MANITOBA PUBLIC UTILITIES BOARD

Re: MANITOBA HYDRO

GENERAL RATE APPLICATION

2012/13 AND 2013/14

Before Board Panel:

Regis Gosselin - Board Chairman

Raymond Lafond - Board Member

Larry Soldier - Board Member

HELD AT:

Public Utilities Board

400, 330 Portage Avenue

Winnipeg, Manitoba

January 23, 2013

Pages 5106 to 5415

APPEARANCES

Bob Peters	(np)	)Board Counsel
Anita Southall		)
Patti Ramage		)Manitoba Hydro
Odette Fernandes		)
Byron Williams		)CAC (Manitoba)
William Gange		)GAC
Peter Miller	(np)	)
Antoine Hacault		)MIPUG
Michael Anderson	(np)	)MKO
Denise Pambrun	(np)	)City of Winnipeg

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--- Upon commencing at 9:02 a.m.

THE CHAIRPERSON: I believe that we're ready to start. Good morning, everyone. Do we have any administrative matters to attend to before we commence this morning?

MS. ANITA SOUTHALL: Yes, Mr. Chairman. Manitoba Hydro has, I believe, one (1) question in redirect. So perhaps we'll turn to them first. And then, as I understand it, immediately thereafter we'll turn to MIPUG's direct evidence. Thank you.

THE CHAIRPERSON: Good morning, Ms. Ramage.

MS. PATTI RAMAGE: Good morning. We -- as Ms. Southall indicated, we have just one (1) brief question for redirect, and it's a clarification of the record in terms of a subject to check. So I'll -- I'll just give you the background and pose the question to Mr. Schulz, and then we can very quickly move on with MIPUG's evidence

MANITOBA HYDRO PANEL 2 - REVENUE REQUIREMENT:

MANFRED SCHULZ, Resumed

DARREN RAINKIE, Resumed

RE-DIRECT-EXAMINATION BY MS. PATTI RAMAGE:

MS. PATTI RAMAGE: Mr. Schulz, on January 7th, 2012, at page 2,220 of the transcript, Mr. Peters asked you to turn to pages 212 and 213 of the PUB book of documents at Tab 19. These pages cited Manitoba Hydro's response to PUB/Manitoba Hydro First Round 101(a), which provided a graph of the next -- net fixed assets and the net debt for the years 1990 through 2032 based on IFF11-2.

On page 2,220 of the transcript, Mr. Peters noted that this information would be updated with IFF12 and suggested, subject to check, on lines 23 to -- through 25 of the transcript, that, and I quote here:

> "Out by 2032 the net assets will go up as much as 31 billion, and the net debt would go up to about 28 billion."

Mr. Schulz, have you had an opportunity to confirm those numbers that you accepted subject to check for IFF12?

MR. MANFRED SCHULZ: Yes, and good morning, everyone. And by March 31, 2012, the net fixed assets is projected to grow to approximately 33 billion, and the corresponding net debt is forecasted to grow to approximately 26.6 billion. Thank you.

THE CHAIRPERSON: Is the date correct, 2012?

MR. MANFRED SCHULZ: Sorry. I meant by 2032.

THE CHAIRPERSON: Okay.

MR. MANFRED SCHULZ: Thank you.

THE CHAIRPERSON: Thank you.

CONTINUED BY MS. PATTI RAMAGE:

MS. PATTI RAMAGE: And never one to stick with my word, I was just handed another piece of paper. And this is -- I -- I will put it in and have Mr. Rainkie just confirm this. This came from Mr. Warden, who was at a board -- at -- at our board meeting this morning, but he did want Manitoba Hydro to update the Board yesterday. There was questions regarding a Wuskwatim agreement. There was two (2) agreements, and Mr. Warden was sent an email saying that:

> "Those negotiations for that early agreement started December 8th, and the agreement was signed March 2011."

So, Mr. Rainkie, if you could confirm that for the record so that becomes the evidence?

MR. DARREN RAINKIE: Good morning, Mr. Chairman, members of the Board, and everybody. Yes, I can confirm that that is the case.

THE CHAIRPERSON: I'm sorry, I'm a bit lost. So are we talking of the first agreement?

(BRIEF PAUSE)

MR. DARREN RAINKIE: That was the first supplementary agreement. And, in fact, somewhere on the extensive record are the Wuskwatim financial statements for March 31st, 2012. And the date of March of 2011 is actually in the -- in the notes to the financial statements. So I -- I think that was -- information was already on the record. We were just trying to point you to where it is.

THE CHAIRPERSON: Thank you.

MR. RAYMOND LAFOND: Mr. Schulz, when I look at IFF12 page 40 and I look at the long-term debt, it says 27.9 billion. And I think you referred to twenty-six point six (26.6). And for the net plant in service, it's thirty-one billion, six hundred and forty (31,640,000,000). I'm looking at page 40 of IFF12.

MR. MANFRED SCHULZ: Yes, I'm familiar with that, M. Lafond. So when we do the calculation of net debt and net fixed assets, you have to be careful, for instance, in pulling off fro -- for instance, on the net debt calculation is taking the long-term debt, adding to it the short-term debt, and also the current portion of -- of debt in the current -- current liabilities and then subtracting from that the sinking fund balances to arrive at the net debt calculation. If -- looking just at the IFF financial statements, it would be difficult to derive that calculation.

And on the net assets, we take the property, plant, and equipment; add to that the construction work in progress; less the accumulated depreciation to arrive at the net fixed asset number. Again, difficult to derive specifically off the financial statements as presented in the IFF.

MR. RAYMOND LAFOND: Thank you.

(PANEL STANDS DOWN)

THE CHAIRPERSON: Thank you. I believe that's it for the re-direct for Manitoba Hydro. So M. Hacault, I will turn over the microphone to you.

Just before you start, you should know that I've -- I -- all of the Board members have read Mr. Bowman's report attentively, and that may help you in -- in the questioning of your witness. Thank you.

MR. ANTOINE HACAULT: Thank you, members of the Board. The direct evidence of Mr. Bowman didn't intend to follow the written evidence that he had done. What we'll be attempting to do is to deal with some of the testimony of Manitoba Hydro in additional IRs and look at that through the eyes of rate-making principles. And hopefully some of the testimony will answer some of the questions that were posed by Board members of the Hydro panel through, as I say, the eyes of rate-making principles, which would balance Manitoba Hydro's financial stability with the concerns and the needs and protection of ratepayers.

So the first part would be to help the Board understand Mr. Bowman's background. So I guess we should get him sworn in, please, Mr. Secretary.

MIPUG PANEL:

PATRICK BOWMAN, Sworn

EXAMINATION-IN-CHIEF BY MR. ANTOINE HACAULT (QUAL.):

MR. ANTOINE HACAULT: Mr. Bowman, I'd like to take you through some of your experience in the area of rate making.

And first, am I correct in understanding that you have about fourteen (14) years of experience in utility regulation having started in or about 1998?

MR. PATRICK BOWMAN: Yes. Good morning. Thank you, Mr. Chairman, members of the Board. Yes, that is correct.

MR. ANTOINE HACAULT: And during that time frame, as it regards to utility regulation, you have acted both on behalf of the utilities and on behalf of ratepayers.

Is that correct?

MR. PATRICK BOWMAN: Yes.

MR. ANTOINE HACAULT: And, for example, on the utilities side, you've acted on behalf of Yukon Energy Corporation, Yukon Development Corporation, Northwest Territories Power Corporation, and also Northwest Company Limited?

MR. PATRICK BOWMAN: The first three (3) are utilities. The fourth is actually a customer Intervenor. But -- but, yes, tho -- those are among the three (3).

MR. ANTOINE HACAULT: And in Manitoba, you have been involved in preparing analysis and evidence for regulator -- regulatory proceedings before the Board since 1998 on behalf of MIPUG?

MR. PATRICK BOWMAN: Yes.

MR. ANTOINE HACAULT: And in Newfoundland, you have prepared analysis and evidence in Newfoundland Hydro GRA hearings for the industrial consumers of Newfoundland and Labrador Hydro?

MR. PATRICK BOWMAN: Yes, since 2001, that's been one (1) of our clients.

MR. ANTOINE HACAULT: Now, your experience in rate-regulated matters also in -- evolves around project development, socioeconomic impact analysis, and mitigation. Is that correct?

MR. PATRICK BOWMAN: Yes.

MR. ANTOINE HACAULT: And for which clients have you provided support in that regard?

MR. PATRICK BOWMAN: Well, in -- in recent years, I've done most of my work on that front in the North. I was the project manager for the Mayo hydro project in Yukon through all of its planning and development stages, which included all the environmental assessment project planning, regulatory aspects, the economics, the equivalent of the NFAAT process that they have, consultation, dealing with communities, funding, all of those aspects, up until the time that the project was turned over to the construction team.

And in Northwest Territories, recently I was -- played a similar role, though starting later in the process, but for a fairly major dam redevelopment project up there for the size of their system. And on that, I was also involved in contractor negotiations and being involved in the joint utility/contractor management committee for the development of that project, which -- which just went into service last fall.

MR. ANTOINE HACAULT: And that was for the Northwest Territories Energy Corporation. Is that correct?

MR. PATRICK BOWMAN: That was actually for the Northwest Territories Power Corporation. I've also done work for the Northwest Territories Energy Corporation. That's been more on how you deal with sharing power between a regulated and a non-regulated operations, where they run a hydro plant on the same river system or, in fact, in -- in parallel, and how you deal with the regulatory and utility board implications of that situation.

MR. ANTOINE HACAULT: And have you provided support for First Nations in the early 2000s, with respect to potential claims related to past and ongoing impacts from major northern BC Hydro Electric development?

MR. PATRICK BOWMAN: Yes, that was one (1) of our clients that I was involved with many years ago. That was -- there are actually two (2) communities that were affected by the development of the Williston Reservoir in the 1960s. And we're still working on settling claims with BC Hydro. And we worked with the communities.

Others in our firm were involved until -- until the claims were finally settled in about 2007, by recollection. My -- my work was more on the -- the front end of that, in value -- valuation of damages and the like in -- in the early 2000s.

MR. ANTOINE HACAULT: And have you ever done some work for Manitoba Hydro mitigation department?

MR. PATRICK BOWMAN: I did some work with Manitoba Hydro many years ago at the mitigation department. At -- at the time, that was involved in a inquiry that was occurring, an -- an independent thir -- third-party inquiry into Northern flooding. We helped them prepare some documents. But that -- as -- I'm trying to remember the full scope of that. That's probably twelve (12) years ago now, so it's -- it's quite distant memory.

MR. ANTOINE HACAULT: And lastly, have

you provided any assistance for the -- with respect to flood plain management policies in the Red River basement -- Basin?

MR. PATRICK BOWMAN: That goes back a long way, but I was involved in some -- some work on water management after the -- after the flood of -- of 1997. My involvement ended. And -- and our firm was involved in the environmental assessment of the expanded floodway, but I had a fairly limited role in that.

MR. ANTOINE HACAULT: Next, I'd like to turn your attention to a more for -- focussed matter, and it is the extent of your experience in rate hearings as it relates to a depreciation issue.

First, let's clear up; you have not conducted depreciation studies or acted as an expert witness on conducting depreciation studies, per se, in utility proceedings?

MR. PATRICK BOWMAN: I've -- I've not done depreciation studies or drawn Iowa curves or estimated lives of plant. That's not part of my practice.

MR. ANTOINE HACAULT: Now, am I correct in understanding though that you have acted as an expert on the appropriate regulatory approach to reflecting the outcome of depreciation studies and revenue requirements and rates?

MR. BOB PETERS: Yes.

MR. ANTOINE HACAULT: And am I correct in understanding that this, in some of the hearings that you have done, has been a specific interest with respect to depreciation and the appropriate regulatory approach to reflecting the outcome of depreciation?

MR. PATRICK BOWMAN: Yes. I've been retained a number of times by different utilities and -- and Intervenor customer groups who've been faced with fairly acute depreciation problems, not to do a depreciation study but to help guide a study, supervise the work of people doing the depreciation studies, and helping companies understand what the study is telling them, and the implications, and -- and make broad policy decisions in regards to those studies or -- or, on the converse side, helping Intervenor groups understand the studies and -- and understand the implications.

And -- and it's been in that regard both utilities and Intervenor groups, but also in one (1) case working with the government. That was another aspect of my utility practice that -- that wasn't highlighted, which is I also have been involved in helping set electricity rate policies with -- with government bodies -- government agencies. And -- and that can include -- in one (1) case, very -- very much included -- due diligence review of a utility's depreciation study.

MR. ANTOINE HACAULT: I'll put -- put to you a couple areas which I believe that you've provided testimony in, firstly with respect to the 2005 Yukon Energy required revenues and related matters proceeding.

What was your involvement in providing expert evidence as it resulted -- related to, rather, depreciation studies?

MR. PATRICK BOWMAN: In that example, Yukon Energy is one of our longstanding clients and has been since they were created. Actually before they were created. And in that hearing, it was the first hearing under -- after Yukon Energy took over direct management of its own assets. And so a fairly major depreciation study was done. I was retained by the company to help them generally with the revenue requirement, and specifically to help understand and deal with the implications of depreciation.

That was -- depreciation was a fairly major focus in that hearing. It was -- it was -- there example where a company when through a change in methods. In that case, they changed from the Equal Life Group to the Average Service Life method. And -- and I was the -- the person who -- who had to deal with those questions also in -- in testimony. In that case, the depreciation expert was not -- not called to the hearing. I -- I dealt to that to the extent it arose in the hearing.

MR. ANTOINE HACAULT: Thank you. Next, I draw your attention to the 2006/'08 Northwest Territories Power Corporation GRA.

Could you explain what your role was as it regards depreciation generally?

MR. PATRICK BOWMAN: A similar role. Again, retained by the company. Again, they retained a depreciation expert to do a study. We helped the company understand some of the implications. That one ended up not going to the utility board. The decision was made, with all the issues that were going on, to leave that study at a draft stage. And -- and so although the results were conveyed in a draft form, it -- it was not a matter that made it into rates in that -- in that hearing.

MR. ANTOINE HACAULT: Next, I draw your attention to the 2012/'13 and the 2013/'14 Northwest

Tower -- Territories Power Corporation GRA.

What was your role as it regards to depreciation in that application?

MR. PATRICK BOWMAN: That was similar to the Yukon 2005 application. Again, the company retained a depreciation expert, Gannett Fleming, who did the study. I worked with the people in the company to help them make -- understand the results of the study and make decisions in respect of policy matters, guiding the study. And -- and again, the depreciation expert did not testify at the hearing. I was the one (1) who dealt with those subject matters as they were -- arose at the hearing.

MR. ANTOINE HACAULT: And who was the depreciation expert from Gannet Fleming?

MR. PATRICK BOWMAN: Mr. Larry Kennedy. He's their Canadian representative.

MR. ANTOINE HACAULT: Now, there are some hearings where I understand you also acted as an advisor, firstly with respect to the 2012 and 2013 Yukon Energy GRA.

What was your role and with whom did you work?

MR. PATRICK BOWMAN: In that example, I was retained as part of a team to help Yukon Energy again prepare what was largely a revenue requirements application. Again, they did an up -- this time, they did an update to the depreciation study, not a full overhaul. But they retained KPMG to do that work, and I was -- acted with the chief financial officer of the company in helping to guide that study. I -- I did not appear in -- in that hearing to -- to testify, but I was involved with the company in -- in guiding that study.

MR. ANTOINE HACAULT: Next, I draw your attention to the 2012 Hydro depreciation review. So the 2012 Newfoundland Hydro depreciation review, what was your role in that review and who was the consultant?

MR. PATRICK BOWMAN: That's -- in that case, I was working with an Intervenor group, the Industrial Customers of Newfoundland, again, which I noted has been one (1) of our clients for a long time. Newfoundland Hydro had come forward with an application to its board to -- to implement various aspects of IFRS. And out of that, one (1) of the aspects was some changes to the depreciation methodology. I was retained to help review that application and -- and provide advice to the customers on how to address depreciation.

That study for the utility was conducted by Gannet Fleming. On the basis of discussions with the customers, they -- and their counsel, they brought in a depreciation expert from Florida, is my recollection. We had previously been involved with the Florida board. And -- and so they had -- they took issue with various aspects of the technical parts of the study: whether the correct Iowa curves were drawn and whether the correct lives were used. And so they had expertise on those fronts from -- from the -- a consultant from Florida.

I, again, provided advice and expertise related to interpreting these results and how they would -- how they would impact things like a cost of service study and design of rates.

MR. ANTOINE HACAULT: As part of these various assignments, have you had the opportunity to review evidence on depreciation from those jurisdictions that you've identified?

MR. PATRICK BOWMAN: Yes.

MR. ANTOINE HACAULT: And as part of your preparation to be able to provide the advice that you were describing, have you reviewed literature on depreciation? And could you idef -- identify some of the key texts that you might have reviewed and read?

MR. PATRICK BOWMAN: I -- I have. I've reviewed a number of studies that were done and -- as well as assignments that were completed by -- by consultants on specific depreciation policies or -- or practices of -- of an individual utility. We referenced some of those in our evidence, like the KPMG report that was done for Newfoundland Hydro. That wasn't a depreciation study per se; it was a review of depreciation policies.

I've also reviewed, at times, some of the -- the texts that relate to -- to depreciation, like the -- there's a NARUC manual that is an attempt to summarize much of the literature on depreciation up to that point in time. I've -- I have flipped through the 1930s Robert Winfrey book; but after about Chapter 3, it gets into very specific Iowa curve matters that -- that are not an area that I -- I deal with, in terms of the -- the calculus of -- of the curves.

MR. ANTOINE HACAULT: Am I correct in understanding that you've been qualified as an expert six (6) times before this Board with respect to rate application evidence?

MR. PATRICK BOWMAN: Yes. Yes.

MR. ANTOINE HACAULT: With those questions, I propose to have Mr. Bowman qualified as an expert on the appropriate regulatory approach to reflecting the outcome of depreciation studies and revenue requirements and rates. I propose to have him qualified as an expert in rate-making principles and the appropriate regulatory principles for a Crown owned utility providing a service at cost; also to have him qualified with respect to revenue requirement analysis applicable in setting rates; and, finally, Power System planning and economics.

THE CHAIRPERSON: Thank you, M. Hacault. I'd like to hear from the Intervenors and the Applicant on this particular request.

I wonder, Mr. Williams, do you have any comments to -- to offer?

MR. BYRON WILLIAMS: We have no challenge to the qualifications as framed by My Learned Friend.

THE CHAIRPERSON: Ms. Ramage...?

MS. PATTI RAMAGE: Yes, Manitoba Hydro does have some concerns with the qualif -- with the qualification that has been requested. Manitoba Hydro has no concern with respect to Mr. qualifica -- Mr. Bowman's qualifications with respect to rate making or revenue requirement generally; or rate design, I believe; or Power System planning is not an issue, I think, before this Board.

We do have an issue with the -- reflecting the outcome of depreciation studies and revenue requirements. We also have an issue with the qualification as expert as appropriate regulatory principles for a Crown-owned utility.

And perhaps maybe we could ask some -- Mr. Bowman some questions to deal with those issues.

THE CHAIRPERSON: Please do.

MS. PATTI RAMAGE: Yes.

CROSS-EXAMINATION BY MS. PATTI RAMAGE (QUAL.):

MS. PATTI RAMAGE: Mr. Bowman, you have an arts degree in human development and outdoor education. Is that correct?

MR. PATRICK BOWMAN: That is my undergraduate degree --

MS. PATTI RAMAGE: Yes. And a --

MR. PATRICK BOWMAN: -- and -- sorry.

MS. PATTI RAMAGE: -- a master's degree in natural resource management, correct?

MR. PATRICK BOWMAN: I have -- I was going to finish. My undergraduate degree actually has a minor in mathematics, as well. My master's degree is in natural resource management, primarily focussed in the area of natural resource economics.

MS. PATTI RAMAGE: Just to be clear, no doctorate? I believe Mr. Lafond was referring to you as Dr. Bowman earlier.

MR. PATRICK BOWMAN: No doctorate.

MS. PATTI RAMAGE: You don't hold a professional accounting designation?

MR. PATRICK BOWMAN: No.

MS. PATTI RAMAGE: You are not trained in interpreting accounting standards?

MR. PATRICK BOWMAN: No.

MS. PATTI RAMAGE: You do not possess the designation of Certified Depreciation Professional from the Society of Depreciation Professionals?

MR. PATRICK BOWMAN: No.

MS. PATTI RAMAGE: And you're not a member of that society?

MR. PATRICK BOWMAN: No.

MS. PATTI RAMAGE: And you have indicated you have not conducted a depreciation study yourself.

MR. PATRICK BOWMAN: I have not conducted depreciation studies at all.

MS. PATTI RAMAGE: And when you were -- you -- you referenced a number of appearances before other regulatory boards. You were qualified as an expert on revenue requirement before the Yukon Utilities Board.

Is that correct?

MR. PATRICK BOWMAN: Yes. I was appearing as a company witness, and I'm trying to recall if we actually had specific qualifications set out. I -- I don't recall, but it was -- as a company witness sometimes the -- the tendency to specify an -- an area of expertise can be a little bit less of a focus.

MS. PATTI RAMAGE: Okay. I'm just looking at page 1 of your resume. It says you appeared before the Yukon Utilities Board as expert on revenue requirement matters.

MR. PATRICK BOWMAN: Yes.

MS. PATTI RAMAGE: Is that right? You've been qualified as an expert in cost of service rate design and system planning by the Northwest Territories Public Utilities Board?

MR. PATRICK BOWMAN: Again, it would've primarily been as a company wit -- actually, entirely as a company witness. And so my -- my recollection of what exactly the -- the framing was put in escapes me. But -- but it would have been covering those areas;

load -- load analysis for sure.

MS. PATTI RAMAGE: Okay. When I look back at your previous appearances before this Board, it appears you've been qualified as an expert in cost of service and rate-design matters.

Is that correct?

MR. PATRICK BOWMAN: For sure those two (2) areas. My recollection is that there were some other matters added at various times, but you could -- I couldn't quote you on it.

MS. PATTI RAMAGE: You haven't provided evidence with respect to depreciation in -- in any of these jurisdictions.

Is that correct?

MR. PATRICK BOWMAN: Well, as I noted, it's generally involving appearing with the company panel. And the way that these hearings are usually approached in places where we work is you don't -- it's not that there's a general rate application and then a tab that's the InterGroup evidence, or Mr. Bowman's evidence.

We work integrally with the company. And -- and there's only one (1) rate application filed, and different witnesses will cover different parts of the -- of the application. But you won't find a tab of

Mr. Bowman's evidence in any of those -- in any of those proceedings.

MS. PATTI RAMAGE: And you haven't been qualified, you indicated, as an expert in depreciation in any of these jurisdictions.

But you have not been qualified as an expert in the appropriate regulatory approach to reflecting the outcome of depreciation studies in any of these jurisdictions either, have you?

MR. PATRICK BOWMAN: I'm -- I'm not sure that wording was ever used before. As I said, you know, I was in -- for example, in Yellowknife, what are we at, about six (6) months ago for a general rate application. And -- and there was a company panel who spoke to the GRA. I sat with the company panel. And -- - and it was made clear that I was the one speaking to the matters related to the depreciation study.

