were a little hurt that they didn't like your two-factor model.

DR. BOOTH:

A. Well that's right, particularly when Ms. McShane does the same thing--I mean, she doesn't apply it as a model, but empirically the fact is utility shares react to interest rates and react to the stock market.

KELLY, Q.C.:

Q. Right, and what we're trying to do in all those models is trying to get handle, a judgment on what the future return is going to

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be, that's essentially what we're trying to grapple with.

DR. BOOTH:

A. Yes, that's correct.

KELLY, Q.C.:

Q. Now one of the biggest problems with the capital asset pricing model is that what the model really needs is the expected or future returns, as opposed to simply to realize past returns, that's kind of one of the biggest struggles in it, isn't it?

DR. BOOTH:

A. That's exactly right. Well what we use is the actual return on the basis of that is what was expected, plus a random error term, and if you do it enough times, the random error term reduces to zero.

KELLY, Q.C.:

Q. And we'll get into a little bit of it in a minute now. So that's the fundamental difficulty trying to get that handle on future returns and if I could take you just to page 33 of your evidence for a moment and we had this up on the screen just a few minutes ago. I take you to lines 5 and 6, a the tail end of

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line 5, it tends to underestimate returns for low risk, in other words, beta less than one stocks?

DR. BOOTH:

A. That's right, it tended to do that over the period that they estimated the CAPM, correct.

KELLY, Q.C..:

Q. Now there are other methodologies out there and one of them is the discounted cash flow methodology, correct?

DR. BOOTH:

A. That's correct.

KELLY, Q.C.:

Q. And let's just follow that line for a bit, that's kind of based on the proposition that the price of the stock equals the present value of the future expected cash flows being discounted down to reflect the risk and that discounted rate is essentially the rate of return we're talking about?

DR. BOOTH:

A. That is correct. The discounted cash flow model is an internal rate of return that sets the present value of the future frame of dividends equal to the current stock price.

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KELLY, Q.C.:

Q. Right, so you're looking at an expected stream of cash flows, so in that sense it's a more direct model based upon the investor expectations, instead of an indirect model.

DR. BOOTH:

A. Yeah, but you said exactly the same thing, they're expectations. The question is you need to an expected rate of return at test of CAPM, you need expected cash flows to come up with the DCF estimate, and not just that, with the DCF estimate, you need the expected cash flows over multiple time periods.

KELLY, Q.C.:

Q. But one way to go at it is to look at what investors expect and so, for example, just to take Mr. Cicchetti's example, he looks at Value Line expectations and works out a DCF model on that basis.

DR. BOOTH:

A. That's right. I mean, they're not investors, I mean Value Line is a private proprietary investment service.

KELLY, Q.C.:

Q. And the proxy for investors, though, in the

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circumstances?
DR. BOOTH:
A. That's right, but that's the problem, how good a proxy it is.
KELLY, Q.C.:
Q. As we just said a few minutes ago, difficulties with each of the methodologies. Now, can I take you over to your appendix C and you actually look at a DCF model, correct?
DR. BOOTH:
A. That's correct.
KELLY, Q.C.:
Q. But you don't take the DCF model to actually then incorporate investor's expectations and then calculate out a DCF calculation, would you agree with that much first?
DR. BOOTH:
A. That's correct.
KELLY, Q.C.:
Q. What you do is use it to kind of try and validate the market risk premium analysis is what you do?
DR. BOOTH:
A. That's true. I used to use, half my testimony used to be discounted cash flow up until the

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early 1990s and then we increasingly had a problem with discounted cash flow in Canada and I now use it where I can as a check to sort of indicate is it--are my basic estimates in the right ballpark.
KELLY, Q.C.:
Q. Let me at the bottom of page one, take you down to the last line there, beginning at line 22, "I already use this DCF estimate as part of my risk premium estimates. However, we can take this a stage further and estimate the DCF required return on equity directly using the same procedure".
DR. BOOTH:
A. Yeah.
KELLY, Q.C.:
Q. Correct, and that's what we've talked about, for example, as Ms. McShane and Mr. Cicchetti have done?
DR. BOOTH:
A. That's right.
KELLY, Q.C.:
Q. And that becomes this "K" factor which in the middle of page two?
DR. BOOTH:

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A. That's right, "K" is just the investors required rate of return on the discount rate.
KELLY, Q.C.:
Q. Right, now let me take you briefly over to page 71.
DR. BOOTH:
A. Yes.
KELLY, Q.C.:
Q. Bear with me a second here, back to page 71 of your testimony, and this kind of picks up -- wait until Mike gets it on the screen here for you. Here we go, at line 6, we've got the same formula to get the "K" factor, and beginning at line 8, you say, "My Appendix C presents data for all US utilities followed by Standard and Poor's, as well as the electric and gas utilities. This data i s used to estimate a DCF required return", that is then subtracted, et cetera, as you go into the -- so you use the Standard and Poor's data, and you use a sample of US utilities to do your DCF analysis, correct?
DR. BOOTH:
A. Well, I used the Standard and Poor's sample. I didn't create a sample from Standard and

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Poor's. I just used the Standard and Poor's analyst handbook, and the utilities that they include in their analyst handbook.
KELLY, Q.C.:
Q. Right, and that's a sample of US utilities?
DR. BOOTH:
A. That's correct.
KELLY, Q.C.:
Q. Right, and if I take you back to Schedule "C", to page 6 of Schedule "C" --
DR. BOOTH:
A. Yes.
KELLY, Q.C.:
Q. And you'll see -- wait until we get it on the -- Appendix "C".
MR. SIMMONS:
Q. PDF, I think. I think it was distributed as a separate pdf.
KELLY, Q.C.:
Q. No, it's part of Dr. Booth's Report. It's where we were originally, Mike, Appendix "C". Not a table, just in the text. There we go. If we can go to page 6, Mike. Go down to the bottom of the page. So this is the US utility data that you're referring to, Dr. Booth?

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DR. BOOTH:
A. That's correct.
KELLY, Q.C.:
Q. And that would be similar to the data that Ms. McShane has used and Mr. Cicchetti has used?
DR. BOOTH:
A. No, these tends to be big companies, so because they're big companies, they tend to have the holding companies, they tend to have holding companies with a variety of different operations, they involve more diversified operations. So I think in my Appendix "G", I actually go through and use these firms from the analyst's handbook, as well as using a sample of US firms that Ms. McShane uses, and a sample that Dr. Gilbert, another expert from the US, uses. So I look at those ones to assess the betas and the overall risk.
KELLY, Q.C.:
Q. Right, and what we're trying to do in the DCF analysis is to look for companies of comparability, comparable investment risk, correct?
DR. BOOTH:
A. Well, I'm looking to these US utilities to

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see, well, what is the actual data, what's the rate of return that I could estimate for these utilities, and is it in the right ball park, because -- and I just sort of qualify that, comparable doesn't mean equivalent. Comparable just means to say you're looking at utilities, or you're looking at companies that you're sort of saying, well, I'm going to estimate their rate of return, and what information can I get from that. So you can estimate those rates of return, and you can say, well, look, they're riskier, so I'm going to subtract 50 or 100 basis points from them.
KELLY, Q.C.:
Q. Go over to Schedule 3, in Appendix "C", at page 15, Mike. Here we go. There on the left hand side, Dr. Booth, is the list of American utilities, including some of the ones that my friend, Mr. Johnson, went through with Ms. McShane; Duke Energy, FPL Group, Southern Company.
DR. BOOTH:
A. Yes, in my Appendix "G", I go through a look at the overlap between the S & P utilities, Ms. McShane's sample, and Dr. Gilbert's

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sample.
KELLY, Q.C.:
Q. Okay, Mike, if you could just come over two more pages to page 17. Dr. Booth, this is your Schedule 5, and I'll just take you to the electric group at the top there.
DR. BOOTH:
A. Yes.
KELLY, Q.C.:
Q. And the "K" factor, which would be the required return, is a number of columns over there towards the right hand side, five back?
DR. BOOTH:
A. That's correct.
KELLY, Q.C.:
Q. And so if we went down to the bottom, for example, if we took the 2008 year, you come across, you get a return of 9.59, 9.6 percent, we'll call it, roughly?
DR. BOOTH:
A. Okay, yeah.
KELLY, Q.C.:
Q. Correct?
DR. BOOTH:
A. Yeah.