I don't believe that there was any specific qualifications of anyone on the panel to narrow aspects of the application. It's just a matter of who speaks to which areas.

MS. PATTI RAMAGE: Mr. Bowman, I've noticed in your -- in your resume, for a number of the -- the utilities that you spoke of this morning, you have included, for example, at page 1 of your resume, that you've -- you have a reference to depreciation studies for the Yukon Energy Corporation, 1998 to present.

Is that correct?

MR. PATRICK BOWMAN: Yes, but that's -- as I said, that's been a client that I've worked with pretty much continuously for fourteen (14) years. So you won't find on the resume, necessarily, a list of what occurred in what era. It's -- it's more broadly.

If you want to see the hearings, you'd have to go to the -- the attachment which lists each individual hearing. But again, that -- when you're testifying with the company panel, especially in a place like Yukon, you kind of have to help cover the waterfront. There's a lot of issues for -- for a small company.

So I -- I don't think you'll even find depreciation, perhaps, listed there. I think you would have to go to a -- to a transcript and look at how the information was dealt with.

MS. PATTI RAMAGE: Depreciation is listed in your resume, correct?

MR. PATRICK BOWMAN: Yes.

MS. PATTI RAMAGE: And when I look at your 2010 resume for that same client, the wording is virtually identical, but the word "depreciation" does not come up in your previous resumes; it was added for this hearing.

Is that correct?

MR. PATRICK BOWMAN: Yes. We do a review of the resumes before filing each application we're involved in and -- and make sure that they're -- they're tailored to the issues that will be dealt with are -- we're not in the habit of producing CVs, like -- like academic professionals, that are forty (40) or fifty (50) pages long. We end up, in our profession, dealing with a lot of different issues. And -- and so you try to make sure that you -- you can tailor it. Not a lot of -- not a lot of people want the long ones.

MS. PATTI RAMAGE: But you do put the important points of any process in, correct?

MR. PATRICK BOWMAN: You put in matters that are relevant to the -- to the people you're preparing the resume for. I -- I don't think it's -- that there's a universal importance. I think it's -- it's a question of which -- which proceeding you're in and -- and what are the matters that are likely to be of -- of significance in that hearing.

I don't think you'll find on this resume, for example, that -- that I've done a lot of work on -- on loss of load expectation and capacity planning for utilities, but I have appeared on panels related to that and -- and provided testimony. But it's not something we deal with in this hearing, so I don't think you'll -- you'll find specifically references to -- to something like LOLE studies.

MS. PATTI RAMAGE: But depreciation is a matter that has been incorporated into any -- all financial statements of this Corporation and any other utility in any rate hearing.

Is that not correct?

MR. PATRICK BOWMAN: Absolutely, absolutely. I -- I can't recall having reviewed a depreciation study for Manitoba Hydro before. I do believe they were filed. But in the previous six (6) appearances, I -- I don't think it ever -- it ever made our -- our cut of issues that were of likely importance to the clients or that were -- that were a primary concern.

MS. PATTI RAMAGE: Mr. Bowman, if I -- I heard you a moment ago, you -- in describing your work at Yukon, you said that there are many, many issues that you deal with there.

Would it be fair to say you're a generalist when you're there?

MR. PATRICK BOWMAN: We -- we cover a wide range of issues. I -- I'm not sure I -- I would put definitions on it specifically one way or another. I -- the appearances before a board are usually premised on -- on having a certain level of information about the topic you're there to testify to. So I -- I'm -- I'm not sure "generalist" is entirely correct, but I suppose it depends on the definition you're using.

MS. PATTI RAMAGE: Well, would it be fair to say you are assisting a utility employee in performing work perhaps similar to the nature of Mr. Rainkie or his back-row participants?

MR. PATRICK BOWMAN: Well, there's a big difference between a utility that has eight thousand (8,000) employees and one that has a hundred. So, yes, we were retained by the utility to help deal with a general rate application. We will scope those issues early on. We'll make some decisions about who's dealing with -- with which topics, and -- and we'll go forward in teams to try to make sure those get dealt with.

And I think you're welcome to -- to follow up with transcript or the -- or the clients, but I don't think you'll find any -- any debate about the fact that -- that in the hearings noted, I had a fairly substantial role in -- in depreciation, and I may not have had a fairly substantial role in, say, interest cost forecasting. That wouldn't have been one of the areas where I would have -- where I would have dealt with, so...

But it's a -- it's a bit of a different environment when you're -- when you're dealing with a utility that's -- that's of that scale.

MS. PATTI RAMAGE: Mr. Bowman, in your response to Manitoba Hydro/MIPUG First Round 9, I believe you indicated that you provided testimony for the utility in the Northwest Territory Power Corporation's 2012/'13 thir -- and '13/'14 GRA.

But would I be correct that your testimony was not on depreciation? Mr. Kennedy appeared as the expert depreciation witness at that process?

MR. PATRICK BOWMAN: No. In fact, Mr. -- Mr. Kennedy prepared the depreciation study, and I -- I played a role with the utility in guiding that study. The -- the treasurer was the main utility representative, so I worked with -- closely with him and providing advice to the chief financial officer.

And so Mr. Kennedy completed the study,

but Mr. Kennedy did not appear to testify to that study. There was only one (1) company panel. And you can -- like I said, I'm happy to track it on the transcript if it helps you. But in respect to their duties of the company panel, depreciation was -- was one (1) of the areas I was there to speak to.

MS. PATTI RAMAGE: And, Mr. Bowman, you've indicated also -- or your counsel's requested you be qualified as an expert in appropriate regulatory principles for Crown-owned utilities.

Would you agree that the regulation of rates in Manito -- in Manitoba is fairly unique, in terms of the jurisdiction of this Board?

MS. PATRICK BOWMAN: Yes. It's actually on page 2 of the direct that we're expected to get into here. Absolutely, it's -- it's unique. I don't know that there's that many jurisdictions who are running around, saying, We're not unique. But -- but there are some specific aspects here that -- that have to be well understood and that it's taken us, you know, a lot of years to help educate people about.

MS. PATTI RAMAGE: But that uniqueness is derived by virtue of the jurisdiction granted under the Crown Corporations Public Review and Accountability Act.

Is that not correct?

MR. PATRICK BOWMAN: That's one (1) unique aspect of regulation of Manitoba Hydro.

MS. PATTI RAMAGE: And another unique aspect would be the exemption under (2) of the Manitoba Hydro Act from regulat -- from the normal regulation powers of the Public Utilities Board.

Is that correct?

MR. PATRICK BOWMAN: That's not as unique. That's the first part. Exemptions -- Crown utilities are fairly unique creatures. They're -- when you get into regulation of utilities, you have a basic rationale for wanting to do it that relates to economic and technical and -- and legal monopolies that are provided and -- and fairly broad powers that a utility has and fairly solid protections, because they don't have competitors.

Any given customer usually, particularly with respect to their wires, doesn't have any choice with who they deal with. And so governments will set up framework to ensure that there are systems to make sure those rates are fair.

When you go to jurisdictions that have a Crown utility, those same governments may look at the situation quite a bit different and say, in this case, I'm not trying to make sure that -- that a bunch of investors in a private utility -- take your pick, ATCO, Fortis, whichever it is; I don't have to be concerned about the investors' motives.

So the form of regulation of Crowns is -- is often different than the form of regulation of private utilities. For example, in Yukon, there's no automatic requirement for the utility board to review capital projects. In BC, there's a substantial framework for the government to provide direction to the utility board in how BC Hydro's regulated.

And that -- that's not uncommon because utilities, in a way, are, in part, a tool of -- of public policy, rather than simply being -- the situation may go to Alberta or -- or something, where they're -- they're really just a service provider who's there to earn a return.

So it's not at all unusual that -- that a Crown utility will have a different regulatory framework than you might find for -- for a private sectors, and -- and they'll vary in -- in how broad the role of a utility board is, but it's rarely, rarely as -- nearly as broad as it is if you're trying to keep tabs on -- on a utility where you're -- you're both trying to ensure fair and efficient service and trying to guard against abuses of monopoly power.

MS. PATTI RAMAGE: Mr. Bowman, you'd agree that in Manitoba this Utility's regulatory framework is set out by statute and that you are not a lawyer?

MR. PATRICK BOWMAN: Yes, I'll agree with both of those.

MS. PATTI RAMAGE: Okay. Mr. Chairman, I -- quite frankly, I -- I look to Ms. Southall as to the next step. I had prepared to make a very brief submission no Mr. Bowman's qualifications. I'm not sure what the next step is. This is somewhat unprecedented for Manitoba Hydro.

THE CHAIRPERSON: Would you -- would you mind, Ms. Ramage, just encapsulating what --

MS. PATTI RAMAGE: The concern?

THE CHAIRPERSON: -- we have been talking about in very fairly broad terms?

MS. PATTI RAMAGE: Yeah.

MS. ANITA SOUTHALL: Mr. Chairman, sorry for interrupting you, sir. May I just ask a couple of follow-up questions? Thank you.

MR. BYRON WILLIAMS: And, Ms. Southall, just when we -- when we do get to the process, I certainly have some submissions that I'd like to be heard on this one.

CROSS-EXAMINATION BY MS. ANITA SOUTHALL (QUAL.):

MS. ANITA SOUTHALL: Mr. Bowman, I've been following the brief testimony on your qualifications. Can I just go back and revisit the various tribune -- tribunals you identified where you were involved in some sort of testimony associated with depreciation evidence? I think this may be in the Yukon, Northwest Territories, and perhaps even Newfoundland.

Would those be the three (3) jurisdictions, sir?

MR. PATRICK BOWMAN: Those are three (3), but in different -- in different ways. So if -- if you're -- that's where you're heading, then perhaps I'll stop there. Otherwise, I would like to elaborate.

MS. ANITA SOUTHALL: And can you tell me if you were personally qualified by each of those panels on the interpretation or extrapolation from depreciation studies?

Like on that specific aspect of it, were you actually qualified as an expert by those tribunals?

MR. PATRICK BOWMAN: I'll go back to the elaboration. In -- in Newfoundland, as I said, I advised clients, but -- but I was not part of a -- a proceeding. And in fact there was -- there was no hearing on that. There was a negotiated settlement between the parties. So it -- it never got to the point of anyone being qualified. But I -- I hadn't submitted evidence. I was -- I was solely acting as an advisor.

In -- in one (1) of the other examples we gave, the Northwest Territories, where I was working with the government in -- in one (1) of the instances, the government had hired a committee to do due diligence of the utility's application before it was filed. So we worked with that due diligence committee to help them understand the depreciation study that had been prepared. So again, it wasn't -- I wasn't before a tribunal.

Going specifically to appearances before tribunals, it would be Northwest Territories and Yukon. And I -- I was going to say to the -- I have probably been before those tribunals ten (10) different times, and I don't believe I've ever been specifically qualified, sort of line by line, on -- on any particular items. It's just not a -- like I said, when you're appearing on a company witness in a panel, it's not an item that -- that those -- those Boards -- or the steps that they go through.

MS. ANITA SOUTHALL: Thank you, sir. And my last question is, do you have any specific education associated with the interpretation of depreciation studies, beyond your reading of literature and whatever experiential knowledge you may have, sir?

MR. PATRICK BOWMAN: No, it's -- it's all experiential.

MS. ANITA SOUTHALL: Thank you, Mr. Chairman. I think it -- unless the panel members have any specific questions of Mr. Bowman, we'll maybe take that as the next step.

MR. RAYMOND LAFOND: I just have one (1) quick question. Mr. Bowman, you referred to at a point in your testimony, your comments that -- you said, "our profession."

Which profession were you referring to?

MR. PATRICK BOWMAN: It hasn't been a very long morning yet, and I'm already losing track of which response that would have been. The area in which I practise is primarily involved in -- in utilities and -- and the economic and policy side of -- of utilities' rate making and -- and project development.

I don't know that it's a -- it's a large group of peers that we -- that I -- I'd be associated with in -- in those areas. But -- but generally, people who practise before these forums, who come from a -- an economics background as opposed to an accounting or a -- a legal background, would have a -- I -- I believe that question may have been in regards to -- to law and interpreting the law.

Generally, those people do not have a law degree in order to formally interpret laws. But at the same time, the laws (sic) is reflecting a policy framework, and -- and a lot of the words have meanings to an economist. And -- and you have to look to those laws and to that framework in order to figure out how you can then reflect the intent or the -- or the policy direction into something like -- like rates, which is what we're about at the end of the day.

And so I think in that -- if -- if I made the comment about "our profession," I would have been speaking of -- of people who -- who come from an economics background who are -- who are, in this example, fundamentally practising in respect of rates and fairness tests for rates, and how they -- how, although they are not lawyers, there's a -- there's an absolute requirement to be able to understand the -- the policy framework or the -- or the -- the meaning of the -- the words to an economist that are in the acts, even if they aren't necessarily the same meanings or same -- same arguments you hear before a -- a court on those same acts.

THE CHAIRPERSON: Mr. Williams, would you like to comment, please, on the qualifications of this...?

MR. BYRON WILLIAMS: I'm certainly prepared to. I'm not sure of the appropriate order, Mr. Chair, and -- and...

THE CHAIRPERSON: I'm sorry about that. Ms. Ramage...?

SUBMISSIONS BY MS. PATTI RAMAGE (QUAL.):

MS. PATTI RAMAGE: This mic is quite something. It doesn't want to go on and it doesn't want to go off. You've got it. It may help to have Manitoba Hydro's comments, because it may provide a perspective of what our concern is. And, to be clear, Manitoba Hydro is not suggesting in any way that Mr. Bowman's evidence is inad -- inadmissible as we've seen it to date, or ought to be struck, or anything along those lines.

What Manitoba Hydro is requesting that his -- Mr. Bowman's expertise be properly recognized as being in revenue requirement, rate design, and cost of service. Manitoba Hydro has a great deal of respect for Mr. Bowman in these areas. We don't always agree with Mr. Bowman in these areas, but we have a great deal of respect for his opinions in these areas.

We also accept that he has general knowledge of the impacts of depreciation, but it's Manitoba Hydro's view that it's not appropriate to attach to that general knowledge, acquired through sitting on panels where depreciation was reviewed as an issue with other depreciation experts, the authority associated with the term "expert".

Manitoba Hydro's revenue requirement is derived based on the expertise of multiple professional disciplines. In virtually every hearing I've participated, it's included the testimony of professional accountants and professional engineers and other specialists.

We have never seen before a witness attempt to qualify themselves, for example, as an expert in revenue requirement and accounting -- and the accounting treatment of, but yet that's what the expertise of revenue requirement is, is looking at the accountant's work as it applies to revenue requirement. It's looking at the engineer's work as it applies to revenue requirement. And it's, in this case, looking at a depreciation consultant's work as it applies to revenue requirement.

But our concern is with elevating that -- that information that we are hearing, and Mr. Bowman has heard before, to the level of expert in that area. And we think that ought to be reserved for the people with those designations. And we shouldn't try to cross-pollinate those issues.

Mr. Bowman is an expert in revenue requirement. There's many components that go into revenue requirement. If he wishes, we accept he has general knowledge of the impacts of depreciation. But our concern is putting those two (2) terms together: depreciation and expert, and qualification as an expert.

On the issue of -- the second issue, which was regulatory provincials for -- principles for Crown-owned utilities, Manitoba Hydro is of the view that those regulatory principles in Manitoba are set out in the Crown Corporations Act, and this utility and this Board is guided by that legislative framework. It is not guided by textbooks.

It is not guided -- those are the regulatory principles in -- in this province. Certainly witnesses will testify as to what various academics have said, what other regions have said. But the expertise to guiding this -- that matter is in law, and it ought to come in final submissions.

Again, we have no -- no issue with Mr. Bowman providing his evidence on that. It's attaching that he's an expert in that area, because I think that expertise will be left to the lawyers in final argument, to such extent that those issues arise.

THE CHAIRPERSON: Mr. Williams...?

SUBMISSIONS BY MR. BYRON WILLIAMS (QUAL):

MR. BYRON WILLIAMS: Yes. And I -- and I thank My Friend, Ms. -- Ms. Ramage, for clarifying the -- that they're not objecting to the admission of the evidence. That is helpful. Mr. --

THE CHAIRPERSON: Could you repeat that, please?

MR. BYRON WILLIAMS: As I understand from Manitoba Hydro, they're not objecting to the admission of Mr. Bowman's evidence. They're objecting to the characterization of some his expertise. And I think that's an -- an important clarification, which -- which I appreciate.

Mr. Chairman and -- and members of the panel, just to back -- perhaps back up to first principles. Certainly, when one looks to qualifying a wit -- a witness as an expert, one looks at, in -- in our client's submission, two (2) essential criteria.

One (1) is: Are they independent? Do they -- are they able to form an independent judgment? And then: Do they have an expertise that is of -- available to the tribunal or the decision-maker that is not ordinarily -- or not generally available? So it -- it's something that they can add to the deliberative process beyond general -- beyond general knowledge.

When my client -- and certainly, as -- as we've observed, both Mr. Bowman, in -- in hearings before this tribunal and also his voir dire this morning as well as the reviewing his curriculum vitae, it appears to our clients that the -- at the heart of Mr. Bowman's expertise is expertise in natural resources economics and in regulatory economics.

His degree -- his degree gives him the natural resources economics expertise, and with that master's levels work, of course, the -- the ability to -- to analyze statistical and economic information. His experience over fourteen (14) years in a really broad range of jurisdictions has, in our client's respectful submission, given him that insight into regulatory economics.

And -- and certainly, the -- we note that he has extensive experience with hydroelectric utilities, including this -- those which are Crown-owned hydroelectric utilities. And that experience, certainly from our client's perspective, gives him insight into the unique nature of -- of Crown-owned hydroelectric utilities, whether that's the concept of patient capital, whether in the Manitoba context it's the debt guarantee fee, but the -- the very intensive, long-term capital investment.

Certainly, I would have to disagree with my -- My Learned Friend, Ms. Ramage, that regulatory principles or the regulation of a Crown-owned utility is a lawyer's monopoly. I certainly do accept her submission that -- that one has to take guidance from the statutory regime. But it -- the concept of a just and reasonable rate, which lies at the heart of the Public Utilities Board's mandate and which lies at the heart of our legislative regime in Manitoba, at its heart, it's an economic concept.

I don't want to dis -- disrespect the -- the accountants either, but I'm just -- there -- there is -- a lot of that flows from over a hundred years of the examination of: How do we regulate a monopoly? And if one thinks of Mr. Wiens from Manitoba Hydro, probably the foremost expert on regulation from Manitoba Hydro's perspective -- an economist, by the way -- and one thinks of the texts that he cites, in terms of relying on regulatory principles, it is Bonbright. And no one would ever dare suggest to Mr. Bonbright, who's passed away some twenty (20) to thirty (30) years ago, that he was a lawyer. That is an economics text at its -- at its heart. Those core principles are economic texts.

So certainly, in terms of the criticism of Manitoba Hydro or the suggestion that somehow Mr. -- Mr. Bowman's expertise is -- as an economist and a regulatory economist, excludes him from talking about those regulatory principles, we would respectfully disagree.

From our client's perspective, the tighter call is in terms of how we characterize Mr. -- Mr. Bowman's perspective, in terms of the depreciation issue. The words that I -- that I used in -- in our opening comments, we didn't object to his characterization as an expert as framed. And -- and we maintain that position.

Mr. Bowman is -- is not saying to this Board that he's an expert in -- in the practice of Iowa curves. And -- and frankly, if you looked at Mr.

Kennedy's resume and his, you know, his undergraduate work, you would see that, you know, his expertise in that regard is computer generated.

Mr. Bowman is speaking to a -- a more practical issue of understanding how these depreciation concepts and results are -- are applied in a regulatory cons -- construct, melding the knowledge of depreciation results, some statistical insights, as well as regulatory principles.

And so we would agree with Manitoba Hydro if they're suggesting that Mr. Bowman is not an expert in depreciation, but we certainly take issue with the more narrow characterization of his expertise.

Mr. Chairman and members of the panel, for what it's worth, those are our client's comments.

(BRIEF PAUSE)

THE CHAIRPERSON: Mr. Hacault...?

SUBMISSIONS BY MR. ANTOINE HACAULT (QUAL.):

MR. ANTOINE HACAULT: Thank you, members of the Board. I want to go back to specifically what I was seeking to have Mr. Bowman qualified in. And you may recall in my questions of

Mr. Bowman, when I'm speaking about depreciation, I was not asking him to be qualified as a depreciation expert.

There's, in my respectful submission, a big difference between asking Mr. Bowman to be qualified as a depreciation expert and asking him to be qualified on the issue of the appropriate regulator approach to reflecting the outcome of depreciation studies. We've seen that the depreciation studies can either front load some of the depreciation. They can be straight line. They could be sinking fund.

Those outcomes have an impact on who bears the cost of paying the rates and when they're paid. It's more a timing issue. So that Mr. Bowman, as has been explained in his testimony, has provided advice and insight, both in hearings and have been retained by clients to provide advice on that very specific issue: How do you deal with the outcomes of a depreciation and the timing of the expenses that get put in?

I agree with Mr. Williams that if we look in textbooks that we have on expert evidence, there's two (2) criteria; firstly, the independence. And I think that I would suggest there's no doubt about that. He's -- Mr. Bowman's been accepted, both evidence on behalf of utilities and of customers. And he's appeared before this Board, and his independence has never been criticized at all.

The second part is whether, as a result of experience -- you don't need to have a degree -- whether experience can provide any information that might be useful to this Board that wouldn't be in the knowledge of a person walking on the street.

If you go and ask somebody on the street, How do you deal with these -- a sinking fund approach, how do you deal with an ASL approach, how do you deal with an ELG approach, the results of those studies, and how do you deal with them when you're going to set rates, when do you put them in rates and what happens; I think it's fair to suggest that you can ask twenty (20) people, and they would have no idea, because they have no experience and no knowledge in that area.

Mr. Bowman has been involved in this area and providing and providing testimony since 2005. So the reason why we seek to have somebody qualified as an expert is because they have, because of their experience or sometimes because of their degree, specialized knowledge which can be of assistance to a board or to a court.

And so that there's also issues with respect to when we talk about when that gets put into rates, those are intergenerational equity issues.

And this leads me to also disagree with Ms. Ramage that rate regulation, you only find the answers in the statute. I totally disagree with that, and that you have to be a lawyer to understand what you have to do in rate making. The last panel of this PUB had no -- had one (1) lawyer on it. This panel does not have any lawyers on it. Is it because this panel doesn't have any lawyers on it, it can't make a decision on rate-making principles?

The rate-making principles also -- and -- and that was also exemplified by some of the comments of Mr. Williams -- you don't find them all in the statute. There are leading texts which are relied on by rate regulators throughout North America. One is Bonbright.

And those economic theories on how rates get assessed -- firstly the revenue requirement; secondly the cost of service allocating the cost to the proper class and not discriminating between the classes; and rate design -- those general principles and guiding issues aren't all found in the statute.

And that's not unusual in the legal

sense because -- and this is back to what I was teaching the students about two (2) weeks ago at the university -- our system of law is you have general principles. Those may be changed or modified somewhat by a statute, which is what's happened here, Crown -- the Crown Corporations Utility Act. And also in the Manitoba Hydro Act there -- there are some -- there is some guidance in that legislation as regards rate setting.

So to say that Mr. Bowman has to be a lawyer and can't testify with respect to appropriate rate-making principles related to a Crown utility, I suggest, is incorrect.

Dealing with the second qualification, which is the rate-making principles as applicable to a hydroelectric Crown-owned utility or -- my specific wording was:

> "Rate-making principles for an appropriate reg -- and appropriate rate-making principles for a Crown-owned utility providing service at cost."

You can see from Mr. Bowman's experience that he brings a perspective which has not yet been brought fully to this hearing. I did some cross-examination on that, pointing out what happened in this jurisdiction, what happened in that jurisdiction.

But there has been nobody in this room that has, again, the specialized knowledge through experience that he's had over the last fourteen (14) years that can explain to this Board what's happening in other jurisdictions in -- in which he appears and in which InterGroup provides advice.

So that -- again, going back, does Mr. Bowman have knowledge that somebody on the street if you go talk to them all, what's happening in BC, what's happening in Northwest Areas, what's happening -- he can provide answers to member Lafond's questions on the Mayo plant because he was involved in that. He could have answered it right away. Hydro witnesses couldn't. They had to go back.

He -- he was involved in Newfoundland. He understands exactly what happened with respect to those proceedings. He provides advice there. So he has knowledge from across the country and brings this Canadian perspective to Manitoba proceedings and how Manitoba, with its specific context of cost of service and not a rate of return, fits into all of that.

And it gets perhaps into some of the questions that the Board Chair asked the other day.

Well, what do I say to ratepayers who ask me, Well, in Ontario they did this, in BC they did this, in other areas they did this? Mr. Bowman can bring that unique perspective because of his knowledge in appearing in front of those different areas and can help provide advice to the Board that's not known anywhere else.

You're not going to find it in textbook. You're not going to find a certified professional that's going to have this. But by virtue of his fourteen (14) years of experience, he has specialized knowledge which can assist this Board. So that's why we were suggesting that he also be recognized as an expert in rate-making principles and appropriate regulatory principles for a Crown-owned utility providing service at cost.

(BRIEF PAUSE)

MR. ANTOINE HACAULT: I'd just like to close as my --

THE CHAIRPERSON: I'm sorry, what'd you say?

MR. ANTOINE HACAULT: Ms. Ramage acknowledged that Mr. Bowman had specialized knowledge in revenue requirements. Well, revenue requirements, as we've seen over the last two (2) -- couple of weeks, are comprised of several components. But at one (1) point in time, and there -- there's an interaction that's been happening on that, somebody has to provide context with respect to different parts of revenue requirements and how those can, or should, or maybe should not, fit into a revenue requirement.

It's looking at those items, looking at what's happening, based on his economics background, theory, and experience, to provide some insight and some practical, specialized knowledge as to how people -- how we can look at that in Manitoba, and how that compares to other areas of the country.

THE CHAIRPERSON: Ms. Ramage, did you want to provide any other commentary?

SUBMISSIONS BY MS. PATTI RAMAGE (QUAL.):

MS. PATTI RAMAGE: Only two (2) brief points. And one (1) is, what I heard from Mr. Hacault was that -- that Mr. Bowman would be providing advice on the -- the outcomes of a depreciation study and, again, how it impacts revenue requirement. That is not Manitoba Hydro's issue. The issue would go more to, for example, providing ice -- advice to this Board on the merits of ASL versus ELG, that sort of thing.

That is not his expertise. That is where we believe he is a generalist. If sitting in a hearing and sitting in these processes makes him an expert, Mr. Rainkie's an expert. Arguably, I would be; and I could guarantee you I'm not.

And then the other point would be in terms of rate-making principles. Mr. Bowman -- I accept he can certainly testify to the other jurisdictions he's been in. But to say he's an expert of -- of regulatory principles across the country, he is -- he can provide advice as to his experiences in other jurisdictions. Again, no issue.

But to suggest across Canada he has -- Mr. Bowman hasn't been in every jurisdiction. And I don't believe he's studied it any more than Manitoba Hydro has. We constantly attempt to monitor what's going on elsewhere, do our best job. Do we know everything? No. Would we be qualified as experts in it? I don't think so. And I don't think it's appropriate.

"Expert" is a very important word. That's -- that's the key. Generalist and -- and excellent working knowledge? Yes. But an expert is something different from someone who has sat through these processes. And that's our concern, because once you attach expert to a -- to any piece of evidence, it elevates that evidence. And that's where our concern comes from, not the evidence itself.

THE CHAIRPERSON: I would like some more questions -- to ask more questions directly of Mr. Bowman.

Mr. Bowman, I thought I heard you say that you had worked with one (1) of the -- one (1) of your clients in giving guidance, or at least to prepare for a depreciation study that was done by an outside expert.

Is -- is -- did I hear that correctly?

MR. PATRICK BOWMAN: More than one (1). Yeah, in almost all of the cases we're talking about I would have been working with the senior management of the utility or the -- or the technical people at the utility as well, in some cases -- always the senior management -- in preparing for -- in retaining, in setting the work plan, in providing guidance through the work plan, and in interpreting the results, and in making policy decisions, all of which guide this -- the -- the depreciation study that's conducted.

THE CHAIRPERSON: Now, the -- the -- so the expert came into the entity, did the depreciation study, and then in terms of -- what work did you do with respect to addressing the recommendations that you received from the depreciation expert?

MR. PATRICK BOWMAN: Well, I think you'll find, if you look to something like Mr. Kennedy's work here, depreciation studies aren't -- aren't always undertaken the same way as something like an engineering study, where you hire someone to design you a bridge or something of that nature. They're -- they're an iterative process, and they involve a utility's own data, and they involve a fair number of what I will call policy decisions and my clients call policy decisions through the course of conducting the depreciation study.

And a good example here is something like the net salvage. Mr. Kennedy's report, we have various drafts of his reports, and at various times it had net salvage in it. And Mr. Kennedy testified that in his -- in his practice, he -- he generally recommends to clients that they include a net salvage in their rates. But at some point during that process, Manitoba Hydro made a decision, a policy decision, not to include net salvage in the study. And the final results of the study don't have net salvage.

It's not -- so it's not just you sort of set them off on their way and they come up with the recommendations. You come back with a nicely bound study that you then figure out what to do with it. It's -- it's how do you interactively deal with things like making those policy decisions at the utility level to guide the study through -- during the conduct of the study. And that's where I've been, as I said, quite -- quite involved with the senior management of the various utilities, trying to help them sort out those decisions that need to be made.

There's a -- there's a view that will come from people like Mr. Kennedy. There's a view that will come from -- from other aspects of the -- of the company. And somehow, they have to sort this out, because it has impacts on not just depreciation; it can have impacts on rates, it can have impacts on cash flow, it can have impacts on -- on future liabilities, it can have impacts on all sorts of aspects in the company that they have to weigh.

THE CHAIRPERSON: Now -- now -- so the depreciation study is completed, there's an outcome. Did you appear before a utility regulator to commen -- to comment upon the -- the impact of the selected outcomes? In other words, as a selected outcome is a result of a study, you go in front of a regulator.

And did you ever appear before a

regulator to talk about the impact of that particular selected outcome?

MR. PATRICK BOWMAN: Yes. And the example I gave that probably had the liveliest debate was the case in Yukon in 2005, where the utility made the decision to move from an ELG approach to an ASL approach. That was a matter for review before the utility board. It also made the decision to include net salvage in its proposals, and that was a matter for debate before the utility board.

Mr. Kennedy's the one (1) who conducted the study. He did -- he didn't appear. The utility was there to answer for it. And the main reason the utility and -- and us working with the utility was there to answer for it was because the main issues of debate weren't technical; they were policy. They were a choice of an ELG versus an ASL approach, in that case, was viewed as a policy decision, and the utility had to answer for why one (1) approach suited its operations better than the other. They could have told Mr. Kennedy to go left or right, and he would prepare the study that suited that approach. And he would be the only person who was qualified to prepare that study.

The utility also made the decision that, based on policy considerations, it was going to propose that it continue to conduct net salvage in its rates. And -- and that's what it proposed, and that's what we testified to. And that one (1), at the end of the day, the utility board disagreed. And it said, No, no more net salvage in rates. So it agreed with the ASL. It didn't agree with the net salvage proposal.

And -- and they were both reviewed heavily at the hearing. And -- and I would have been the -- the person who was most versed with the subject and would have done the primary amount of testimony on -- on the review of those policy decisions. Although -- well, at the end of the day, the company ultimately, of course, had to answer for the policy decision it made.

THE CHAIRPERSON: Now, I think the -- unless there are other people who would like to comment here, the advisors would like to comment -- I'm sorry, the legal counsels would like to -- to speak, I would suggest that we recess for fifteen (15) minutes so the panel can deliberate on this issue. And after we break, we'll come back with a decision with respect to this disputed matter. So let's take -- let's resume proceedings at twenty (20) to -- to 11:00.

--- Upon recessing at 10:20 a.m.

--- Upon resuming at 10:47 a.m.

THE CHAIRPERSON: We'll resume the proceedings immediately.

RULING (QUAL.):

THE CHAIRPERSON: The panel has met and considered what has heard -- what it has heard from the Intervenors and the Applicant and Mr. Bowman in respect of the disputed matter.

The panel has concluded that Mr. Bowman is not an expert -- recognized expert on depreciation. However, Mr. Bowman has demonstrated to the satisfaction of this panel that he has experience in analyzing depreciation studies and addressing the outcomes of those depreciation studies for rate-setting purposes. The Board will allow his evidence -- pardon me -- will allow his evidence to be -- to be heard and determine the weight to be given to his testimony.

Mr. Hacault, we're prepared to allow you to -- your witness to go through the subject area as you have identified for examination.

MR. ANTOINE HACAULT: Just so I'm clear, Mr. Chair, there were two (2) disputed qualifications that were being suggested. The first one was with respect to the appropriate regulatory approach to the outcome of depreciation studies and revenue requirements. And the second one was with respect to appropriate regulatory principles for a Crown-owned utility.

Does -- I didn't understand the Chair's comments to deal with the second item. I'm not -- maybe I misunderstood.

MS. ANITA SOUTHALL: Just to clarify, I believe the panel has found that it's appropriate, Mr. Hacault, for you to take your witness through those disputed areas, as well as the other areas you'd identified.

So I believe the Chairman's comments at the end were intended to reflect that you should proceed in all of the areas that you'd identified with your witness, and they'll determine what weight ultimately to give to it in their deliberations.

MR. ANTOINE HACAULT: Thank you.

EXAMINATION IN-CHIEF BY MR. ANTOINE HACAULT:

MR. ANTOINE HACAULT: Now, Mr. Bowman, before we get into the specific testimony related to this GRA, there was a PUB/MIPUG-25 which went through the type of work that InterGroup does for Manitoba Hydro. Could you elaborate a bit on the type of work that InterGroup does for Manitoba Hydro? I know in your direct you indicated that you personally haven't done any work over the last bit.

But could you just deal with that particular issue?

MR. PATRICK BOWMAN: Yes. The -- the reference was a PUB question to me, number 25, and it highlighted that the firm, InterGroup, who I work for, is retained by Manitoba Hydro from time to time, is presently retained by Manitoba Hydro to work on matters of environmental assessment. And in that regard, it is largely, if not entirely, limited to socioeconomics -- what we call socioeconomics; so impacts of projects on people, communities, public involvement, as well as an approach to regulatory principles.

And -- and our firm will assist Manitoba Hydro in -- at -- at times in preparing documents and assessments of -- of new projects, such as transmission or generation and its impact on local communities, or -- or -- the -- the range of things that are covered by -- by what they call socioeconomic impact assessment. So what is an impact on community life, or employment levels in communities, or that type of thing.

None -- none of it is related to NFAATs, or -- or rates, or economics of projects, or any of those matters.

MR. ANTOINE HACAULT: Okay. Thank you. Now, we've had about -- I don't know where we're at -- twenty (20) days of hearing or so, about fifteen (15) or sixteen (16) of which was evidence of Manitoba Hydro panels.

Could you outline what your assignment was for -- was in reviewing this GRA?

MR. PATRICK BOWMAN: Yes. And I -- in the pre-filed testimony that we prepare, we make a point of explaining the assignment and the framing of the assignment so that our -- our starting point, if you like, the foundation we look to build upon, is -- is clear from the outset. It's not just a matter of looking at some documents and making a decision; it's a question of where do you start from is the principles that's going to guide your work.

So we've been retained by the Manitoba Industrial Power Users Group. They've been a client of ours for -- of InterGroup's for -- since the late '80s. I've personally worked on -- on MIPUG matters since the late '90s and appeared here six (6) times before on their behalf.

In each case, the -- many of the issues were the same; some of them differ by -- by hearing. In this case, I set out that, as an association of large industry, MIPUG will -- they have common interests on -- on rates and electricity matters. And so I'm retained in that respect, rates and electricity-related matters, not other aspects of -- of industrial policy or industrial matters related to Manitoba.

And -- and it's meant to provide them with a review of what the heck they do when these three (3) binders are land on their desk, of Manitoba Hydro's GRA. The MIPUG members are typically senior people in different organizations, and they have a lot of things to worry about and read and don't take a lot of time to read three (3) binders of Manitoba Hydro material. So -- so they hire people like us to try to work through it and give them some views.

And -- and our pre-filed testimony reflects the views that we gave them and -- and their decision to say that they thought we should take these views and provide them to this Board.

We're sort of guided by two (2) things when we get the binders, and we need to flip through them. One (1) is: Who are the clients and what are their concerns? And we set some of that out at Section

2.1 of our evidence. We're talking about a group of clients or part of a class that makes up about 25 percent of Manitoba Hydro's domestic load.

They're -- each of them has made long-term commitments to Manitoba. They've invested significant capital here. They're joined at the hip with Manitoba Hydro in a major way. They don't have other options. They can't buy from another -- another utility supplier. And -- and they don't turn over very often.

And in the last fifteen (15) years, my recollection is there's only been one (1) new customer added and -- and one (1) that's gone away. And the one (1), you know, Pine Falls closed and -- and one (1) -- one (1) new customer was developed in -- in the Virden area. And, otherwise, we're talking about the -- basically the same members and the same industrial complement that was there going back to the -- to the last '90s for sure, maybe before.

MR. ANTOINE HACAULT: Mr. Bowman, in your experience, with respect to industrial customers in particular, what do they rely on with respect to hydro electric rates?

MR. PATRICK BOWMAN: Well, at the time they make their commitments or -- or make their investments in a plant they'll often take the time to try to understand what their supply arrangement here is going to be. And because they're -- like I said, they're captive, it's -- it's all about Manitoba Hydro.

And it's critical to a company coming in -- you can imagine investing hundreds of millions or billions of dollars to develop -- develop a project -- that -- that they've got a utility that's going to be around for the long term; that's got financial strength to help make sure that they're going to get quality power, reliably -- reliable power, reliable is key; and that it'll be able to meet their needs under a stable framework; and that there's some predictability and -- and rationale that reflects how the utility's operated and -- and how its rates are set.

And the members have definitely made the point, when they've come before this Board before, to say that one (1) of the aspects that's important in that decision making is -- is just the -- the presence of this Board and -- and having rates regulated. It's -- it's a very important aspect of -- of their -- the comfort that they can take that -- that there'll be a rational assessment and -- and decisions on -- on rates won't be made willy-nilly or based on short-term pressures.

MR. ANTOINE HACAULT: Now, as relates the customers and Hydro, as an organization, you've indicated low rates are irrelevant if they're unstable or if the Utility would be fly by night.

What about the pressures that a utility like Hydro might face -- or, in your experience, other utilities like Hydro might face?

MR. PATRICK BOWMAN: Well, that's part of my comments about the -- the role of regulation in Manitoba and why it's important, that if you're involved with a utility -- and as I've said, I've been involved in both sides -- you -- you're facing an immense amount of complexity and an immense amount of pressures. And those -- from the world we live in, those pressures ultimately flow through to rates. It's one (1) of the end products of the utility.

I'm sure if you're coming from a different perspective, they ultimately flow through to many different aspects. But -- but we're here about rates, and -- and I'm asse -- asked to assess rates. And those short-term pressures can lead to a utility, like Manitoba Hydro, being -- being -- heading off in certain directions that -- that's it good to have the sober second thought of -- of this Board.

And probably the best example recently

of that is something like the -- the EIIR, energy intensive industrial rate that was proposed in about 2006, 2007, 2008. People were getting the id -- idea in their head that export markets were getting really valuable, and maybe we'll get flooded with industrial customers, so we'd better make sure we do something to -- to, as I called it in that hearing, to -- to bar the door to -- to try to ensure that we don't get that development here, because it's more important that we preserve our load for export.

I'm sure Hydro characterizes it differently, but the proposal was pretty clear that if you grow or if you're new, you're going to pay a higher rate. Thankfully, the customers had their route of appeal to this Board, and -- and this Board rejected that rationale. And I think that's turned out to be a very wise decision, because as we sit here today, it's -- it's probably a lot more attractive to have an industrial customer on your system that you're serving than -- than dumping power into -- into export markets.

And that type of -- of comfort that -- that the system works in that way is -- has been raised as -- by the members as being important, and it's -- and it's part of what frames our assignment. That's why we're asked to look at -- at Hydro not in the context just of its finances or its planning, but in the context of it as a regulated utility. That's one (1) of the aspects that -- that guides our review.

MR. ANTOINE HACAULT: Now, Mr. Bowman, could you start to address the lenses that you used to look at the evidence that was provided by Manitoba Hydro in its rate application?

What rate-making principles and -- and what general principles did you consider in analyzing that evidence?

MR. PATRICK BOWMAN: Yes, and I'll note that if someone wants to go back and review it, it's something we took the time to briefly explain in Section 2.2 of our -- of our submission. But we've -- since InterGroup's been originally retained by MIPUG, we've always submitted testimony to say that we're reviewing Hydro in light of principles appropriate for a Crown owned, regulated utility.

And we haven't always taken the time to explain what all that means. And -- and this time we -- we went back and tried to put that down on paper so that people understood the context. So over the course of about five (5) or six (6) pages there, we review that.

In a way, we're -- we're reviewing

Hydro. And -- and the recommendations and the conclusions we make upon -- in our review of Hydro and its -- its GRA, focus on three (3) fundamental things. One (1) is that we're dealing with a regulated utility. And that -- that has a substantial amount of -- of meaning, a substantial amount of -- of background and literature and -- and the like that deals with that.

The second is that we're dealing with a Crown utility that's, I say, regulated under a cost of service framework. Without going too far into being a lawyer interpreting acts, the framework for reviewing Hydro when it goes through that is a utility that's got a legislative framework or policy framework that's designed to recover its costs, guided by a section that says Hydro shall set its rates in order to recover costs.

It's different than the framework we get when we work in other provinces. In somewhere like Yukon, it has a framework that says the utility shall earn a return on equity. It's got shareholders' equity, and it's meant to earn a return on it. And so does Northwest Territories. That -- we don't have that here. There's no concept of equity and return on equity. There's no -- no fair rate of return language in any of that -- that legislation.

So -- so we review Hydro, in that sense, different than we would if we were given the same GRA by -- by a different utility. BC Hydro has some of the same language. If we were doing a BC Hydro GRA, it would be reviewed in that light, because that's all that a board can deal with. In Manitoba Hydro, we -- we don't have that framework. So that's the second key building block.

And the third is that you're dealing with a high -- a utility that is dominated by hydraulic generation. And from an economic perspective, and rates and fairness of rates being, from my professional background, an economic question, the fact that it's a hydraulically dominated utility leads to an entirely different economic profile of costs in any given period, costs over time, risks, all of those matters, than you would at a -- with a thermal utility or -- or an isolated utility.

So we -- those are the three (3): regulated, Crown owned at cost, and -- and hydraulic. And I agreed vociferously with Ms. Ramage's comment that those three (3) factors come together in Manitoba Hydro in a way that probably is -- is unprecedented in Canada. No one's quite got that combination at that -- that acute a level of those three (3) characteristics as you have here with Manitoba Hydro.

MR. ANTOINE HACAULT: So now that you've listed each of those framework principles that guided your review of all the information that was provided, could you elaborate further on how the regulated monopoly portion of that framework gets applied to your analysis?

MR. PATRICK BOWMAN: Yes. Regulated monopolies have been around a long time. This one (1) is probably, of the three (3), the one (1) that has the most literature, the most case law, the most background on. And in any utility you're dealing with a regulated monopoly, you're dealing with a service function that is in the economic definition of a utility and of a natural monopoly. It's -- it's an essential service. People don't really have a choice but to use it. And it can only be supplied by Manitoba Hydro. Once one (1) company has built the wires, nobody else is going to run wires alongside them and try to steal their customers.

That's why, going all the way back to -- well, before electricity -- why, back to trains, people tended to -- tended to have a different approach to this than a competitive business. And it's -- it means the rates are regulated. It means the levels of service are regulated, and service quality in many cases. It means the terms of service are -- are regulated. It means non-discriminatory access can be regulated. And all those things have to come together, because otherwise, the -- the opportunity is very large for that -- that monopoly to -- to abuse their position.

And we come at it from a customer's side. Both my background and our clients come at it from a customer's side. It's not just a question of the policy, framework for the province, or the -- or the financial framework of the utility. It's: What does this mean to the public interest? What does this mean to customers?

And customers can't choose not to use electricity. They can't choose who they're served by. And they -- they can only influence that -- rather than just be -- not to be sensational, but rather than just be victims of it or -- or whatever, if -- if they have that public interest being looked out for in some means or other; in this case, by a board.

And it -- it ultimately shows up in the language of the types of things, like Mr. Williams was citing, that rates have to be just and reasonable, they can't be unjustly discriminatory, and that the -- and that the first principles for regulation by a board has to be the public interest.

MR. ANTOINE HACAULT: I believe the Chair may have had a question.

THE CHAIRPERSON: I just want to go back to the notion that Manitoba Hydro is unique. I mean, the -- the terms you've described -- a regulated Crown utility dominated by hydraulic -- I mean, doesn't that describe Hydro-Quebec?

MR. PATRICK BOWMAN: Not in its entirety. Hydro-Quebec operates in divisions. It has a production division, and it has a transmission and distribution division. And the production division is not regulated. They have a framework that says, under the -- the legislation there, that the distribution utility has to acquire all the power it needs to serve the customers. It's regulated and has its rates for its wires set, and it has -- has to go out and -- and acquire power.

One of its sources for power is the production division. And the production division of Man -- of Hydro-Quebec has to provide to the distribution division a certain quantity of power at a certain price that's set by the government. It's not regulated. No one looks at its operations. There's no question about its operating and maintenance expenses, and the like.

It's 165 terawatt hours, I believe, is the number. It's been enshrined in legislation, and -- and the price has been fixed for about ten (10) years at two point seven-nine (2.79) cents a kilowatt hour.

So -- so if you were sitting here in a Hydro-Quebec hearing, there wouldn't be any of this talk of how do you run your system and how do you -- how do you profit from exports. If you can profit from exports, that's fine. Production division keeps them. The government gets a dividend, or doesn't, or takes a risk, and all that stuff.

But if you're a ratepayer, you know that you're going to pay for your wires on the basis of a decision by a regulator. And for the first 165 terawatt hours of, power which to -- last I knew was still more than the entire province consumes in the -- in its regulated division, you're going to pay two point seven-nine (2.79) cents, and that's all. Or I think they're now talking about raising that by inflation, the last I heard.