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KELLY, Q.C.:
Q. Now that's not a "go forward" return, that's essentially an historic value you're looking at?
DR. BOOTH:
A. No.
KELLY, Q.C.:
Q. No?
DR. BOOTH:
A. The historical value is a return on equity, which was 11.94 percent.
KELLY, Q.C.:
Q. Right.
DR. BOOTH:
A. So the historic value is the ROE. What we've got is how do we come up with the forecast for growth, and growth has to come from the underlying operations of the firm. So similar to Ms. McShane in her 2002 testimony, I look at what we call the sustainable growth rate, which growth has to come from something organic through the firm's operations, and the most basic way that growth comes is by retaining money within the firm and earning some sort of rate of return on that, and the

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way in which we estimate that is the sustainable growth rate formula, which the growth rate is the amount that you retain, the more you retain, you grow more, and times the rate of return on equity, and the higher the rate of return, the more you grow. So this forecast growth rate is a combination of the retention rate "B" times the ROE. So it's a forecast growth rate based upon historic parameters. So it's based upon historic statistics, but it's not an historic estimate of growth, it's a forecast for the future growth.

KELLY, Q.C.:
Q. That's a great explanation, kind of makes my point.

DR. BOOTH:
A. I thought you were going to come to that.

KELLY, Q.C.:
Q. In other words, it's based upon historic, you got 11 percent ROE, and you're saying 9.6 on that if I look -- 9.59 looking forward in 2008?

DR. BOOTH:
A. That's right.

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KELLY, Q.C.:
Q. Right.

DR. BOOTH:
A. And that's the first one, URP, and then for URP 2 and URP 3, I say, well, look, the historic data suffers all of the volatility of actual earned rates of return, so let's look at something that's probably a little bit more stable and a little bit more predictable growth rate. So I look at the median retention rate rather than some of these utilities. If you look at 2002, you see apparent ratio of 150 percent because that was the recession, some of these utilities like Duke had huge losses, and as a result their dividends weren't covered by their earnings, their payout was over 100 percent, their retention was negative. So if you just apply the mechanical formula, you'd end up with a negative growth rate and investors don't expect that. So in addition to the mechanical URP, I also looked at median growth rates times the ROE, and I also looked at median growth rates times a typical ROE for long US treasury yield, plus 4 percent, to try and get

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a proxy for what a reasonable growth rate is going forward, judgment constrained by the facts.

KELLY, Q.C.:
Q. Okay. So in this particular analysis, you didn't do the investor forward looking return, but you did do this degree of analysis, and you did that based upon American data using the Standard and Poor's database, in effect?

DR. BOOTH:
A. Yeah, it's -- the big problem is more and more we were facing US witnesses in Canada. In fact, I can't remember -- well, sure, I can remember. Two years ago, I came across a Canadian witness before the Regie. Other than Dr. Chretien, who produced Fama-French multifactor asset pricing model that the Regie didn't put much weight on, apart from that just about every witness in Canada for the last five years presented by the utilities has been American, and they've been presenting American testimony. So you can't have a situation where testimony based upon American evidence is presented and goes uncontested. So as I think I mentioned throughout Terasen

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Gas, I've been dragged screaming -- not screaming, but I've been dragged into looking at US testimony just to basically see what is this data that they're using, and how useful is it, and does it actually indicate what they say it indicates.

KELLY, Q.C.:
Q. I guess we can say despite your admonition of teaching for 15 years not to look at American material, you've gotten to the stage now that you, yourself, are using American material in your Appendix "C".