But -- but you -- you're -- you're not at risk of water flows. You're not at risk of drought. You're not at risk of new projects being built because all of that is fixed in an outside, unregulated part of the operation. So that's -- so that's one of the ways that Hydro-Quebec is different than Manitoba Hydro. You don't have that -- you're -- you're not in for a penny in for a pound on the development and generation side.

MR. RAYMOND LAFOND: Who assumes the risk?

MR. PATRICK BOWMAN: It's -- it's the Government of Quebec. Through -- they -- they still own the company, and -- and they still can profit from it or -- or potentially to take -- take losses from it. Hydro-Quebec is not at the same -- their variability isn't as high as Manitoba Hydro, so it's -- it's not quite the same situation.

But -- and if -- if the distribution utility grows beyond 165 terawatt hours, it has to then go buy that from market at whatever prices it has to pay in the market. They haven't really run into that yet. But as it goes forward, it could be buying the hundred and sixty-sixth terawatt hour from Hydro-Quebec production, but it'd be a market transaction. It would be a separate -- a separate deal outside of that basic heritage contract. So that -- that's one of the ways in which they're different.

BC Hydro has some differences too, and -- and Newfoundland Hydro has some differences. But none -- I'd say none are quite this -- this pure a model, if you like.

CONTINUED BY MR. ANTOINE HACAULT:

MR. ANTOINE HACAULT: Thank you, Mr. Bowman. Could you speak a little bit about capital efficiency and --

MR. RAYMOND LAFOND: Oh, I'm sorry --

MR. ANTOINE HACAULT: -- sorry.

MR. RAYMOND LAFOND: I -- I thought you -- you were dealing -- you started dealing with the three (3) principles, and you've just dealt with the regulated framework. I was assuming that you'd now talk about the second principle of Crown owned, and the third one then after, at cost.

MR. ANTOINE HACAULT: Yes. We have --

MR. RAYMOND LAFOND: Or are we leaving that?

MR. ANTOINE HACAULT: -- we haven't left it. It's still a discussion under the regulated monopoly. When --

MR. RAYMOND LAFOND: Thank you.

MR. ANTOINE HACAULT: -- we get into

the second part, the Crown cost of service, I'll specifically identify that we're moving into that different area.

MR. RAYMOND LAFOND: And I want you to discuss the Crown-owned portion.

CONTINUED BY MR. ANTOINE HACAULT:

MR. ANTOINE HACAULT: Please continue with respect to your discussion of the fundamental pillar as it relates to a regulated monopoly.

MR. PATRICK BOWMAN: Sure. I'd also note one (1) other thing that dawned on me about Hydro-Quebec that -- that's different and that's quite key, is the Hydro-Quebec also has a cutoff for what they consider a regulated customer. And if you're above a certain size in Quebec, like the aluminum smelters, you're not -- you're not subject to the regulated rate.

You go make, effectively, your own deal with the government about your rate. So it'll -- it could be the published rates or it could be lower. That was one of the comments that -- that Mr. Yan from Nexus -- or Canexus -- Canexus made, that those aren't published. They're just part of an overall package of costs and benefits associated with a -- with a development.

And my recollection is that cutoff is -- is pretty high; 175 megawatts comes to mind, although I think it may have been lower. But nonetheless it's a -- it's a small number of customers who would -- who would be under that framework. But it means that if -- if you're an industry there, you don't appear before a Board. You don't have to --

MR. RAYMOND LAFOND: You said you deal with the government. You mean you deal with the production division of Hydro-Quebec?

MR. PATRICK BOWMAN: Well, no. It's actually -- as I understand it, is contracts that are -- that will bundle the power prices you receive with the broader economic and social bren -- benefits you bring. So things like -- it depends on the region you develop and the jobs that you bring, the taxes you pay. Those type of things will all get considered in an overall contractual or -- relationship and -- and they're -- they're fundamentally at a -- at a cross-government level. It's not just about power; it's about your overall role in -- in Quebec society.

So my understanding is that's all at -- at the government level, not the -- not just the -- the Hydro-Quebec production division.

So in terms of the regulated monopoly, the thing that -- that adds to this level of assessment that we do is -- is that there's a lot of people who have different roles in reviewing Manitoba Hydro and in looking -- looking at the organization.

Hydro has, you know, a Board of directors who will deal with -- with broad management and governance aspects. They have a committee of cabinet -- or, sorry, a committee of the legislature that will look at broad policy thi -- matters. It has a Crown corporations council that plays a role. And it -- it -- of course, it has auditors. It has lenders. It has bond-rating agencies.

It has lots of people who play a role in reviewing Manitoba Hydro and doing -- doing their piece of the puzzle to -- to guide that organization. And -- and we come here before this Board as the only one (1) of those that -- that role starts with rates, and it starts with public interest in respect of rates.

So -- so our evidence to you, if -- if I get -- ever get sick of the word, it -- it's fundamentally starting from -- from rates, because that's -- that's where our assessment goes and that's where your role, as we understand it, is -- is fundamentally built.

MR. RAYMOND LAFOND: But when you refer to public rates, you're referring to MIPUG rates, whom you're presenting?

MR. PATRICK BOWMAN: Well, in respect of most of the recommendations that we're dealing with, it's -- there's -- there's almost nothing that would be any -- any different in reviewing Hydro that would be any -- that would be for -- for industrial versus -- versus residential customers.

And I -- I wouldn't want to -- I don't want to suggest I speak for either. I'm only here to give my opinion. And but our -- our -- in our -- in our evidence I -- I say that our -- our members can decide -- our -- our members' concerns may decide what we look at. But the -- the -- ha -- having -- having framed that, it's -- we're not just guided by what -- how does this matter to industrials. Things like -- like time frames of -- of recovery of costs or -- or, you know, fair rates for today versus the future or something are -- are much broader than just how does it affect in -- industrials.

It -- it certainly plays a role for all the different classes. And I -- I'll let others pursue that as they will in their -- in their arguments. But -- but I can -- the -- the bulk of our assessment is not -- is not guided by just how does this affect industry.

And that's -- I'll say that's not uncommon when you deal with a revenue requirement application. Generally, most times you're dealing with the revenue -- fun -- what is fundamentally a revenue requirement application like this, the customer groups will have very common interests. They'll be largely over -- over -- aligned with -- with many of the types of issues.

It -- that'll be different when we get to a cost of service review, where you talk about how do you then allocate those costs to the different classes. And then there, the common -- the common perspective is the utility can sort of sit back and let the customer groups express their different principles and -- and views.

So I don't think it's entirely true, but it's a -- the utility knows over a level or trade it's -- it's getting. It's only a question of who -- who ultimately then pays those.

So we -- we come to this Board under the premise that -- that rates matter and they make a difference and that the regulation and concern over the cost charged to people has very real impacts. It's --

it's part of our overall practice as a firm that deals with impacts on people, not -- not just you're fascinated with the eleventh decimal place of the -- of the rate. It's -- it's because this ultimately has impacts on -- on people, whether those are residential customers or industrials.

And -- and it matters, in terms of where Manitoba can go as a province. Hydro is a -- is a major factor in -- in many aspects of -- of the province, and that's part of -- of why you get regulation these days, probably more so than you did in the past, of -- of these big utilities, including Crowns.

You know, the -- the odd one, like Sa -- SaskPower, for years wasn't regulated. It had the legislature set its rates. But because they're such a big factor and people look for their input, if anything they're moving more towards having a board play a role. Not a regulatory, it's a consultative body; but -- but moving more towards that. And -- and some of the other Crowns have moved more towards regulation in the years I've been -- I've been working, because it's a -- it's a big factor.

CONTINUED BY MR. ANTOINE HACAULT:

MR. ANTOINE HACAULT: In the context of a monopoly and customers, are they price takers, or -- or what happens there? Just like...

MR. PATRICK BOWMAN: The -- the basic premise of a -- of a monopoly and the economics background of a monopoly is that they're -- they're not able to have a properly functioning competitive market, by the nature of their system, whether that's by law or by -- by engineering design or by -- by capital efficiency. You -- once someone's built a distribution line to your house, it's not like anyone else can practically come in and run another one. That's not efficient for your -- your province. It's a waste of resources.

And -- and so they get a very large barrier to competition. And -- and so a monopoly has a -- an ability to set their own prices that's way beyond what you get in a competitive market. It's part of the reason for regulation.

But it also means that -- that utilities or companies like that can make decisions that reflect business interests that are different than you would get in a competitive marketplace, that are -- are suboptimal, from an economic perspective. They're not good from a public policy perspective, but they may be good for the utility. And a rate-setting regime has to -- and a rate-setting regulator has to help deal with that.

And that's -- there are hundreds of pages and many -- many pieces of literature that are -- spilled ink on this point, and -- and court cases on this point. But things like, you know, customers paying for what they actually use, what assets they actually use. Customers -- a private -- a utility being reviewed to make sure it's not overly focussed on its cash flow, or its earnings, beyond what it would ever be able to achieve in a -- in a competitive market. Or a utility having much less pressure on its cost regime, because it can always just come back and raise prices, which you couldn't do if you were in a competitive market.

Those are -- those are the types of things that drive people, whether its railroads, or -- or utilities, and whether it's Crown or private, that drive you to have the -- the regulatory framework we're talking about here. And -- and it has pluses and minuses for -- for the overall system.

The pluses are because the utilities aren't -- are -- are -- they're not price takers. They have a ability to come before this Board and have their price set. It means customers can therefore get their protection. They can be looked after by a Board like this.

But it also means that utilities aren't subject to the same competitive pressures or -- or ruthless environment in things like borrowing that other companies are. If you're a -- if you're a banker and you're worried about doing lending to a company that's in a competitive market like a store, you get really concerned that -- that revenues, or at least prices or something, the company really can't control much. They can't just raise their prices because something happened in their cost regime, if it didn't happen to their competitor. So you really have to assess a balance sheet about what are the competitive pressures, what are the risks, how well can they absorb different things that happen.

With a utility, you're not in that framework. And if you look in the bond rating agency reports, you'll see that there's a lot of commentary about -- about this Board and about how -- how accommodating it may be and how much -- how flexible it is to -- to Manitoba Hydro, or to any other utility, in terms of them coming back for higher prices.

Because it's a whole other variable that doesn't exist if you're -- if you're the lender in a -- to a -- a competitive -- a firm in a fully competitive environment. It's the fact that they can change their prices when they need to, and if -- you know, if they have the support of a Board like this to say, You can recover this cost tomorrow, or -- or, Yes, you've collected this money, but we want it back thank you very much.

That creates a real asset or a liability, and it creates a real -- a real effect on the balance sheet. And it also creates a -- a real expectation un -- under law, under -- under comfort for a -- a lender that -- that these things will happen and that the prices will be able to be adjusted for that, because you're never going to -- you're never going to have a point where -- where the customers bolt for a competitor because the competitor is all of a sudden, you know, un -- undercutting by -- by 1 percent or something. You really are -- have -- have a committed base and a committed ability to raise prices.

So that part of the -- part of the aspects of regulation is it doesn't only -- it doesn't only benefit customers by -- by making sure that they have the protection of a board like this. It also can benefit the utility by them having, similarly, the protection of a board like this and knowing that if certain things happen, they can come back and get their prices adjusted, which they probably couldn't do if they were in a competitive market.

MR. ANTOINE HACAULT: I believe that completes the discussion under monopolies. Unless there's questions from this Board, we would move to the Crown-owned costs of service at pillar, which would be the second aspect of Manitoba Hydro, and how that applies to your lens of looking at the material.

MR. PATRICK BOWMAN: Sure. I -- if I can just finish up on one (1) last point on the regulated utility concept. It hasn't been before this Board in as big a way as it was in the last hearing, but in the last hearing we spent a lot more time talking about risk. It's clearly been in this hearing, but it -- not in the same degree.

And -- and the last aspect of being a regulated utility is, particularly in this type of framework, is -- is that in most of the things that are going on, if there's a risk, it's -- it's fundamentally the customer who's at risk. It's the customers and the future customers that can get it in the neck when things go bad, because, you know, there's very little chance that a utility is going to be -- especially a utility like Manitoba Hydro is going to be unable to recover costs or expected to go through a -- a bankruptcy or -- or a recourse to a guarantor.

What's going to happen is prices will go up. And you see that in something like -- like a Wuskwatim. If it was a competitive environment and somebody said, I can build this plant for so many hundreds of millions of dollars and I can produce a product for this price, and at the end of the day they couldn't produce a product for that price, there would be a risk to a shareholder or a risk to a lender.

But in this environment, we don't have that. It's -- it's -- it's a customer, and it's part of the reasons why you need a regulated board looking out for a long term. And -- and that's -- that's reasonable. It's not to say it's wrong. It's not to say somebody should -- somebody else should be getting it in the neck for -- for that. But it does mean that it -- it has to colour how we -- how we view both the short-term and the long-term aspect of -- of rates.

MR. RAYMOND LAFOND: When you say that this hearing has not given as much attention to risk, do you not agree that one (1) of the premises we established at first was that risks that the -- the bigger risks are in regards to new generation, whether it be Wuskwatim, as the example you just gave, or the new projects being looked at, and that this is essentially deferred to the NFAAT that's going to be looked into fairly soon?

MR. PATRICK BOWMAN: Yes, absolutely. It's not at all a criticism to say that it's -- it's not about risk. The NFAAT will have to hugely deal with risk. It will be a fundamental core concept. And -- but I -- I'm just saying there were aspects of the risk of Manitoba Hydro that had additional evidence called in the last hearing; things like their water management models and people reviewing whether those computer models were properly considering future scenarios of flows, for example.

There was a fair bit of review of that in the last hearing, and we haven't -- we haven't really focussed on that in a big way in this hearing. And -- and some others. There was some professors who testified who -- who had run some Monte Carlo simulations and that sort of thing. It was -- it was quite time consuming. It was -- it was very instructive and was probably good we don't end up having to repeat it every -- every two (2) years.

But -- so it's not to criticize the scope of this hearing at all. It's just to say that --

that we haven't had the same -- the same degree of focus. But we do have the same outcome, which is whether it's new projects or whether it's other things that go on in hydro system, at the end of the day, Hydro's net income is fundamentally not materially at risk. Hydro's debt guarantors are not fundamentally at a whole lot of risk. It's customers who are at risk.

And -- and many years ago, I gave the example in Ontario, when -- when the consumers' association had to call the witness from Ontario who's very well respected in this jurisdiction, Mr. Bill Harper, and he reviewed how, when it proved that the nuclear investments and some of the other debt the utility incurred was -- was very -- risk of not being self-supporting, the government took -- took that and put it into a separate finance company and put a surcharge on bills that they've been paying ever since. And -- and it'll be paid off.

But despite a government guarantee on that debt, it's not -- it's not a recourse to -- to the guarantor. It's -- it's ratepayers will pay. So -- so it's the -- the job of this Board is just all the more -- all the more important from that perspective.

On the Crown utility, this also can guide the review -- in the case of Hydro, does guide the review. It's -- again, it -- it's rooted in the -- the company and what it's established for and how it's -- how it's meant to be -- to be reflected.

We don't have a case where Hydro is capitalized by an investor. If you're -- if you're sitting in Alberta and -- and you've decided that electricity's a essential service and you want to make sure that your -- for your industry and your citizens that you need quality power, and you decide that you're going to structure a utility in a private-sector way, then part of what you do is put aside a board like this that makes sure that the investors are going to get a good enough return that you actually attract some capital and they come and build stuff.

So you build into an act that there should be a fair rate of return on the investors' money, because you want to attract that investment. If you put it too low, your system's going to suffer. You're not going to get the reliability. You won't get the investment. And so those acts and that legislation and those -- those frameworks will have that built in.

That's not what we have here. We have a utility that -- that didn't have to be attracted here to invest in the system. It -- it was given a mandate by the legislature to invest in the system. It's got its direction under the -- under the Manitoba Hydro Act. And, as a result, it -- it carries forward under the provision.

And it's one (1) of the reasons it -- you'll probably -- I can't recall ever having seen, I certainly would never calculate a -- what is a return on equity for Hydro, because it's never been a relevant consideration and it's never really had an investor put in equity to -- to earn a return off of it, or at least certainly not for the purposes of earning a return off of it.

And you don't need that to attract Hydro to do what the act already says it should do: provide quality, reliable service. So that -- from that perspective, you'll find a whole different framework. If you go to a CAMPUT conference or meet with a Alberta board or -- or a Nova Scotia board or someone who spends a lot of their time regulating private-sector utilities, a whole different set of -- of expertise and practice that they need, in terms of -- of attracting capital in the world markets. And we don't -- we don't have that -- that here, thank goodness.

And I, as read -- as an economist, the words that are used in -- in the framework for Hydro, the legislation included, that you won't find the words "profit" or "return". You will find the word "cost". Of course, as a -- "reserves" is in there. That the Hydro rates, per the Act, shall recover the costs. And it specifically represents -- repre -- references O&M and -- and interest.

And the sum that, in the opinion of Hydro's Board, should be provided each year for reserves are funds to be established pursuant to a separate section that gives you a guidance on those reserves. So we come in that -- that -- and that can be amortization of assets. It can be self-insurance, rate stabilization.

But it -- it guides us on some things. Like we wouldn't see that there's room in a regulatory framework to say that customers should prepay for assets, that we should start, you know, paying now to -- to build up the -- the cashflow or the equity for Conawapa so that when it comes into service, Conawapa is capitalized like an investor would capitalize it.

It's not in the Act, and it's not in Hydro's plans. I -- I -- my understanding, Hydro has no dispute with that, that they've routinely said, We don't pre-charge customers to prepay for assets. So on that point, they're -- the -- the regulatory framework and the -- the Crown framework is -- is quite clear.

And that -- that fits well with the regulatory principles of used and useful. And we've referenced the times that ratepayers pay for what's serving them today. If there's an asset that needed to serve ratepayers tomorrow, tomorrow's ratepayers pay for it.

That's different than BC Hydro. For example, BC Hydro does file a GRA that has a return on equity, because that's the framework. That's the legislation. It's different than -- than the old Centra Gas, which did have a framework for that, but not -- not in Manitoba Hydro's case.

And the other piece of the puzzle in the Manitoba Hydro example is that their -- they've rai -- they -- each time they come before this Board for a rate increase, the question becomes not: Are we paying the investor enough to keep it spending money and keep building us quality assets? The question is: Are we putting enough aside to be able to have stable rates in the future? That's the premise of the reserves. That's the premise of the risk analysis, the drought reserves, those types of things.

And -- and I -- underlying in that, rightly so, the question is: How much ought ratepayers pay today to build up and put aside the reserves that will provide them benefit in the future through more stable rates and -- and protection against risk events that would otherwise drive their rates up? Remember there was the -- it's ratepayers that'll get it in the neck if -- if things don't turn out.

MR. ANTOINE HACAULT: So, Mr. Bowman, how does that discussion fit into the fact, for example, that Mr. Warden explained that the first effort of Manitoba Hydro was actually to put a reserve which was equal to two (2) years' worst flood on record?

MR. PATRICK BOWMAN: Well, it -- it fits perfectly with that. I wasn't around in those hearings. But, you know, Hydro -- Hydro basically operated as a debt-funded company, through the records I've reviewed, 95/5 debt-equity ratio or something of that nature, for many, many, many years.

And once it finally started being regulated by this Board, it came in and made the case that -- that it didn't make sense to -- to operate on that basis, where there was not a lot of protection if a -- if a drought occurred and the like. So we should start bringing up rates so that some reserves are set aside and -- to the benefit of ratepayers, to the benefit of stabler and more predictable rates in the future -- for when adverse events occur.

And the -- and the first -- the first set of reserves then was defined by a specific adverse event, and it was -- it was two (2) years of the worst drought on record plus, I believe, another provision for self-insurance, is -- is my recollection of it. And -- and it led to a target of about $600 million, I recall, that was -- became the -- the progress of setting rates up to about the late '90s, '96 GRA, probably.

MR. ANTOINE HACAULT: Thank you. You commented a bit on BC Hydro's approach to reserves. What about Northwest Territories? How do they deal with the issue of reserves or returns?

MR. PATRICK BOWMAN: They don't have them at all. And the reason is because they're regulated under a different framework. In Northwest Territories, the -- the Crown there was set up by the Government of Northwest Territories buying what used to be a federal company called the Northern Canada Power Commission. And they set it up as their own utility, Northwest Territories Power Corporation, NTPC.

And -- and they set it up as a regulated company. And they borrowed largely from an act in Alberta, which is the -- the Utilities Act designed for private-sector companies. And it's capitalized with 40 to 50 percent equity, and it earns a return on that equity, and it pays a dividend to its government.

It's -- it's, for all intents and purposes, a private-sector company owned by the government. It's regulated on that basis. It doesn't pay taxes, so it doesn't have taxes in its -- in its cost structure. And the dividend that it pays, when it has the money to pay it, is funnelled back into subsidies for customers. So it's not like the government is trying to make out like bandits off of the investment.

But it's not -- it's not structured as a Crown like Manitoba Hydro. It -- it specifically says in the -- in the Act that the -- the Public Utilities Act there that all the utilities, both the Crown and the private-sector utilities that operate in that territory -- there's a mix -- are meant to pay a return on the investors' equity.

And, you know, the Government of Northwest Territories actually put up the money. It -- it bought the company. It capitalized it. It put up the money. It made an investment. It said, I'd like a return on that, thank you very much. That -- that's how it's fundamentally different than Manitoba Hydro.

MR. ANTOINE HACAULT: But there are no extraterritorial exports there, correct?

MR. PATRICK BOWMAN: That -- that -- yeah, that's correct. There's no extraterritorial --

MR. ANTOINE HACAULT: And what is their rate right now to customers?

MR. PATRICK BOWMAN: Wow. It's -- it's really high. Northwest Territories is primarily served by diesel generation, and there -- there is -- I'll say, in terms of the communities, it's primarily diesel. There are two (2) hydro grids, and the hydro grids serve the biggest communities.

But the subsidized -- ultimately, all customers are subsidized to the same rates that's paid in Yellowknife, if your rate would otherwise be higher. And we're in the high twenty (20) cents per kilowatt hour, is my recollection.

MR. RAYMOND LAFOND: Before the subsidy?

MR. PATRICK BOWMAN: No, after the subsidy. Actually, in the thermal communities, if you went out there, their rate right now is -- is running about fifty (50) cents a kilowatt hour for non-government customers. And up until about 2009 -- that was a major review I was involved in, where they did a

-- a rate policy redesign. Up until 2009, every community paid its own rate, and there were some that were two dollars ($2) a kilowatt hour.

But they brought those rates together, and they're about fifty (50) -- around fifty (50) cents. They vary between residential and commercial. And then for your basic consumption, which is 600 kilowatt hours in the summer and 1,000 kilowatt hours in winter for residentials, the government subsidizes you back down to that -- that lower Yellowknife rate of high twenties (20s). And commercials don't get any subsidy. They pay the full rate.

And it's differ -- I was going to say it's -- the concept that the -- that the government puts up money to own a company and has equity and wants a return on that equity as an investor also exists in Yukon. Again, they don't have exports, but it -- it also exists in Yukon.

And -- and as I noted, it also exists in -- in BC, where they do have exports. It's -- there is a return on equity built into BC Hydro's regulatory framework. And, frankly, there's income taxes built into BC Hydro's regulatory framework, even though they don't pay them. It just becomes part of their earnings. But -- but, notional income tax is -- is built into their rates.

MR. ANTOINE HACAULT: Does the Board have any further questions on that issue?

MR. RAYMOND LAFOND: No, I just wanted to understand why we were using this as an example. I thought you were referring to them as an example because their results were better than in Manitoba. I was just wondering why.

MR. PATRICK BOWMAN: No. And actually, I'm going to move on to the hydraulic topic. And you'll see that, if anything, a lot of the theory that leads into the rest of the -- of the testimony links more to the Hydro concept than it does to the -- the Crown utility concept.

But it -- it's not just that Hydro's a Crown. It's that Hydro's a Crown, operating under a legislation that says it should operate under a cost of service, recover its costs. It's not like these others that are a Crown operating in a framework that says the government's got a company and would like to earn a return thing. That -- that's -- I think that's why I -- I put those two (2) together in -- in talking through Manitoba Hydro.

And there -- there are others that were -- they are other Crowns that were structured the same as Manitoba Hydro for -- for many years. I'm -- as I said, I'm not sure there's many left. But, you know, New Brunswick Power operated under that type of framework for a long time, and -- and so did Newfoundland Hydro. And -- and I believe BC Hydro, if you go far enough back, had a similar -- similar framework. And then there's a good reason for it when we get into the -- the hydro generation part.

CONTINUED BY MR. ANTOINE HACAULT:

MR. ANTOINE HACAULT: Before you move on to the hydraulic generation pillar, could you comment, while you're commenting on the Crown-owned cost of service utility, with respect to the provincial debt guarantee for Manitoba Hydro, how that fits into the framework?

MR. PATRICK BOWMAN: Well, yeah, yes. It fits into the framework because you're structuring a utility that's -- does not have an investor who puts up funds. And so where are they getting the money to build anything? The only way that they get themselves started is by borrowing all of the funds. And not a lot of people are in the habit of borrow -- of lending a hundred percent of a -- of a value of a company to it to -- to build the bulk of its assets.

So talking -- perhaps this is a convenient time to talk a bit about the -- the hydraulic generation profile. If -- if you go to a place like Alberta, you'll find mostly private-sector utilities dominated by thermal generation. And that's a common confluence.

If you go to places that have a lot of hydro, whether that's Manitoba or Quebec or BC or Newfoundland or Yukon or Northwest Territories, have a lot of hydro in relation to the size of their load, they tend to have Crowns. And they tend to have Crowns because hydraulic generation has an economic profile that doesn't suit private investors very well.

It's extremely capital intensive. It requires you to sink -- tie up a lot of money up front. It has a very poor economic profile in the first couple of years, as we see with Wuskwatim. It has very long payback times before the asset starts to be of value. And it has very high degrees of risk year to year because of things like water flows.

But what it has, despite all of that is almost certainly, and in almost every case that I'm aware of, a very attractive framework and economics for ratepayers over the very long-term. And if you don't capture that benefit for ratepayers, it could be a very attractive very, very long term return to investors.

So a lot of these provinces who have hydro resources weren't all that interested in having investors develop them or -- or, more accurately, couldn't really attract an investor to develop them, because that short-term variability and low front-end returns, because it has such a high front-end cost and very long investment horizons, would lead to an investor saying, Yeah, I'm happy to build you a hydro plant, but I want a really, really high rate of return at the outset. That's a -- that's a bad economic investment profile for a private-sector firm. It's just not something that's going to attract them. Or I want you to back me somehow or provide some guarantees.

So what tends to happen is the government, on behalf of a group of citizens, gets together and says, That's fine, we don't -- we don't -- we won't go that route. We won't have a private investor. We'll do it together. We'll call it a cooperative model, a -- whatever -- whatever it is. We have our ability to borrow. We have our good name. We have a million people here who can -- who can back this. And we have a project that, over the long-term, is going to be good for Manitoba and good for ratepayers. And as long as we can smooth out the bumps and carry the front end, it will -- it will give us an advantage, well, far into the future.

It's a very compelling public policy case, as long as the numbers on the capital costs can be kept low enough. It's ver -- it's very compelling. But -- but it takes the -- the group who doesn't bring in a bunch of equity and is not looking for dividends but -- but is willing to put up the money to -- to build it. And -- and the way that these provinces have tended to do that is they get together and say, Citizens, we'll -- we'll back that debt. It's a good investment.

And that's why the Crown gov -- government guarantees are pretty -- pretty ubiquitous in -- in the Crown-sector hydro-dominated utilities. And it -- and it -- like I said, it makes a lot of sense, and it's proven to be a very, very valuable model.

MR. ANTOINE HACAULT: Could you perhaps hone specifically on a comparison between hydro generation and, say, thermal and SCCT and how those compare from a capital perspective and -- and return with respect to the life?

MR. PATRICK BOWMAN: Yes. The economist in me is -- look -- looks at these projects and is looking at the overall cost profile and how they -- how they vary and what parts of them are fixed and what parts are at risk and what parts are -- are incremental costs.

And in a hydro investment, you'll find that, in a lot of cases, the present value of operating costs might make up 20 percent of the total cost of that asset over its life; 80 percent of it is going to be related to capital depreciation and operating, vast -- vastly dominated by the capital costs. It's off the charts.

Thermal generation, in the extreme, could be the exact opposite. In the simple-cycle turbines that you actually plan to run, which are not developed very often, could be 20 percent capital, 80 percent operating. Even combined-cycle turbines, coal plants, you might be 50/50 over -- over their life, and -- and they're a lot shorter life too.

So you're not -- with hydro, you're not exposing yourself to anywhere near the inflationary risk. You're not exposing yourself to many of the same future costs as you would have with a thermal generation. You're -- you're locking in most of your costs up front. And, as I said, that's a -- that's a tough profile for a private-sector investor unless they've got a really good backing.

And you can look at something like British Columbia now. In the last fifteen (15) -- ten (10), fifteen (15) years, British Columbia has -- has had some directives, policy directives, by the province that says, We're going to help the private sector play a bigger role, IPPs. And it's hotly debated, but -- but they did pass some -- an energy policy, energy plan, in -- I think it eventually got crystalized in about year 2002 or so, 2001, that said we're -- BC Hydro, we don't want you to build any more. You -- you can work on the big one. Site C, go ahead, you work on that one. But any of the little stuff, we're going to -- we're going to ho -- go ahead and do a call for power and we're going to have all these IPPs come out.

And -- and they did that. And they prepared their resource plans. And they had a call for power. And lots of BC IPPs came out and bid in. And -- and they expected and -- and received contract frameworks that leave, basically, the -- all of the risks with BC Hydro. They're getting paid a levelized price for the -- the power they deliver.

In many cases, my understanding is they're take-or-pay contracts, so they -- so that even if BC Hydro is not in -- in need of the power at the time or doesn't have a good market for it, it's got to buy it. And -- and they'll levelize those costs so that -- so it doesn't have this downward-sloping cost profile we talked about earlier in this hearing about hydro projects, where they're high on the front end and lower as you go -- get on in their life, because you depreciate them.

That's what it looks like as an -- as an owner of a hydro project. But what these investors have managed to do is get a price that actually is flat or increasing over the project's life. And -- and the risks on -- and -- of that and the benefits of the back-end lower prices are -- are ultimately not going to be available to the -- the BC ratepayers in the same way, because those contracts expire after twenty (20) or thirty (30) years. The investor still owns the hydro plant. And he can come back and negotiate a new price with BC Hydro, based on what's happened to markets and values of alternative fuels and the like in between.

So unlike us sitting here, where we've got -- you know, something like Kettle or Grand Rapids, where we're getting very, very attractive power out of it and we will for a long time because, as a group, we own it, there, this is the time when those would be going into renegotiation and starting to say, Hey, based on current prices, you're telling me it's seven (7) or eight (8) cents avoided cost. And they'd get to renegotiate.

So the -- they hydro economics will look very different to a Crown investor and to a group of ratepayers who back it with -- with their -- their -- with their future rates and a -- and a government who backs it with its debt guarantee than these profiles of -- of projects we're talking about in other places, and -- and particularly than with respect to two (2) thermal projects.

So if you can -- if you can lock in your -- your cost and you can do it at a price that -- that doesn't kill ratepayers too badly in the first years, you got a pretty darn good chance of having a project that'll -- that'll be a very good project over the long-term. That has tended to be the profile for hydro projects.

So -- and -- and you're going to have a hard time getting a private-sector investor who's really interested in that unless you're going to back them and you're going to take the risk. And they're going to look for a regulatory framework too, because all their dollars are committed to that -- to that regime.

So unlike a thermal plant, where if you build a gas turbine and things go crazy, most of your costs are still future fuel costs and you just avoid them. You can shut down, walk away. You -- you're not in for -- in the same degree. But hydro plants, you can't do that.

MR. ANTOINE HACAULT: Could you discuss in that context, again coming back to reserves and contrasting where we have the IPPs, where you have an investor that would like to see some returns on his investment, how is that contrasted between the hydraulic model and, as you say, CCTs?

MR. PATRICK BOWMAN: Well, with something like a CCT, if you're sitting here setting rates, you're going to spend a lot of time debating what the fuel cost is going to be, and you're going to put in place mechanisms to deal with the fuel cost. You won't spend nearly as much time debating interest rate risk or -- or depreciation studies, because they're not going to be quite the same degree of cost profile.

Don't get me wrong. A lot of debates go on over those. But -- but thermal plants, your -- your -- those other costs, the capital fixed costs, just don't -- aren't -- don't make up the same -- the same profile.

Once you get to the hydro projects -- we talked about the -- the economic profile that has this variability in it -- you've -- you don't have to think about equity, because we've made the decision that it makes sense for us to do it together and back it ourselves. So we don't have an investor to pay. We don't need return equity. And you don't have to worry about some of the -- some of the long-term price resets that might be there if you had contracts like BC's IPPs. You know you've got your costs locked in.

But what you do have to worry about is the variability that can be faced, because if we really sit here with 100 percent debt and -- on a hydro project and we haven't done something to provide flexibility in the framework, then you have a high risk of price instability related to things like droughts or other -- or other risk events.

And that's -- makes perfect sense why the -- the framework that's been set up focusses heavily on reserves and reserves for rate stabilization. Those words are even in the Hydro Act. And it's been discussed before this Board. D

And it's fundamentally in the interest

of -- of my client and, I suspect, others, that it's not beneficial to anybody to set an unsustainably low rate and know that they're going to get 30 percent rate increases because it stops raining one year. That -- that doesn't help anybody.

It prob -- sends all kinds of crazy price signals. It -- goodness knows what kind of chaos it could cause in -- for commercial operators, especially when you know you can -- you can balance that out by finding a long-term, sustainable price that, in most years, when you have better than average water flows, given the way the -- the median works, you're putting a bit aside for the rainy day and -- and when the -- or the non-rainy day. And when the non-rainy day occurs, you're able to smooth through that without having massive rate shocks. You may have some, but -- but you try to keep those to a minimum.

And all of these ratepayers who are -- who are interested in the long-term interest of -- of having a solid and reliable utility would have comparable -- comparable consideration there, in terms of striking that sustainable level of long-term rates.

And it's -- it's one of the reasons why we will tend to use language that others may call outdated but that -- that fundamentally links right back to the Act, and talks about reserves and reserves for the purposes of rate stabilization and for the purposes of -- of being there for the benefit of ratepayers.

That's -- that's the way the system was designed, and there's no -- nothing that's changed as to why that system works. It still can work. It still does work. And there's nothing that's changed in the legislation to say, I'd like to start using a different system.

MR. ANTOINE HACAULT: Now, how does that fit into risks such as infrastructure risks? We've had some discussion in the testimony, for example, of the Dorsey risk. How does the reserve issue fit into risk such as infrastructure risk?

MR. PATRICK BOWMAN: Well, that's a tricky one, and it's a tricky one because it's the kind of thing that -- that isn't readily suited to -- to reserves the same way as something like droughts, that are cyclical and mean reverting. We -- we use that language, in terms of flows, that after a period of low flows, at some point you're going to tend to get a period of high flows. And you're going to have a mean. They're going to tend to revolve around a cycle, and so it -- it lends itself to some degree of -- of rate stability as long as you're -- you're striking the right level of rates.

The infrastructure risks are real. They're -- been there a long time. They've been there since Dorsey was built. The dollar-value impact may be higher now. And -- and they're probably in -- in the category of things that are very high impact, very low probability. And that's a much harder concept to -- to self-insure, which is effectively what Hydro is doing on those.

Thankfully, I might take a bit of --

MR. RAYMOND LAFOND: That -- that last phrase, I mean, this is what Hydro is doing?

MR. PATRICK BOWMAN: Well, Hydro -- most of the things that you'll find on that list of risks in the annual report or in the -- in the IFF are -- are there as risks because it can't -- it can't, or it won't, or it doesn't make sense to go to Lloyd's of London and get them to -- to buy insurance for it, right. It's -- it's their -- their inherent risk to the organization. They're not easily or -- or sensibly insured by someone else.

I -- I'm going to take a bit of the easy out on this one, that it's been there a long time. It's decreasing in magnitude and scope with the changes that are happening and things like Riel sectionalization and Bipole 3. And -- and as a result, I don't -- I don't think it's something that -- that we would now ramp up the degree of -- of fuss about that -- that -- as compared to what's been there for twenty (20) years.

It doesn't mean it's not real. And -- and it -- it definitely is -- is something that people should spend a lot of time thinking about how to avoid; how to improve a system to protect against it, which is what they're doing, as best I can tell; how to consider options and -- and scenarios.

But I would actually put -- I would think that the loss to Manitoba Hydro of a sustained loss of Dorsey would pale in comparison to the loss to the Manitoba economy from a sustained loss of Dorsey. So if I was lying awake at night, worrying, I'd be worrying about how we keep the lights on way ahead of worrying about the -- the specifics of how we pay for it.

And -- and it's part of the reason, I think, that you'll find there's a fair bit of discussion about -- about risks and the infrastructure risks as you move towards an NFAAT hearing, where the NFAAT is fundamentally, as I -- as I would portray it -

- I don't know if it's the way Hydro describes it. But it's fundamentally about -- about getting a way to improve your transmission connections to the US.

MR. RAYMOND LAFOND: To my knowledge, the NFAAT does not consider Bipole 3 or the -- the Riel station. It just considers the new projects, Keeyask and Conawapa?

MR. PATRICK BOWMAN: Yeah, that -- that's my understanding of the scope. But the development plan, if you flip to the power resource plan, you'll see the -- the lines people tend to focus on is Keeyask and Conawapa. But the line that people ignore, because it -- or -- or sometimes ignore, because it seems like a small number, is a new cross-border transmission. And -- and part of it that -- that people really ignore, because very few people understand it, is a new set of contracts that give us a different set of transmission rights in the US.

And so if you're sitting here, worrying about ratepayers, or if you're in some other office, worried about the potential shocks to the Manitoba economy, those things are at least as big a deal as building a hydro dam, because they change dramatically not just your ability to access our 5,000 megawatts up north, but our ability to access the 100,000 megawatts to the south of us.

And -- and I -- I won't go much farther than that, because I'm -- I'm certainly not able to review the power resource plan in -- at that level of detail. But I think you'll find that -- that people who -- who have been involved -- and I've certainly heard this from fairly senior in Manitoba Hydro that we've met with -- that the -- the resource plan is not fundamentally about generation. It is fundamentally about a package that has a very, very high profile on -- on transmission for that reason, cross-border transmission.

MR. ANTOINE HACAULT: I'm just looking at the time. The Board can continue to ask questions on this, and I leave it to the Board as to when we take a break.

THE CHAIRPERSON: Well, you're focussing on the -- sort of the principles at this moment, and it's interesting. You know, I'd like to -- can we square that away in a relatively short period fo time, or...?

MR. PATRICK BOWMAN: I think we can.

THE CHAIRPERSON: I guess, while we're on the topic of -- of time management, this is an interesting topic that we're covering. But I'm worried about the time that's available to this panel before it recesses for an extended period of time.

I'd like to get the evidence in from your witness before the end of the day tomorrow. And at the pace we're going, I'm concerned that we won't get that done. I wonder if, over the lunch hour, in terms of -- of -- my concern is making sure that we get disputed issues on the table and discussed. And -- and so far, we have -- we have not done that.

And so I'm worried, in terms of how we get to that and get that completed before the end of the day. And we can go back and discuss, sort of, basic principles, which I think will surface in -- in some of the -- the areas that are being challenged by -- by MIPUG, in terms of the rate application, as a byproduct of -- of a discussion of the disputed matters.

So -- so to the first question: Can we -- can we complete this discussion of -- of rate-setting principles before we break for lunch in a relatively short period of time? And then second -- the other question is: Do you object to -- to the approach I'm suggesting with respect to addressing the -- the disputed areas of the Application?

MR. ANTOINE HACAULT: My expectation,

members of the Board, is that we will finish Mr. Bowman's direct testimony prior to 4:30. I -- I would have thought it's -- we had an initial motion this morning; I think we would have been well into his other evidence by now. But my full expectation is that -- I was looking through the notes. We're about halfway through the presentation. There's been quite a few questions. So that we'd spent about an hour and a half this morning on the presentation, and I would expect another hour and a half to two (2) hours would complete the presentation,

THE CHAIRPERSON: Given that, why don't we adjourn now for -- for lunch and -- and resume the proceedings -- sorry, why don't we recess now and resume our proceedings at 1 o'clock? Thank you.

--- Upon recessing at 12:03 p.m.

--- Upon resuming at 1:01 p.m.

THE CHAIRPERSON: Good afternoon. We're ready to resume the proceedings. Mr. Hacault...?

MR. ANTOINE HACAULT: Thank you, Mr. Chair.

CONTINUED BY MR. ANTOINE HACAULT:

MR. ANTOINE HACAULT: Mr. Bowman, could you address the -- the in -- issue of interest rate risk and setting up reserves?

MR. PATRICK BOWMAN: Yes. Good afternoon. The notes that I have on this relate to the fact that, building where we were this morning, the premise of trying to set the rates for a utility such as this is to find the -- the level that can be sustainable generally over time so that things that are cyclical, like droughts and floods, or some of those other things that are -- that can affect it on a short-term or a medium-term basis, don't lead to rate shocks.

Interest rate risk is a -- is a little bit different. It's a little bit different partially because most of the debt at any given time is locked in. And it's a little bit different because it's not necessarily quite the same cyclical mean-reverting nature as water flows.

But if -- if interest rates make a move -- move up, for example -- for a period of time that leads to hydro refinancing debt at a higher level, you know, on a normal operating basis, then it's a perfectly reasonable set of circumstances that lead to rates moving up.

It's -- it's not necessarily the -- the

kind of feature that you'd worry about trying to set aside some reserves to protect against, because it's exactly the kind of feature that is a recoverable cost for the utility and is a -- is a reasonable basis for -- for rate changes, whether that's up -- upward or downward movements.

MR. RAYMOND LAFOND: I -- I'd like to make a comment on that. If, for instance, a new project like Wuskwatim wa -- was financed at 6 percent for thirty (30) years, come thirty (30) years' time, the interest rates are 16 percent for -- to renew it for twenty (20) years.

That would be a real interest -- that would be a real rate shock because interest rates -- or interest -- finance expense make up two thirds (2/3s) of the cost?

MR. PATRICK BOWMAN: Yes, I agree. I'd sort of make two (2) corollaries to it. One (1) is I'm not sure anyone would -- well, let me go back a step. First, I think you'd want to be looking at the -- as Hydro does, at a portfolio of debt and maybe not necessarily the -- the debt associated with one (1) -- with one (1) project.

And -- and even if you were dealing with either a portfolio or -- or even a subset of the portfolio, you -- for those reasons, you'd -- you'd still want to have a sensible treasury type of policy about exposure to rates by using different -- different maturity dates so that you're not necessarily having a whole bunch of debt turning over at the same date. That -- that certainly gives you an acute risk if that -- if that does occur.

And that's why, with my comments I said on a normal basis, if interest rates move up any given year, you're going to be refinancing some of your debt. That will drive your costs up somewhat. You come back. You work your way through higher rates. And that is the way the system's meant to work.

When it comes to very lar -- ma -- very major projects, it definitely is a different situation. And -- and when you look in those risk tables that we provided in the MIPUG book of documents about interest rates risk now it's magnitudes higher than it was two (2) or three (3) years ago, because the horizon is now picking up the major projects.

But that's not -- that's not necessarily a risk that's inherent in -- in the -- what I call the status quo IFF or the basic operations of Hydro. That -- that's a risk that definitely fits more in the -- the bucket of the sort of NFAAT type of issues and that really needs serious thought.

You gave the example earlier of the project in -- in Mayo and why it was able to come in on time and on budget. Well, one (1) of the reasons we were able to make that happen was because of schedule management. The -- the project was smaller. It was -- it didn't involve new water conveyance system -- or new water retaining systems. There was already a dam there. We added a penstock and turbine and expanded the capacity of it by 10 megawatts.

And the project was being assessed in 2007. The decision was made to proceed with the project to an advancement schedule in the middle of 2008, which is when some -- most of the cost esta -- estimating was done. We filed for environmental approvals in early 2009. They had shovels in the ground by 2010. And the project was in service at the very end -- Christmas 2011.

So one of the ways you manage risk on a project, or you manage cost escalation, is you keep your -- your schedule contained. And -- and it's --

MR. RAYMOND LAFOND: I -- I understand that, but I'm trying to see a relationship with interest rates.

MR. PATRICK BOWMAN: Well, I'm saying

the same is true for interest rates. The -- the -- if you're sitting, having a -- if you're sitting --

MR. RAYMOND LAFOND: No, but on interest rates, you -- you said there were no reserves required. My knowledge in the banking industry, they require equity for the purposes of absorbing, amongst other things, interest rates escalations, which can be fairly serious on a project that's so capital intensive, because that's the major portion of it.

MR. PATRICK BOWMAN: Right. So let me go back a step, because I would -- I would put this in -- in two (2) categories, and I think they each have a bit of a different story to them.

So under a normal operations category, a base case IFF where you're -- you are building what you need to, you're doing a least-cost capital plan, and you're assessing rates in a test year over a few years, your interest rate risk is not immense because most of your debt is fixed at long term. It only turns over slowly.

And -- and for your banker looking at your statements, you're different as a regulated utility who can raise the rates than you are as a company who can't raise its rates, who's -- who's fixed in the market.

So if you're -- if you're financing, take a pick -- Home Depot and you're loaning them money, then you want to see that --

MR. RAYMOND LAFOND: Yeah, I -- I think I understand all this.

MR. PATRICK BOWMAN: Yeah.

MR. RAYMOND LAFOND: I'm just -- I'm just questioning the premise of why no retained earnings would be -- need to be accumulated to a certain extent to cover off finance risks?

MR. PATRICK BOWMAN: Sorry. It's possible I'm -- I'm misunderstanding the question, because I was -- it -- there's a -- there's a set of interest rate risks that relate to the ongoing normal IFF, and there's a set --

MR. RAYMOND LAFOND: Well, maybe I did --

MR. PATRICK BOWMAN: -- of interest rate risks that were --

MR. RAYMOND LAFOND: Maybe I did not understand your premise. I think I heard that we needed to accumulate retained earnings for the purposes of -- of avoiding major rate changes or vol -- volatile rates due to droughts, but that that was not needed for interest rates.