DR. BOOTH:
A. Yeah, that's a misstatement, that's a serious misstatement, because as I've said, you can't use it without making adjustments, and all I'm doing is looking at the US evidence here, and I'm not relying upon it, I'm not basing my estimates on it. I'm looking at it and saying, well, what are these estimates that come out of the US. If I was hired to go and do work in the US, what would I do if I applied a DCF model using standard DCF techniques, and the answer is the estimates are not much different from a significant

amount of the estimates that Ms. McShane comes up, and if I had to estimate betas for US utilities, what would these US betas be. So you can't allow US witnesses to come in and provide uncontested US testimony when -- I'm presenting Canadian testimony, somebody has to come in and test the legitimacy of that testimony, which is all I'm doing.

KELLY, Q.C.:

Q. So at this first level, the judgment as to the methodology, your evidence is based primarily on the capital asset pricing model, which is a form of equity risk premium test, correct?

DR. BOOTH:

A. It is equity risk premium.

KELLY, Q.C.:

Q. Exactly.

DR. BOOTH:

A. And, in fact, I use different ways of -- I mean, it's not directly capital asset pricing model. It would be capital asset pricing model if I used the actual beta coefficient, and I don't do that. I use a variety of ways of looking at the relative risk assessment for the utilities.

KELLY, Q.C.:

Q. And we have Mr. Cicchetti, who uses essentially a DCF model with a bit of market risk premium as well. Agree with that?

DR. BOOTH:

A. With no Canadian data whatsoever, from what I see.

KELLY, Q.C.:

Q. He used the DCF methodology?

DR. BOOTH:

A. True.

KELLY, Q.C.:

Q. Okay, and we have Ms. McShane, who uses both of those methodologies in several various formats?

DR. BOOTH:

A. That's correct, and as I indicated, I used to use four techniques; two risk premium, one based a variation on the capital asset pricing model which I'm using now, and the other based on preferred stock yields because the closest thing to utility shares are actually preferred shares because they've got the same tax characteristics and everything else, and that was based upon the local telephone companies,

but they all disappeared. So that technique just went out the window, I couldn't do it.

KELLY, Q.C.:

Q. So that methodology failed?

DR. BOOTH:

A. Well, the methodology didn't fail. The absence of data meant that it was impossible to do anything with it.

KELLY, Q.C.:

Q. Couldn't use it any more.

DR. BOOTH:

A. If you bring back Maritime Tel, Newfoundland Tel, and Bronco, and everything, then I'd be able to do it again, but --

KELLY, Q.C.:

Q. But they're all changes.

DR. BOOTH:

A. Exactly, so we have to change with it.

KELLY, Q.C.:

Q. And I understand you're now working on some new model that you've yet to roll out, and I'm certainly not going to ask about it, but these are different models all trying to get at the same issue, which is what's the investor's expected return going forward?

DR. BOOTH:

A. That's right, that's where I basically say that the good thing about the CAPM is you can't be that wrong with a CAPM because it's based it's based upon the time value of money and it's based upon the risk value of money, and we have 80 years of capital market history in terms of the market risk premium.

KELLY, Q.C.:

Q. Mr. Chairman, it's now twenty-five to two. I expect to be an hour or so with Dr. Booth, maybe a little bit longer in the morning, but I'm pretty much on track, so we can break here today if you wish.

CHAIRMAN:

Q. Yes, thank you very much.

Upon concluding at 1:35 p.m.

CERTIFICATE

We, the undersigned, hereby certify that the foregoing is a true and correct transcript in the matter of Newfoundland Power's 2010 General Rate Application heard on the 21st day of October, A.D., 2009 before Commissioners of the Public Utilities Board, Prince Charles Building, St. John's, Newfoundland and Labrador and was transcribed by me to the best of my ability by means of a sound apparatus.

Dated at St. John's, Newfoundland and Labrador this 21st day of October, A.D., 2009.

Judy Moss

Gwen Halliday

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