And I'm saying: Why would not a certain level of retained earnings be required to soften up the blows of interest rates incre -- increasing substantially in the near future?

MR. PATRICK BOWMAN: Well, some -- some level of reserves could soften, but it's not serving a function like a drought, to offset something that's good some years and bad others. The interest rates are already softened and absorbed into Hydro's system because they do long-term borrowing, because they only turn over so much debt in the absence of the major projects, because they only do -- turn over so much debt every year, and because they use a long-term debt portfolio and most of their interest rates are fixed.

That would tend to mean that when your interest rate starts to move, your -- your cost levels shift perhaps in a fairly significant way, but over time, and -- and your cost transition to a different level, a higher level. And your rates can move over that same time to transition.

I'm saying that -- making a distinction between that and something like -- like droughts where you can have --

MR. RAYMOND LAFOND: Okay. I understand the droughts. But we -- we heard earlier this week that the policy of Manitoba Hydro is to maintain 15 to 30 percent of their debt portfolio in variable rates; in other words, demand rates. So if rates go up by 3 percent, 30 percent of the portfolio goes up by 3 percent.

Am I correct?

MR. PATRICK BOWMAN: Well, the -- the part I would have focussed on was what they were actually maintaining and whether that's a sensible proportion to maintain. My general experience with -- with these type of -- of utilities is that you would try to maintain as -- you know, a very high percentage in -- in fixed rates. You might keep some percentage in short-term, which is what I understand Manitoba Hydro is looking to do. You know, to -- 15 percent is the number that -- that I've seen recently in variable.

But there's sort of a technical reason for that, which is you actually end up with an overall lower cost of debt by keeping some in short-term, and you can actually reduce your risk of variability from year to year by keeping some in short term because you start to see the effects of rate changes a little bit sooner. So you don't get just walled by big refinancings. You -- you -- you get some of that eased into your system. And -- and as that eases into your system, that's exactly the kind of reasons why you would come back and say, Our overall cost level has changed, let's change rates now.

I'm making a distinction that that's not a reason why you would come and say, Our cost levels might change in the future, and so let's all get together and decide that -- that ratepayers should now pay a higher level of rates, take money out of the economy, take -- take the impacts of higher rates because -- because interest could go up, and -- and so sort of pre -- pre-fund the interest expense in that year.

Interest expense in that year is a valid component of rates, and -- and it will be -- it could be readily part of a change to rates at that time. Other than perhaps some -- some limited aspects that are for, you know, transition to help avoid the rate shocks.

But it -- it would take -- outside of the major projects, it would take a heck of a short and a heck of a steep interest rate price change to be -- have Hydro coming in here and saying, it's -- We now need to shock our customers.

MR. RAYMOND LAFOND: Okay. Thank you. I've heard.

CONTINUED BY MR. ANTOINE HACAULT:

MR. ANTOINE HACAULT: So, Mr. Bowman, is part of that, that your capital also, on the long-term projects, continues to be spent over a long time period? For example, we're looking at Conawapa late around 2026, and there's already some capital spending. And that capital spending continues on an ongoing basis. That, together with the biannual -- so every two (2) years -- you're looking at the interest costs.

Is that part of what we're considering, as far as a transition to slowly perhaps increase reets -- rates to meet any increased interest rates?

MR. PATRICK BOWMAN: Right. Your -- your goal in setting rates for a cost-of-service-based utility like this would be to strike a level of rates that reflects the underlying costs and that is able to absorb things like cyclical changes and -- and to some extent, absorb the -- the shock of changes when -- when there's material changes in cost levels.

If your costs are up -- and this is the same argument that I was making in the EIIR hearing. If something happens like your -- in that case, if you had your load grow because customer demands went up and you lost some export revenues and you had to hook up new customers here and it wasn't generating the same amount of revenues as your exports, that's a valid component of a changing cost that you'd work to build into rates. If your interest rates went up, that's a valid component of the change in costs of that underlying system that you want to build into rates. And rates should -- should work to strike a new stable level and -- and -- and move their way there. That -- that -- that's perfectly fine.

The downside is saying that we want to -- the alternative, I guess, is to say, No, no, let's work up rates now, let's -- let's head for our retained earnings not at 2 1/2 billion, not at 3 1/2 billion, but, you know, you look in the latter years of the IFF, and it's 5 billion or 6 billion.

And -- and the question has to be, what are -- what are -- what are ratepayers getting for that? Why are they -- why would it make sense for them to be wanting to have that much out of -- of the overall economy, that much out of investment, that much out of investment, that much park -- parked in Manitoba Hydro if it's -- if it's not serving a purpose of helping stabilize rates?

It -- it -- the only other purpose it possibly serves is offsetting a little bit of interest costs. But I think it's -- it probably is far from the most-efficient way to have Manitobans save is through their -- their retained earnings investment in Manitoba Hydro compared to the alternative uses of that.

MR. RAYMOND LAFOND: And that will be my final comment on interest rates, but it seems to me that if current ratepayers benefit from short-term rates of 15 to 30 percent based on Hydro's policy, the current ratepayer should also pay some of the risk for financing long-term projects with short-term rates instead of very long-term rates, because these are projects -- capital projects that have a hundred life expec -- a hundred-year life expectancy.

That's all I'm -- I was getting at, because if we get the benefit now for low, short term rates, we should probably also put a reserve for the risk of -- of having these low rates versus fixed rates; in other words, benefiting for -- from -- for a 3 or 4 percent rate right now versus paying 6 percent, which is technically the proper type of debt we should have on long-term projects. That was my point.

MR. PATRICK BOWMAN: Yeah, and I think it's a -- it's a very good point. And I -- I accept the premise entirely that if, for some reason, we were to sit here and say, Wow, we're going to -- we're going to take a bunch of short-term debt, beyond what a good portfolio analysis would show, because -- because the rates are really low.

So let's make sure we nab a bit of that short-term debt a bit more than we could otherwise justify and -- and really pass through some cost savings on to ratepayers, or -- or some benefits into Hydro's system. And -- and we know we're doing it on borrowed time, but -- but let's grab it. Let's do it. That would be a bad -- a -- a --

MR. RAYMOND LAFOND: Yeah, I -- I understand the principle. I'm just wanting to relate it directly to the current policy of 15/30 percent. Like, a bunch of money doesn't tell me anything. I mean, like, it's just the -- the problem between 15 and 30 percent.

Is that something you agree with or -- or you don't? Or are you...?

MR. PATRICK BOWMAN: I -- I would -- I don't spend a lot of my time working in debt portfolios, but in my experience working with -- with utilities that have long-lived assets or financing large projects, the tendency would be to keep very low levels of -- of debts in -- in -- on short-term rates.

Now, fifteen (15) is -- is pretty low. It's not very low. Thirty (30) is -- seems very high, to me. But I can also understand how somebody who is actually far more versed in a portfolio analysis could come in and make an argument and says, No, no, you're all missing the point; in fact, 30 percent is not only cheaper than the other, but it's also less risky than the other. And they could put together an assessment, and -- and I think we could all look at it.

But -- but thirty (30) is a big number. Thirty (30) is a really big number for that. I -- I'm not -- I have not experienced and I cannot recall an example of where I would have seen a utility dealing with assets like this that would have variable rates up in the 30 percent range. It would be much, much lower and -- and locked in as early as possible.

MR. RAYMOND LAFOND: So I can conclude that Manitoba Hydro following the lower end of the scale of their 15 to 30 percent policy is not an issue for MIPUG?

MR. PATRICK BOWMAN: We -- we've never -- I -- I have never and -- and MIPUG has never argued that they would have any concern with a 15 percent level if it can be justified on the basis of, you know, a good portfolio analysis. I -- I would be sceptical of seeing a -- a -- something that says that -- that 30 percent makes sense, especially -- especially at a current time when you know you're going to be adding a bunch of debt.

In essence, if you're -- if you really are building the plant, if you're really going forward, then... How do I put it? Even though you may not have it financially on your books right now, the debt associated with that, you're starting to rack up the commitments associated with a debt like that. And you have created an interest rate risk and an exposure to variations in interest rates that aren't for the debt you're borrowing; it's for the debt you're about to borrow.

And that would probably be in a proper portfolio analysis, looking over a -- a five (5) to ten (10) year period, a good reason to say, I'm not going to be fifteen (15) to thirty (30); I might be way below that, because -- because I also have to consider this exposure, right.

THE CHAIRPERSON: But I do -- I do want to -- your -- your central thesis, I think, is the fact that Manitoba Hydro is intending to -- to increase its -- its reserves in anticipation of future events. Am -- am I correct in that?

I mean, that's your central argument, isn't it?

MR. PATRICK BOWMAN: Well, the argument is less before the Board in this hearing than it was in -- in the last one. But the argument that I've made is Manitoba Hydro's requires reserves. Call them retained earnings if you want, although as a concept, accounting retained earnings are -- isn't -- isn't perfect as a concept for reserves.

But -- but they required reserves. Those reserves benefit ratepayers. We ought put reserves aside, and we ought assess the need for more or less reserves in the context of how it benefits ratepayers. And benefit is tied to stability of rates. Okay?

I can accept the rationale that has led to the 2 1/2 billion that is there now. I can accept a rationale that says, You may have to reassess those levels as you move forward and add plant.

But I think the 25 percent ratio or the -- or the -- the $6 billion level that's shown in the -- in the IFF, when you get out to the latter years, there's reason to be sceptical that that's actually an amount of reserves that ratepayers will really -- that really will make sense for them to -- to help put aside to their own benefit. And -- and I don't know if it's not to ratepayer benefit, I don't know what other rationale we have for -- for putting those reserves aside.

THE CHAIRPERSON: At the moment, if we -- if the panel supports the Application that's been made by Manitoba Hydro, they're looking at net income for the two (2) test years of roughly 50, $60 million a year for a corporation that has revenues in the order of over a billion dollars a year.

And that, to me, does not seem to be an attempt to increase reserves, given the size of -- given the size of the Corporation's revenues and given the many moving parts that are -- that impact on Manitoba Hydro's revenues. It doesn't seem to me that that's an attempt to increase their reserves beyond a reasonable level.

But I'd like to hear your point of view on that.

MR. PATRICK BOWMAN: You -- you and I completely agree on that point, Mr. Chairman, and -- and it's one (1) of the reasons why I've said in PUB -- well, the question in PUB-11, I've -- I've put -- put some numbers that we'll -- I think we'll get to. But I've said I'm not taking issue with -- with the reserve levels that are there. But I think if the argument -- I think the argument this Board has to be a bit careful of is Hydro saying, Things are really bad, because we were targeting to be putting aside 160 or 180 or 200 million a year, and now we're only putting aside 60 a year.

And I think this Board has to assess and say, Is -- is 60 so bad, given what we're facing today? We may have been talking that level. And -- and maybe that was justified and maybe it wasn't. But how does 60 -- putting aside 60 today -- with some variability, but how does putting aside 60 today compare the situation we face today?

And -- and we're going to touch on this in a minute. But it's -- I would su -- submit it's not that bad. It's -- it's building on -- at a mean level. It's continuing to build over a period of -- of an IFF, where lots of other costs are going on, lots of other cost increases and pressures. And -- and it's led to retained earnings that are booked, which, as I said, I -- you have to be a bit careful about what we're focussing on that number. But it's led to retained earnings that are booked that are -- are higher than they've ever been in Hydro's history and that, in relation to many of the risks Hydro faces, are -- are higher as a percentage than -- than they were even two (2) years ago when we sat here.

So the situation looks a bit different. That's not to say sixty (60) is too much. But a 1.2 interest coverage target or -- or feeling uncomfortable because it's not two hundred (200) would -- I would submit, would be a problem. I think that would -- would not be justified on the -- on the evidence that's before the Board.

CONTINUED BY MR. ANTOINE HACAULT:

MR. ANTOINE HACAULT: Mr. Bowman, could you move on to, looking at the time, the issue of over-advancing costs in the context of a Crown-owned utility?

MR. PATRICK BOWMAN: Yes. Just to finish off, this is the last point under the sort of theory that we use when we come to assess an application, is the -- the long-term economics of hydro that we set out work whether you're talking about a hydro system that's 50/50 hydro and thermal, or they work whether you're talking about something larger.

But you practically can't get a hydro system much higher than, say, 50/50 hydro or two thirds (2/3s) hydro and the rest thermal without -- without substantial interconnections. And the reason is because your planning target is based on droughts, and it doesn't always make a lot of sense to back up a hydro plant that's subject to drought with another hydro plant.

There's -- thermals are much more efficient at that on that basis. And -- and for some of the reasons that -- that we discussed earlier, it would lead you to -- to be talking about -- about thermal plants. But what you do with pushing your hydro limits beyond that level, that 50/50 or the two thirds (2/3s), is the interconnections to the other jurisdictions.

And the interconnections are key, because you effectively don't build your own diversity. You build your strength and you let them build theirs, and you coordinate. And that's why the transmission is so essential to thinking about the -- the overall development plan and it's so essential to having a Manitoba Hydro that is 99 percent hydraulically generated energy. You could -- you could never achieve that without -- without interconnections, not on an economic basis. You never design for bill-back.

And it's a really successful model as long as you protect against two (2) things. One (1) is as long as you protect against the -- the risk of your transmission being unavailable or -- or your rights not being there, but the other one (1) is as long as you protect against over-advancing the hydro project costs.

And it's -- it's very easy to see that with something like Wuskwatim. It's probably the best case we have in front of us where ratepayers today are facing a Wuskwatim project that's going to be challenging economics for -- for many years to come. And -- and it could be --could be worse.

It would be worse if -- if we chose a particular combination of -- of things like accounting practices, like depreciation, that made it more -- you know, put more costs in the early years, or if we made a broader focus on salvage and putting aside the money today so that a hundred and forty (140) years from now, people can take it down. Those things would make Wuskwatim look worse in -- in the books today.

The problem that arises when you do that is that when you get to the next project, like a Keeyask or Conawapa, and you've take what are -- what are, to economists, the wrong kind of dollars, the ones that don't grow with time, and advance them, you decrease the net present value of the project. You make it look like a worse project.

And you can -- if you're not careful, you can end up skewing your decisions and making the wrong decision on long-term assets because you've over-recognized the cost of that asset in the early years. You can end up being in a situation where if -- if -- you know, if we had Wuskwatim's costs higher, people may have chosen not to go ahead with it. They may have found other alternatives. We may have gone more thermal.

And there's a classic example of this. Manitoba is actually a poster child for an example of this. With the Church -- Nelson River Diversion -- Churchill River Diversion and -- and Lake Winnipeg regulation. When the decision was made to go north, it was pretty clear that the way to develop the Nelson River was to divert the Churchill into it, and get some storage on Lake Winnipeg, and build your plants working your way down the Nelson.

But the thing that was going to kill the development was the transmission. It's a massive investment. You have to invest for the future. You're putting in place a large, large transmission system, Bipole 1 and 2, which can carry many plants. But for the first many years, you only have one (1) plant on it. And so you're not -- don't have a lot of -- of power flowing to be able to pay for that asset. It's -- it's also a huge capital investment, and it had some

-- some technical risk associated with it.

And I've been through many discussions with -- with people who are involved at various points dur -- in that period and -- and read a number of documents, and it was -- it was not an easy decision to go north. And even Mr. Warden has testified that they were -- Hydro was on the cusp of being the Manitoba ther -- thermal electric port. Coal in the South was a very, very competitive option. You know, and absent -- and that's a result of capital cost barriers.

And what eventually solved that problem and got the project moving was Canada coming to the table and saying, We'll take on the -- the HVDC Bipole system. And if you look back in Hydro's books, you'll find that Canada built the HVDC through AECL and financed them, and they financed them at an excessively favourable lease rate.

It was actually a lease rate that was underpaying even for the interest, never mind sinking -- never mind straight-line depreciation or sinking fund depreciation. It was like negative depreciation. It was underpaying for the -- the interest. But it had a stepped leased rate that led to very low costs in the early years and costs that increased as that asset became more and more used.

As a result of Canada being able to -- to come to the table with that, it was able to shift the economic assessment and the economic decision in a way that made the projects favourable. That turned out to be a fantastic decision. Canada was paid off in full. They were paid off early actually, I be -- if you look in Hydro's statements, it was in the '90s, is my recollection, which is early.

And -- and it -- it changed the -- the framework by making sure that things that are in -- in unitary dollars in the pas -- I don't -- original-cost dollars showed up later in the period rather than earlier. And -- and that's -- that's why, you know, when we come to review these things, one (1) of our questions is: Are you reflecting capital-related dollars in the period where those benefits arise?

And if you're not, you may be meeting an accounting standard, you may have room within an accounting standard, but you're -- you're actually undermining the proper economic test of a project.

MR. RAYMOND LAFOND: Can I intervene here? And I -- I think you started with the Wuskwatim example?

MR. PATRICK BOWMAN: Yeah.

MR. RAYMOND LAFOND: But this -- this

is in place. This is behind us. There's nothing we can do about it now. Now we're talking about the new projects. The new projects are going to be considered in the NFAAT. The Bipole 3 and Riel Station are for reliability reasons.

And -- and -- and so I'm not sure that the discussions you're heading into now are helping me in -- in -- in making up my mind as to where this panel should go and what the issues are on your side.

MR. PATRICK BOWMAN: All right. I'll -- I'll take the comment and just say that the -- there's a lot of decisions to be made as to what period costs show up in, whether that's how you treat overhead costs or whether that's how you treat depreci -- depreciation costs and a bunch of things we're going to go to.

And people will make decisions about what period to have those costs show up in based on various objectives they're trying to achieve. And accounting standards will have one (1) set of objectives, and -- and some other pressures will have different objectives. And I'm saying that, as a Manitoban looking at the long term, as an economist looking at the -- the economic profile of projects, as a -- someone who's trying to design rates that are --

are fair to today and the future -- and I'll -- we're going to come to some examples -- there is a big danger of taking those costs and recognizing them in too early a period.

That's for existing assets. That's for Kettle. That's for even -- well, Pointe du Bois is an exception, but Kettle, Limestone. It's for Wuskwatim. It's for any of those -- that -- those component of assets. It's probably less so for things like distribution. And -- and it -- a decision that's made on a policy aspect is going to make a difference in Conawapa if it's built.

And this is why, when we look at things like depreciation studies or overhead policies or some other aspects like that, it's not just a matter of looking at what's the Iowa curve and what -- what calculus underlies it. It's a question of how is it shaping the decisions that we are making that we need to make today and that need to make in the future, and the fairness between different groups of customers and, the extreme, the -- the -- how is it shaping future decisions that are going to be made and possibly shaping them in a way that is -- is too short-term focussed and will ultimately not be as good for Manitoba as the -- the way that people made the decisions when they made some of the bold decisions to go north and the like.

And that -- that's why this context is so -- is so critical, even in -- even in a single GRA, because these policy decisions and these -- these approaches are not just going to apply to -- to Kettle or to Wuskwatim. They're going to apply to Conawapas and the like too. And they're -- they're fundamentally fairness questions.

THE CHAIRPERSON: We are -- you are talking about ELG versus ASL now, aren't you?

MR. PATRICK BOWMAN: ELG versus ASL is one. The overhead is in the same type of category. Any -- any of those aspects that relate to -- relate to full-cost accounting, those -- those pieces.

MR. RAYMOND LAFOND: But -- but when you talk of great danger, it seems to me that the earlier you pay for the facilities does not add danger; it lowers the risk. I'm not saying that's what it should be. But I don't understand the great danger comment, because it reduces the risks. And -- and again, I'm not proposing that a certain level of risk not be maintained.

But I don't understand the statement of -- of a great danger in paying earlier than later, because, to me, it lowers the risk again.

MR. PATRICK BOWMAN: There's two (2) pieces to it. One (1) is the question of fairness, which is inherent to the rate setting. And that's not the danger issue. That's the fairness question. And the other is the danger of making the wrong decision because you've been -- you've been dealing with a set of -- of numbers that -- that pays too soon. And it's --

MR. RAYMOND LAFOND: That, I do understand. The issue was a great danger about accounting principles where overheads are ca -- are -- are capitalized to a lesser extent than they were before or, again, where depreciation is actually at a higher amount than before. That's what I was referring to. I -- and I think we discussed the issue about major projects being built too early.

We -- but I thought this was what you were looking at, in terms of accounting principles and standards, which you qualified as subjective.

MR. PATRICK BOWMAN: I don't recall using the word "subjective", but I -- I --

MR. RAYMOND LAFOND: Oh, yeah, a few minutes ago.

MR. PATRICK BOWMAN: If -- if anything,

the -- the danger that I would relay comes fundamentally from the view, as an economist, that you can take something that would otherwise be a good decision and, by applying a particular approach to the mathematics of that, conclude that it's a wrong project and go forward with the wrong path. And -- and in that way you have a -- a complete dead-weight loss to the economy, to use the technical term.

You would ha -- you would lose an -- an opportunity. You would -- you would miss out on -- on a future that's just like the decision that people could have missed out on to have the Nelson River developed. Because, in the '60s, if the Bipole had to be paid for by the customers in the '60s and '70s, the '70s particularly, it would have been too onerous, and they would have built coal.

Like it -- it's almost that stark in that one (1) decision. And I can -- I can relay many other cases where we've worked on hydro projects or -- or hydro-related projects and the thing that you lay awake at night at and you rack your brains and you do your work with all the different teams on is: How do I deal with these front-end effects, and how do I minimize these front-end effects? Because that bump, that early years' impact on ratepayers is -- is something that's -- that -- that will -- could lead to the wrong decision.

That's not the fairness question. That's the resource allocation question. That's the -- and that's where the -- the danger arises. Fairness has a different argument that I can touch on in a minute.

MR. RAYMOND LAFOND: Okay. Can -- can you develop the -- the wrong decision? I understand in terms of new generation stations, for instance. But relate it to accounting principles, which you stated depreciation being one (1) of them.

MR. PATRICK BOWMAN: Well, it's --

MR. RAYMOND LAFOND: The issue is we're moving from too many issues at the same time. We need to deal with one (1) at the time, whether it be depreciation, whether it be the construction of a new project five (5) years in advance for export purposes. But I think we can't all put them in the same pot.

I mean, we have to look at them separately and discuss the principles between -- behind each of them separately so that we can have a proper understanding of exactly what you're -- the issues you're considering and the proposals you would have in lieu of what's being presented to us.

MR. PATRICK BOWMAN: Mr. Lafond, it's probably a -- a excellent time to move to that. I was just finishing off on the section that said: What are the principles that -- that guide us in the recommendations we're going to make? If -- it's probably a good time to move on to some of those -- those recommendations.

And -- and to be very specific on those, the two (2) that I would highlight here would be the -- the choice on depreciation methods and the overheads. If you permit me, I would probably just touch broadly on the other cost pressures that are -- exist in this Application, because it's not just a submission based on -- on accounting approaches. The accounting approaches is one (1) of a few things that we talked about. And, if anything, it's -- it's not the first one that we would -- would look to go through, if that's all right.

MR. RAYMOND LAFOND: Great. Let's go at it.

CONTINUED BY MR. ANTOINE HACAULT:

MR. ANTOINE HACAULT: Now, can you go through then, at a very high level, in IFF12 the pressures and the key things that InterGroup has looked at?

MR. PATRICK BOWMAN: Sure. We reviewed IFF11-2 originally -- or submissions based on IFF11-2. IFF12 came a bit later. And we've updated some of that and said that we've assessed the submission against the -- the claims Hydro made about what was driving the costs. And some of those bore out and some did not.

Hydro said that export revenues were down, which is true. We saw that export revenues in IFF12 -- when I'm looking to the '12/'13 year, to take an example, export revenues are down 226 million, compared to what they were in IFF09-1. I think we've heard that part.

What sometimes gets missed in that is the corollary that there are a couple of variables that are run hand in hand when you run a hydro system. It's not just export revenues. It's fuel to supply aspects of the generation, and it's purchased power. And the fuel costs and the purchased power costs, which are a complement of that piece, and imports which is a part of that purchased power, are down 107 million.

And they're down 107 million for many of the same reasons. Fuel costs have dropped. Because exports are down, we would operate the system slightly differently, which will change the fuel and purchased power costs. And import costs are cheaper. So that is the scenario if you -- if you look to the IF -- you compare IFF09-1 to IFF12, you'll see the fuel and purchase power number dramatically down.

You have to remember that IFF12 does not run a scenario in most of these pieces, especially when you look further out. It runs an average, an average which includes droughts and floods. And a lot of that cost shows up in droughts. The droughts have become much cheaper to serve. And we'll -- we'll show you something -- that in a minute.

The IFF09-1 worked with a interest coverage target of one point two (1.2), which Hydro continues to claim in its target. That is a net income of about 125 million in this -- in this -- in the previous GRA. And the IFF12 only has a net income of about 53 million, so it's down by 72 million.

And in the way that an economist looks at these applications, that fits under -- in under cost. That is a cost of operating the system. That is a cost of -- of setting rates that are stable.

And so the question is: Is this also a savings as a result of what's happened in the market, the fact that your net income is -- is 53 million versus a hundred and twenty-five (125)? In other words, can be justified on cost factors that you're going to have a lower level of contribution to reserves.

And so we set out some information on this in an IR that was asked to us by Manitoba Hydro -- MH/MIPUG-5 -- or MH/MIPUG-3, sorry. And that might be one that's worth getting together.

(BRIEF PAUSE)

MR. RAYMOND LAFOND: Are we referring to PUB/MIPUG-1 -- 1-3?

MR. PATRICK BOWMAN: MH/MIPUG-1-3. It's a three (3) page response, with some graphs on pages 2 and 3.

(BRIEF PAUSE)

MR. RAYMOND LAFOND: Can you -- is this in your book -- MIPUG book?

MR. ANTOINE HACAULT: No, unfortunately, it is not, members of the Board.

MS. ANITA SOUTHALL: Member Lafond and members of the panel, I have a PUB reference book of documents coming up --

MR. RAYMOND LAFOND: Yes, this --

MS. ANITA SOUTHALL: -- Volume V.

MR. RAYMOND LAFOND: This is a document -- this is this major document there which we all read la -- yesterday, the PUB/MIPUG-1-3, and we all have it.

MS. ANITA SOUTHALL: I'm just going to let Mr. Hacault make clear which document he's talking about. If I'm following though, I do have it in my new reference book of documents which is pending, so.

MR. RAYMOND LAFOND: Whoops, reference Section 2.1, page 2-2, MIPUG principles. Well, that's PUB/MIPUG-1. That's not the one, okay.

CONTINUED BY MR. ANTOINE HACAULT:

MR. ANTOINE HACAULT: Go ahead, Mr. Bowman. I believe people have the document now. To which page do you want us to refer?

MR. PATRICK BOWMAN: It's pages 2 and 3 will have a series of three (3) graphs on them, if people have that. Now, this is a question posed to us by Manitoba Hydro. It wasn't a PUB question; it was a Manitoba Hydro question.

And their question is: Why is it, in our view, that a reduction in net income is considered a savings? And it's -- the response deals with why we would view that -- why I would put into the information that this is a reasonable and practical aspect of the change in the market conditions.

And what you'll see at the top of page 2 is a graph that's showing you the net income that would arise. And -- and these are -- these are referenced to Hydro documents. They're not our numbers. These are from Hydro's system.

It's the net income that would arise in each given year of flow conditions, were that flow to be repeated based on today's system. So it's not what Hydro made -- made in 1916. It's: What if the 1916 flow happened tomorrow, or happened in 2013/'14 in this case?

And they're indexed to the net income that was built into the mean in the particular IFF. So IFF09 had $125 million net income for '13/'14. And so this graph is indexed to show at the dotted line the 125 million, which is what was -- which is the mean of all of the situations, okay.

And it shows what happens if you have the flows from -- for example, the 2004 drought repeat itself, it would have been a one (1) year loss of almost $600 million. It's that very large negative bar. If you had a 1995, I believe it is, flood happen, you'd have a net income of almost pos -- positive 400 million.

So this is all of the different water conditions, and it shows the risks and the cyclical nature of what -- what -- of what customers were exposed to based on the numbers that were prepared in IFF09-1. So it reflects export prices from that era. It reflects domestic loads from that era. It reflects pricing assumptions on gas. It reflects all of those aspects and what it would to do net income.

And it emphasizes why, when we get talking about risks, we talk about five (5) year droughts, because five (5) year droughts, you can see the '88 period which is the five (5) year drought that Hydro reports in its -- in its financial statements. It also talks about -- Hydro's also talked about the '30s drought, the one that's shown here as six (6) -- it's actually six (6) years of bad water. They call it a five (5) year drought for indexing.

And it shows the -- the impacts of that through that period. They've called that a worst drought, but that's the one they -- Hydro makes a point, they plan for that one but they're not as confident on the water records from that era.

As you go down to Figure 2, you see what that graph looks like; again, with the exact same axis and the exact same height, what's happened to those bar heights as the result of the change moving to IFF11-2. So what we have in IFF11-2 is a mean net income, or a -- or a net income, at least, in the year -- we're indexed to, 2013/'14, of 68 million and the distribution of the bars about 68 million. And those are the results that could arise under different flow conditions.

And you'll see there's no $600 million negative years anymore. There are years of -- the five (5) year drought has years that are barely a net loss in that -- in that scenario of that IFF. And it adds up to -- the earlier -- the earlier graph, the one from the last GRA, the IFF09, would have had a 1930s event being the losses in nine (9) years out of thirteen (13), and a total of 1.88 billion in net losses over thirteen (13) years.

And if you move down to the second graph, which is where we are now, you would see the worst five (5) year droughts total 700 million in net losses, which would be the -- the '80s loss -- graph, and about 962 million over the full thirteen (13) year period in the '30s. So that's been cut basically in half.

MR. ANTOINE HACAULT: So --

MR. PATRICK BOWMAN: Now -- yeah, go ahead.

MR. ANTOINE HACAULT: -- the lower export prices and all the other circumstances that we now have before the Board actually reduces the variability and the -- what I maybe call the extreme nature, but the vari -- extreme variations that we see.

Is that correct, Mr. Bowman?

MR. PATRICK BOWMAN: Yes. The -- the less reliance on high export prices and less exposure to high gas prices means that flow variability is no longer nearly as costly for Manitoba Hydro.

Now, we went here for the purposes of particularly showing Figure 3. And Figure 3 is what happens when you take the exact same data that's in Figure 2 -- in other words IFF -- the new IFF11-2; we didn't have 12 done, but it wouldn't be much different. Take the new IFF and you say, But what if I kept that 125 million net income I had? What -- what does my flow variability about 125 million look like?

And you see that if you go to that situation, it doesn't even really make sense to talk about five (5) year droughts anymore, because there's no net loss in three (3) of the five (5) years. If you really were targeting $125 million as contributions into reserves right now, you would have very few years where you would actually be withdrawing from those reserves at all. There's -- and -- and the largest one (1), the -- over the thirteen (13) year period of the '30s, you would have net losses of over 111 million under that. The 2004 drought would have been paid in one (1) year.

MR. ANTOINE HACAULT: Now, Mr. Bowman, to understand the risk numbers that are put into Hydro's documents, those numbers are not expressed as net losses; they are expec -- addressed as a variance from the expected revenue.

Is that correct?

MR. PATRICK BOWMAN: That's correct. And I'll explain why that makes a difference. If you go through Hydro's five (5) year net -- I'm going to go to the -- I'll look to the Figure 2, now, which is the IFF11-2 as it -- as existed in 11-2, and you go to a five (5) year drought, we would show that five (5) year droughts total -- the five (5) year drought in the '80s totalled about 712 million in net losses. And, again, this is indexed straight out of Hydro's numbers, 712 million.

Hydro would also calculate into that

that it really had wanted to be making a contribution to reserves in that year. And so it will look at the path it thought it wanted to be on for retained earnings and compare it to the path it was actually on and consider that a difference. It's a much, much bigger number. And it's because it's comparing to the -- what would have been, had we not been on a drought and we had been at normal water.

In other words, it's -- the difference between the two (2) scenarios is whether you're talking about the extent to which you tap reserves, which is the way that we're presenting it, or the extent to which -- where Hydro presents it, to where, effectively, they're -- they're lamenting that they're not able to save for a drought during a drought. They would consider that a negative impact.

And -- and I don't think those are -- you know, the numbers say what the numbers say. They're fairly presented. But I don't think it's the fair analytical assessment for -- for how much impact a drought can have on your -- on your retained earnings during that period.

MR. RAYMOND LAFOND: So can I simply conclude that based -- because of lower fuel and power purchases, as well as fuel exports, there will be less volatility, so, therefore, the mean net income of $68 million per year is all that's required under IFF11-2, versus a mean income of 125 million per year was required under IFF09-1, correct?

MR. PATRICK BOWMAN: That's exactly -- yes. And that's why we would call this, effectively, a savings that has arisen as a result of the changes in the market. Not only are our export revenues down and droughts have gotten cheaper, but it also means that your need to build up reserves for the droughts have -- has -- has been reduced.

MR. RAYMOND LAFOND: Okay. But I understand that, I think. But the issue you're bringing on behalf of MIPUG is that $125 million per year net income is not required, but rather 68 million -- well, Hydro is asking for something like $60 million in its current rate structure, correct?

MR. PATRICK BOWMAN: Well, sixty-eight (68) is a number out of -- of IFF11-2. And the question is: How do you calculate that sixty-eight (68)? And that's where we're going to go now.

But I was saying, when we review an application that says, We're here because drought export prices are down and gas prices are down, and that's 226 million in the year we're looking at, and when the members say, is that right? Did their -- did they really have a two hundred and twenty-six (226) negative variance? The response is, yes, but there's offsetting features. And one (1) of those features is they save about 107 million on fuel and purchase power. And the other offsetting feature is droughts have now gotten cheaper, so you don't need to be putting quite as much aside anymore.

And so both of those are correlated fully the same underlying features that drive us to say that the -- the impact of the export market drop, in terms of a ratepayer's perspective, is -- is probably overstated. So that was -- that was the basic conclusion when we're asked to look at the -- the rate increase being requested.

MR. RAYMOND LAFOND: I'm sorry, the $60 million is overstated as opposed to the 68 million mean indicated there? Could you please...

MR. PATRICK BOWMAN: No, I'm saying that -- first of all, the sixty-eight (68) and the sixty (60) are -- are the same number from different IFFs. So they're the same --

MR. RAYMOND LAFOND: Yes.

MR. PATRICK BOWMAN: Okay. So I'm not making a distinction between sixty-eight (68) and sixty

(60). What I'm saying is, when Hydro says they have a -- more than $200 million change due to export markets, we're pointing out that they have some other offsetting changes as well. It's not as dire as the $225 million number looks.

MR. RAYMOND LAFOND: I agree.

MR. PATRICK BOWMAN: Okay. So the third feature that we looked at was the interest rate. Clearly, interest rates are down. Clearly, they're related factors. They arise out of the same drops in loads and recessionary factors that is part of the reason the power prices are down.

And so by the time we're done looking at -- at the overall features that has happened from Hydro from an -- an -- related economic events, the actual impact on -- on their costs or their net income or their need for higher rates is -- is actually pretty small from that event.

And it was one (1) of the reasons why we said, The world looks a lot different now than it did in the last risk hearing. And we've now learned that Hydro's exposure to things like booming US markets and high export prices is not nearly as high as it looked, because there are correlated factors that means when those markets drop and recessions hit and interest rates drop and fuel gets cheaper, and the other factors that happen to have combined and moved together, the impact is much smaller than -- than I think this Board, or -- or even people -- me, appearing before this Board, appreciated in -- in the last hearing.

CONTINUED BY MR. ANTOINE HACAULT:

MR. ANTOINE HACAULT: Thank you. Dealing with the issue of reserves, could you comment on the type of reserves that New Brunswick, Newfoundland, and Labrador have had in recent history?

MR. PATRICK BOWMAN: Well, we had a -- an IR that asked about the ability of a utility to operate with very low -- low retained earnings levels. And we pointed out some of the things that I said earlier, which is if you're -- if you're on the development end of a -- of a project and you're backed by a government, you don't necessarily need a whole bunch of retained earnings. You're going to -- you're going to be able to borrow the money you need to develop.

And that -- so we said that -- we -- we pointed out that the retained earnings and the debt-equity ratios were quite low in some of those examples, including Manitoba Hydro's. So that's one (1) of the features.

The other thing that we commented on is -- is whether the retained earnings, as reported, is in fact fairly representing a -- a risk protection concept numerically. It's definitely representing it directionally and in magnitude. But retained earnings in the balance sheet is one (1) component of an overall picture of the utility.

And it can be -- again, from a commerce perspective it can be a number you have to be very careful about when you're dealing with a utility that has assets booked in historical costs that are -- are quite low and they're dealing with certain features on their balance sheet like major depreciation reserve variances that are positive.

And let me go on and explain that. If we were sitting here today and the calculations and reserve study had concluded that Hydro had been amortizing its assets over too long a period -- now, of course, it tended to conclude the other. They could go longer. But if it had concluded they were amortizing over too long a period and, as a result, they hadn't been setting aside nearly enough depreciation and they really needed to ramp up the depreciation, there would be a tendency to look at that, when someone is doing an assessment of Hydro and, in my language, put a little bit of an asterisks next to retained earnings number and say, Oh, sure, that's an audited retained earnings number, but -- but just hold on a second. That's only valid to the extent that these -- these assets that have very little depreciation against them is -- is carried forward as -- as a value.

If -- if your assets are really under-depreciated and you really should get on and -- and depreciate them faster, you'd better be really careful about the -- the level of that value reported, right? It -- it's a little overstated, compared to what -- what we now know about the assets. But we're not dealing with that. We're dealing with it on the other side.

Now, I want to be careful. I've answered an IR on this. I've been quite clear that I don't sit here saying a depreciation surplus is a refundable balance or is something that should be credited back to anybody. But there's no doubt that it represents a certain -- a certain value, a certain advancement of -- of paying down assets that we now think are going to last longer. And -- and whether it shows up as retained earnings or not, it is in effect one (1) additional level of -- of protection, in light of the -- the valuation or the -- the balance sheet or the assets that are there.

An accountant is not under -- is not undermining the -- the reporting of the retained earnings, but it is saying that the same asterisks could easily be there and saying that the -- that -- that for this -- for this reason, along with the fact that we have these very valuable assets being reported at a historic cost, we have to be a little bit careful about saying $2.534 billion is a -- is a terribly indicative number about just how much financial protection is -- is inherent in the Utility.

(BRIEF PAUSE)

MR. ANTOINE HACAULT: And the numbers in that accumulated difference, depending on whether you include salvage or not, range in the $500 million difference to -- up to 900 million if you take ASL without salvage. Those are the numbers that we've heard through Manitoba Hydro evidence.

I won't say that it's exactly those numbers, but in those ranges, correct?

MR. PATRICK BOWMAN: It's in that range. Now, the other thing that we were expected to take a look at is the levels of spending. These really show up in Section 4.1 of our submission, and page 4-3 in particular. And these are of the same data. If people -- people may want to get that out.

(BRIEF PAUSE)

MR. ANTOINE HACAULT: So we're looking at Section 4.1, around page 4-2, 4-3?

MR. PATRICK BOWMAN: The graph at the top of page 4-3 in particular. I have to work with a counsel who's visual, so I will end up using a lot of graphs.

MR. ANTOINE HACAULT: It's because I'm not an economist or an accountant. I'm just a lowly lawyer.

MR. PATRICK BOWMAN: Now, this was prepared, again, straight out of numbers that are referenced in the footnote, which I'm sure lawyers enjoy reading. It is keeping track of three (3) separate things. One (1) is Hydro's top-line total spending, the red line at the top. One (1) is Hydro's values that make it into the IFF, which is the blue line, which ratepayer -- it's what ratepayers are ultimately --

MR. RAYMOND LAFOND: We don't have colours.

MR. PATRICK BOWMAN: Oh.

MR. RAYMOND LAFOND: So please tell us the --

MR. PATRICK BOWMAN: I'm --

MR. RAYMOND LAFOND: -- symbols.

MR. PATRICK BOWMAN: I'm sorry. The dashed line at the top is the total spending amounts before capitalized amounts and overheads and the like. The solid like that's marked, "Ratepayer cost," is what makes it in the IFF. And the dashed line with squares at the bottom is the adjusted line where Hydro takes out the adjustments that it says ought to be removed in order to do an apples-to-apples comparison, okay.

So we imported all three (3). This was based on IFF11-2. If you ran the IFF11 -- or IFF12, all the dots go up, as they have been known to do, some materially, some not. But at the end of the day, the question that we're being asked is: What's happening to Hydro's costs that it's putting into rates, what is -- what is driving these increases?

And this is focussing on -- on the overall spending. And we used the numbers, and -- and this reflects some of the -- I think this underlies --

emphasizes some of the comments you'll see in past Board orders about concerns about Hydro's spending levels.

The percentages are lower now than they were at the time of the 2010 GRA. You can see the degree of growth that was happening in the top line, the total spending cost, the dashed line, which in the last GRA was being quoted at around 5 percent.

You can also see the lower numbers that Hydro is quoting in the very bottom lines. In the last GRA, those were also showing closer to 5 percent. And this one, people have been talking about more like inflation; but again, that's an adjusted number. And -- and then you see the one that's actually affecting ratepayers, which is the solid line in the middle. And that's the one that's emphasizing how much the overall O&M category is -- is affecting people and -- and moving -- moving upward.

Now one (1) feature of this is the DSM spending, which makes it into O&M and would otherwise have been in depreciation. So part of the reason for that last upward tick is the -- is the change in how -- the policy for how to account for DSM. And we'll talk about that in a minute. But it's -- it's the only component of this that has an -- an offset in an --

another area, to the best of my knowledge.

So our first basic conclusion for -- to the -- to the clients was export markets are down. As a result of them being down, the impacts on Hydro aren't nearly as big as -- as Hydro would like to portray them. But the impacts on Hydro from costs increasing continue to be there, including, particularly in the top-line costs, the ones that can sometimes get hidden by things like capitalization, as well as in spades in the -- the middle line, which is the one (1) that ratepayers effectively have to pay for. And --

MR. RAYMOND LAFOND: Yes, ratepayers have to pay for it, but that includes DSM, which was not included before, which exaggerates the 8.9 percent per year. That would really have to be adjusted, because the depreciation was another category of expenses; that is, depreciation and amortization were reduced by a similar amount.

MR. PATRICK BOWMAN: Right.

MR. RAYMOND LAFOND: So we're comparing -- we're not comparing apples to apples here when we're comparing 2013/'14 with 2010/'11, for instance.

MR. PATRICK BOWMAN: Yes. And that would be about $23 million so that that -- I haven't --

I haven't done the math on it, but that final number, which is five thirty-one (531), instead of dipping above the five hundred (500) line, would -- would just sneak above it rather than -- rather than shoot above it in that final year.

And, again, this is 11-2, before the -- when the IFRS was being implemented then. Now, it would actually be pushed out one (1) year. But it's -- it's a total of 23 million of -- of this graph, so...

CONTINUED BY MR. ANTOINE HACAULT:

MR. ANTOINE HACAULT: And, Mr. Bowman, on DSM, we will be getting to that. There's actually a decrease in DSM spending that's occurring. It's not equivalent offset. We'll be getting to those numbers.

MR. RAYMOND LAFOND: No, we are aware of that. The issue was to really know what the impact of DSM is on that line, because that line is not actually comparable, because there are -- there -- isn't there the other factor also of less overhead being capitalized based on IFRS stipulations?

MR. PATRICK BOWMAN: M. Lafond, the DSM is a valid offset. And if you'd like, I can update this to IFF12, and I could show the difference in the DSM by splitting that line.

The -- the difference in the overhead in the IFRS impact is exactly what you're seeing in -- in the gap between the line called "Total spending" and the gap -- and the line called "Ratepayer costs." Those narrow, which is exactly the overhead feature you're talking about. And I -- I can go to that now.

MR. RAYMOND LAFOND: But that has a major impact on that line also?

MR. PATRICK BOWMAN: Absolutely, yes.

MR. RAYMOND LAFOND: So -- so the 8.9 percent, we cannot rely on it as a panel?

MR. PATRICK BOWMAN: Well, as I said, I'm happy to update it for IFF12, which would add in the extra year, but -- and it would -- it would show the difference with the DSM. But I -- I think you can rely on it. Its -- its number is directly out of an -- out of the IFF. The only one (1) that has an -- an offset in another area in the same year that I'm aware of is DSM, and I'm happy to show that as -- as a split.

And -- and my guess is that eight point nine (8.9) would be -- would be somewhat lower, in part because it happens in a later year now, when you compound. But it would still be high enough to -- to emphasize concern about what that's doing to ratepayers.

MR. RAYMOND LAFOND: The impact of DSM plus the change in capitalization of overhead?

MR. PATRICK BOWMAN: Well, part of the reason, if -- if you want to look at a line that is not burdened by capitalization of overhead, it's the very top one (1). That's the one (1) that's telling you what people are spending.

MR. RAYMOND LAFOND: No. That's not my com -- that's not my question. My question is: They've changed their policy, in terms of the percentage of overhead being capitalized due to IFRS stipula -- not IFRS, but Canadian GAAP stipulation?

They've implemented that already?

MR. PATRICK BOWMAN: Yes. And that's the difference between the -- the solid line and the one (1) with the squares. The one (1) with the squares is the line that Hydro presents as the line it would like to be judged on. The solid line is the one (1) that's making it into rates. That's -- that's the way that we -- we've prepared this table.

MR. RAYMOND LAFOND: I understand that. My question is that there's not just the distortion caused by DSM but also by the change in policy, in terms of percentage of overhead expenses being capitalized?

THE CHAIRPERSON: Don't forget pension adjustments in that -- that mix as well.

MR. RAYMOND LAFOND: Yes, in addition.

MR. PATRICK BOWMAN: Well, I -- the DSM is a unique feature, because it is a change in this area that is offset by a change in the same year in another area. The others are -- are reflected in this table and are -- are properly reflected in this table, in my submission, because they are part of the basket of costs that are being put into an IFF and that are making up calculations of necessary rate levels.

Now, they -- they may be driven by a pension reevaluation, but I don't -- I don't dispute the -- the cause. And -- and they -- Hydro may back them out when it puts in the line with the squares where it says that's the line that it would -- it would comment that it'd like to be judged on. But I'm saying as a -- as a ratepayer, when -- when the bill arrives and someone says, Well, it's -- don't -- don't worry, it's just because their pension was revalued it's -- it's very much still a rate impact.

And I think when you're trying to deal with a rate impa -- a ratepayer perspective it has -- and it has no offset anywhere else in that same year in the IFF, it is very much an impact on customers.

CONTINUED BY MR. ANTOINE HACAULT:

MR. ANTOINE HACAULT: Thank you. Now, on the cost impact it was -- your visual lawyer had also referenced some of the graphs that you had prepared in response to PUB Interrogatories 12 and 15. So that was PUB/MIPUG-12 and 15.

(BRIEF PAUSE)

MR. RAYMOND LAFOND: And this is which page in your pre-filed testimony?

MR. ANTOINE HACAULT: The graphs themselves -- these are interrogatories that were asked by the PUB of MIPUG. And I had saw some of the Board members have that package. It was a package that said, "PUB/MIPUG," and it's starts MIPUG-1, MIPUG-2, MIPUG-3. They were all questions asked by this Board of InterGroup.

MR. RAYMOND LAFOND: You're looking at PUB/MIPUG-1-3?

(BRIEF PAUSE)

MR. ANTOINE HACAULT: The ones in particular I drew everybody's attention was the twelfth intercro -- interrogatory and the fifteenth interrogatory. So it's MIPUG-12 and MIPUG-15. The one with the graph is MIPUG-15. It's on page 2 of 3.

(BRIEF PAUSE)

MR. RAYMOND LAFOND: I think that's what I'm looking at on your November 16th pre-filed testimony, page 4-5.

MR. ANTOINE HACAULT: You're correct that there's a similar graph there, but this one has been updated in the MIPUG-15. So that was why I was referring the parties to the MIPUG-15, page 2 of 3.

(BRIEF PAUSE)

MS. ANITA SOUTHALL: We're just going to attempt to locate that for the panel members, Mr. Hacault.

(BRIEF PAUSE)

CONTINUED BY MR. ANTOINE HACAULT:

MR. ANTOINE HACAULT: Yes. We'll start with the graph on page 2 of 3 of MIPUG's response to the PUB's Interrogatory 15. The difference, Board members, between this graph and the graph in the originally filed testimony is that there was further information, as I understand it. And if you compare what was reproduced at page 4-5 of the original evidence, you'll see that the 2013/2014 number is -- is different. It actually shows the adjustments for the CGAAP changes.

And I'll let Mr. Bowman address the issue of employee spending and costs.

MR. PATRICK BOWMAN: So the question here is in relation to the overhead. And it ties back to the principles that I was setting out earlier about caution, about it repres -- of -- reflecting the cost of a capital program in -- in rates or in costs or in decisions before those benefits ever show up.

And Hydro, we've heard, has implemented various aspects of changes to its overhead which tended to reduce the reflection of costs into capital and increase the reflection of those costs into -- into current day rates. And it was -- it referenced that it did those in part in response to comments by this Board and in part in preparation for IFRS, although it did note that a number of those changes it's considering to be CGAAP changes, because they're permitted under

CGAAP.

This Information Request was PUB asking us at the time if -- if overhead costs don't meet capitalization criteria under IFRS, should they be deferred. And our comment was that you have to approach decisions that affect rates from a perspective of fairness and the test Mr. Williams referenced, in terms of just and reasonable, not just the test that arises when you look at something like an IFRS or -- or things that are permitted under CGAAP.

And the fairness and the just and reasonable tests, combined with the concept of ratepayers paying for the assets they're using and not the assets they're not using, means that you have to look at Hydro's organization and say: Well, what is properly costs that are being incurred that relate to future benefits and future assets, opposed to current assets?

And that's not quite the same test that you would use under an IFRS or under a CGAAP. And -- and the main reason is because they have different motivations. When I've been dealing with people who deal with accounting standards, they have various features that drive decisions on how you implement and how you set accounting standards that are designed to do things like take out discretion and to make sure that you're focussing on incremental costs - pure, truly avoidable, incremental costs.

It's an effort to avoid creativeness. It's an effort to avoid what Mr. Hacault calls mad accounting magic. And so above all, the -- the accounting standards are aimed at -- at consistency and clarity and -- and avoiding estimation and -- and discretionary decision making, while rate making is -- is coming from a different perspective. It's coming from a perspective of fairness. It's coming from a perspective of when benefits arise. It's coming from a perspective of how you treat one (1) ratepayer group in time versus another and how do you treat different classes.

And for that reason, the rate making principles are much more aligned with and comfortable with the full-cost accounting environment, whether that's in cost of service or whether that's in overheads, than an accounting standard is. And it's part of the reason why people who have been pushed in this direction have sought to avoid having to implement accounting standards that -- that just -- that, rightly so, have a motivation in a different direction than -- than rate making.

Sometimes those two (2) converge. And net salvage is probably a good example of that. The IFRS will say you don't record a net salvage because net salvage, as utilities have traditionally done it, is a very discretionary concept. You -- you use that net salvage when you don't have a physical liability, when you can't point to when something might happen, when you can't point to the agreement that says you have to spend that money.

And the accountants and the -- the auditors will say, Where's the liability? How do I -- how do I just let you report something on a -- on a balance sheet as an obligation or a liability when you have no -- no decent information about when it might occur and how much it might cost? I don't let you do that for court judgments. I don't let you do that for anything. Why would I let you do that for this net salvage because you happened to have decided to put aside 10 percent?

While a -- a -- it's -- if you have a real obligation, and you have a timeline for it, and you have a budget, and you expected to do it, or you have an agreement, or you're a pipeline that wants to remove your assets from Alaska, then, yes, report it. Report it as an asset retirement obligation and tie it to the actual obligation and the agreement you can point to. And you might even have to set it up as a trust fund in some of those situations. And you call it an asset retirement obligation or a trust asset, and you -- you go forward on that basis.

But this -- this sort of, Oh, no, I'm going to put aside some money because someday I -- I might have to remove a pole and I'd sure like to have a place to charge it that isn't called capital and isn't called operating, that -- that doesn't typically easily pass the muster unless you've got a regulator saying, No, I'm going to call that a regulatory asset or liability. And we know that IFRS isn't too keen on those, to date.

Rate making would have a similar conclusion, often, about net salvage. Mr. Kennedy may argue a different side of it, but the -- the trend in -- in recent years, and -- and certainly the practice of most of the utilities that we've reviewed or worked with, rate making would also say, Don't set aside these net salvage amounts in events like that.

It also has the concern about speculative. But it all -- but as -- as I referenced a KPMG report in Newfoundland, it also has a concern about not recognizing future value and that, as Mr.

Warden pointed out about Bipole 1, if you ever had to take down Bipole 1, you have a substantial value as a leg up on building the next one. I won't call it Bipole 4, because it's a --

MR. RAYMOND LAFOND: Mr. Bowman, can we go back just about in the last two (2) minutes? I am not sure if what you are proposing is to remove net salvage value or leave it in there.

MR. PATRICK BOWMAN: I'm saying that for rate-making purposes, similar to IFRS purposes or any other accounting standard purposes, the requirement to record net salvage in rates is -- is -- it doesn't -- is not appropriate and it need not be included in rates here.

MR. RAYMOND LAFOND: So you're proposing that they should not be included?

MR. PATRICK BOWMAN: I'm saying that -- that in Manitoba and Manitoba Hydro's framework, you need not be setting aside net salvage, whether it's driven by accounting standards or not.

MR. RAYMOND LAFOND: And is that not what Manitoba Hydro is proposing, not to include net salvage value?

MR. PATRICK BOWMAN: Right. And that's what we put in our -- in our pre-filed testimony, that on that point, we agree with them. The point we disagree with them on is that they're only proposing that when an accounting standard makes them. I'm saying from a rate-making perspective --

MR. RAYMOND LAFOND: I'm sorry, proposing that when, what?

MR. PATRICK BOWMAN: Hydro -- Hydro is only proposing to remove net salvage when an accounting standard makes them do it. And I'm saying that removing net salvage need not be linked to an accounting standard. It is an entirely appropriate practice even under any rate making.

Whether regulatory liabilities and assets are accepted, whether rate-regulated accounting is under the IFRS, whether Hydro finds a way not to go to IFRS, totally separate question. But under any of those, removing net salvage is not -- not a -- would -- would be supported by -- by rate-making theory.

MR. RAYMOND LAFOND: So what you're telling the panel is that this should be removed immediately rather than removed in -- at the same time that they implement other measures, including IFRS measures?

MR. PATRICK BOWMAN: That's part of our recommendations. On the other matter of overheads, the rationales that drive IFRS and financial reporting are different than the rationales that drive rate making, and they lead to different conclusions.

In the accounting standards -- and -- and you'll see the same type of -- of consideration, that they're concerned about making sure these are truly incremental; that -- that they're -- you don't leave a lot of room for discretionary; that you need to see very strong linkages to a capital, or else you can't capitalize something; that they don't want to see policies that vary among companies or looking to help companies -- or help make sure that companies can't use overheads or something of that nature, fully cost account to hide costs; or to fail to reflect things that are -- that are not incremental over the short term in their books.

If you can avoid it, don't put it in overheads, would be the -- the principle. And it's in -- it's in Hydro's submission, in terms of why the IFRS goes that direction. And it's a -- it's a valid rationale if your purpose is to achieve an accounting standard that has the purposes that IFRS has.

It's a different conclusion when you're sitting here, trying to make rates. And the reason is because rate making in general rejects pure incremental costing. It is very comfortable with the concept of full-cost accounting. It's very comfortable with using estimates, if needed, in order to assign cost to different customer classes in different periods.

And it is -- it's part of the -- the discretion and the art of -- of working through setting rates, whether that's across classes or across periods. So for that -- for that rationale, we would say when you come to something like overheads CGAAP allows you to use full-cost accounting. Rate making would say that's the appropriate way to go, is to use full-cost accounting. And those things should be capitalized.

If IFRS doesn't let you, then you've got a variance, and this Board is going to have to decide whether that's something you can live with, in terms of the impacts of not being able to do that. But there is nothing to suggest that proper rate making wouldn't allow, permit, demand, using a fully loaded cost in order to fairly reflect a thousand (1,000) employees that Hydro has added in the last six (6) or eight (8) years, most of which are to work on capital.

MR. RAYMOND LAFOND: Okay. But I -- I hear you. However, to my understanding, CGAAP is moving towards IFRS. I mean, that's a Canadian direction which is different than in the US. And --

and therefore, am I hearing that -- I mean, and -- and I think all Canadian companies have to follow IFRS, whether you're a hospital, whether you're a school. And -- and I would vouch that all your -- your members are moving to IFRS.

Now, that being said, are you there -- therefore then saying that MIPUG would -- would propose to the government that it change its legislation so that -- so that we move away from -- so that Manitoba Hydro moves away from IFRS?

MR. PATRICK BOWMAN: Well, Mr. Lafond, I think when people have bothered to put their mind around this issue with a fair set of facts before them, there's a number of times where people, including governments, have concluded exactly that. This Board has the recommendation power. MIPUG can make recommendations. We don't have power to do it. And -- and I think that's a possible outcome.

But -- but I go back a step and say, Not putting the cart before the horse means this Board has its job under the Act to deal with rates and to make sure that they fairly reflect fairness and fair rate-making principles. If those are the same as Hydro's accounting standard in its IFRS, then so be it. Then we're at the world of one (1) set of books, which is an anomaly, almost an exception, in regulatory circles. But we're in the world of one (1) set of books.

If it's not fairly reflected -- if -- if you can't achieve fair rates with Hydro's accounting standards, this Board -- my submission, the Board can't throw up its hands and say, Oh well, I guess we have to live with what London decided. It's not -- it's not practical and it's not fair to --

MR. RAYMOND LAFOND: My -- my -- I think saying that Lon -- what London decided is not proper. It is what Canadians are deciding. It is what the Canadian Institute of Chartered Accountants are deciding. It is what governments, through regulation, are wanting.

Even in the US though, they're delaying because of the -- of the recession because they want to avoid the fiasco, the financial fiasco, that has just occurred in North America -- or in the US, more particularly.

MR. PATRICK BOWMAN: I guess, Mr. Lafond, I'd go back to two (2) points, and it's -- it's certainly not my intention to -- to debate the wisdom of accounting standards. It's my submission that accounting standards are one (1) aspect of what Hydro has to deal with.

But the prime aspect this Board has to deal with is fairness. And you look to people who work in the utility sector -- whether that's the utilities themselves, the organizations who represent them, the governments who own them in cases -- almost all of them are on record, including the regulators -- CAMPUT -- on record, saying, If we just accept IFRS holus-bolus, we will get distortions. We will not get fair outcomes.

Those record -- those -- most of those are on the record. Some are available publicly. And I am -- cannot reference a single jurisdiction that is regulated by a Board such as this that has said, IFRS statements are perfectly acceptable for regulation and I won't, either, take a statement that is not IFRS because the utility has gone a different direction, or expect you to prepare statements in -- in my style.

I -- and I can go through a long list that have gone the other way and have said, No, regulatory statements need to meet these tests. If that's what your accounting does, then -- then we're all good. But if it doesn't, then -- then we need some reconciling items.

And -- and I'm -- I'm perfectly in favour of and have helped utilities work through limiting the number of those reconciling items. We've

-- we've just done it in a hearing in Northwest Territories.

And it's not to dismiss the value of audited statements. Audited statements are -- are of fantastic value to -- to a Board like this, even audited statements that are audited on a different standard than the Board is working on. It's because you can work through a list of -- of reconciling items.

But if your motivations are different, if your motivations are -- are fairness versus discretion, are -- are fully allocating costs to different time periods and different customer classes rather than purely reflecting incremental costs so that an -- an investor or a lender can see -- can see the -- a different financial picture of the utility, then you -- you can't end anywhere but, We need to have two (2) different ways of portraying the --

MR. RAYMOND LAFOND: Okay. So your recommendation is that you agree that Hydro moves to IFRS standards for auditing purposes but that Hydro also produce some reconciling statements with issues such as depreciation and a few others?

MR. PATRICK BOWMAN: Yeah. Mr. Lafond, my recommendations would go the other direction. My recommendations would be this Board determine what it needs and Hydro determine how to deal with that, in terms of its standards.

But practically, if we want to go straight to the standards, I would say that there has not been fair information provided about the full impact of IFRS. There has been mistaken information, there has been some interpretations that I would like to go through, in terms of how people have defined the IFRS issues. And as a result, the line that says, "IFRS impacts on Hydro are minimal," is incorrect. The IFRS impacts on Hydro and its customers are actually quite large.

And I would -- you know, if it were up to my control, I would say an outcome like BC went through may be very practical for Manitoba, which says, Fine, adopt IFRS, but I'm going to give you two (2) or three (3) things that I say on these items we're going to use a different standard. And as long as it's clear and transparent, it doesn't seem that it causes huge issues for BC getting audited, for example; or Ontario, who has a Crown that's -- that's been using a different standard than -- than the BC has -- directs; in their case, a holding company using US GAAP.

It's really not my place to say, I found the accounting standard and it's -- it's -- it's US or it's IFRS with exceptions or it's -- it's any of these things. That's, effectively, a separate decision.

THE CHAIRPERSON: I do have a question though. The implication that by -- the Board's setting of rates based on IFRS standards were being unfair, could you explain that to me how -- how it is that the Board agreeing to set rates based on IFRS statements is unfair, given that this has become the standard for reporting in Canada?

I mean, when the accounting profession in Canada follows IFRS, are you suggesting that that is unfair?

MR. PATRICK BOWMAN: I don't believe IFRS or financial reporting is a -- is a forum that is -- spends a whole lot of time worrying about questions of fairness like would arise in this forum. They have different motivations. And I would say --

THE CHAIRPERSON: Well, let's -- let's address --

MR. PATRICK BOWMAN: Yeah.

THE CHAIRPERSON: Let's get down to the point that you're suggesting, is that by virtue of this Board asking for a different calculation of overheads, that would be fairer than using the calculations that Manitoba Hydro has used for its Rate Application?

MR. PATRICK BOWMAN: Yeah. I -- I am saying that, and I'm -- I'm saying that it's -- it's almost universal in the voices that were also commenting on problems with IFRS when people were reviewing it. And I'm saying it's the same standards that are being applied by other utility boards who have utilities who are regulated under different standards, US GAAP or IFRS or any of them. They're saying, We need to find a way to find a standard that meets a test of fairness. And their conclusion was, in -- in almost all of these cases, the -- the pure IFRS version does not meet all of the tests I require to meet the test of fairness.

THE CHAIRPERSON: Okay. So looking at overheads, this Board -- pardon me, this panel -- pardon me, the previous panel suggested to Manitoba Hydro that it needed to re-examine its overhead policy, which Manitoba Hydro's -- Manitoba Hydro has now done.

Now, you're now suggesting that that was an unfair decision?

MR. PATRICK BOWMAN: I'll have three (3) comments on that. One (1) is -- and -- and I have been through the -- the order in some detail and was involved in the proceeding. One (1) comment is, the review was done at a time when I do not believe there was a full appreciation of the magnitude of impacts of -- of IFRS, for sure. And -- and matter of fact, the review even -- even says that in the Board order. And it says, A decision will be made in the future, once we know more as to whether we're going to use two (2) sets of books. It did -- said it wasn't time to do that at that point. So tha -- that's one (1) comment.

The second one is that the Board is quite clear in that decision -- and I -- I have it here if you'd like me to pull it out -- that one (1) of the impacts of an aggressive overhead capitalization policy that Hydro was using is that it gives a lot of room to hide cost increases, that that line that we just saw that was scaling up at 5 percent --

MR. RAYMOND LAFOND: I'm sorry, the aggressive method that was used by Manitoba Hydro or that Manitoba Hydro is proposing? Like in other words, ASL versus ELG?

MR. PATRICK BOWMAN: This isn't depreciation. This is overheads alone. And -- and in the '08 decision the Board used the word "aggressive" in terms of Hydro's overhead capitalization policies. And one (1) of the rationales it used for saying they're concerned about the aggressive policies is because it means that top line can grow and it's -- it can be masked by having aggressive capitalization policies. And I share their concern on that point, that you need to be able to see that top line quite clearly.

The other thing that the Board said was, My goodness, if we're headed inevitably to IFRS and we haven't yet concluded we're going to go to two (2) sets of books, maybe we should get on and try to implement some of this stuff.

And -- and they even recommend Hydro file some IFRS reports and fi -- file some transition documents, which -- which Hydro did, and -- and in a year when people were talking about, you know, impacts of 20 or $30 million a year. And -- and it -- the Board said, Maybe we should get on, because this is where we're inevitably headed un -- unless we ultimately conclude we're going to do two (2) sets of books. So that -- that, I think, is -- is fair.

I think the one (1) point, and it's part of the reason that Mr. Hacault asked me to go through it, is I don't believe the Board had a whole lot of evidence before them in that hearing about this concern of intergenerational equity related to really large, capital intensive projects like -- like Wuskwatim and the like; that the Board was saying, We're concerned that you're capitalizing these costs to Wuskwatim, and as a result, we're going to overburden people in year 30 or 40 or 50 with this asset that has these costs built into it that were incurred today.

And what I'm suggesting to you is that I don't believe the -- the evidence leads to a conclusion that we are overburdening people thirty (30) and forty (40) and fifty (50) years from now with costs which are, on a fair, full-cost accounting basis, driven by capital by sticking them with an asset that is -- is disadvantaging them forty (40) and fifty (50) years from now, just like I don't think full-cost accounting on Kettle stuck to us with an -- stuck us with an asset that -- that was -- was inappropriately loaded or -- or ought not have been so loaded with -- with accounting costs.

I think, if anything, the thing you've got to be very careful about is that the costs that people have to bear for Conawapas or for Wuskwatims aren't showing up now when we're also bearing a project that's not even paying for itself. That -- that's the period in which -- which fairness can lead to a real concern about not overburdening people.

I don't think we would be disadvantaged by Kettle being at one point eight (1.8) cents versus one point seven (1.7) cents today, in terms of its overall loaded output. And -- and if I go through whether that's on overheads or whether that's on ELG, the same principles arise.

But there is -- there is a significant and acute and -- and dominant feature of new projects like Wuskwatim or Conawapa in our system today, where they will become small and beneficial and -- and valuable projects like -- in the future like Kettle is today. And in that -- under that profile, I think that the caution needs to be not by saying, Oh, it'd be unfair to the future to capitalize these. It would it, in fact, be saying it's actually unfair to today to capitalize them. It's the future who can -- who can just -- handle them just fine.

MR. RAYMOND LAFOND: I -- I appreciate the -- the principle, in theory. I have to say that outside of the utility sector, I've been the financial controller of some corporations like Standard Aero, and I've been on boards of different corporate...

No one, absolutely no one, capitalized any overhead. No such thing as a penny from the CEO's salary or the controller, or whomever it would be, capitalized. What was capitalized were essentially the direct costs: engineering costs, architectural costs and, of course, the -- the cost of construction.

So -- so I hear you in theory. But this is really not applied in practice in other sectors. And I think what accounting standards are really concerned about is -- is exactly about over-capitalizing. And it can be very easy to capitalize expenses which should probably not be capitalized and -- and which it is very difficult to find any type of discounted value on them.

So what I'm hearing, or have been hearing, is that Manitoba Hydro is still capitalizing a lot of its cost, but less than it was. It's less aggressive, in -- in other words, than it was. So you're saying that we should go back to where -- to how it was and be much more aggressive and, for instance, if -- if in the summer close to, I don't know, a third (1/3) or more of the employees are working on construction, that we should capitalize a third (1/3) of the overheads, IT expenses and CEOs and -- and controllers, et cetera.

MR. PATRICK BOWMAN: Well, Mr. -- Mr. Lafond, I completely agree with your statements. I -- I have worked for non-regulated businesses, as well. And I completely agree with you that if you're working in that environment, you -- you would be driven by the exact type of considerations you've -- you've just laid out. And -- and it's perfectly reasonable and it's perfectly part of -- of accounting in that environment.

But it's one of the reasons why I emphasize that when you review Manitoba Hydro and you review them in a rate-setting environment, you have some different considerations than you do when you review a competitive company or a non-regulated company, or perhaps a company that's not quite as capital intensive. Now, some of those companies are quite capital intensive like, say, airlines or something, but -- but there are a lot of businesses where capital intensiveness doesn't matter that much.

But those who -- where it really does matter, particularly the utility sector, have different considerations that go into it. And one of the things that Standard Aero probably did not have to fuss itself with was ensuring it recorded its costs in an appropriate manner to ensure that its prices to its customers were fair because, its prices to its customers would have been based on market -- what the market would bear, what the competitive features were, and all of that. Its costs would have been its own problem and its profits would have been the difference.

MR. RAYMOND LAFOND: I -- I understand

all that. Now, the issue is, if -- if I'm trying to understand, a few minutes ago you said in theory, in principle we should be accounting for net salvage value. However, because accounting standards are changing, et cetera, we should take it out immediately, but on the other hand we should be more aggressive on the overhead.

To me, there's a contradiction there.

MR. PATRICK BOWMAN: Let -- let me clarify. What I was saying was if you're under an accounting standards heading, you -- you account for liabilities, including removal costs liabilities, when they're real, when they're a legal obligation or a construction obligation, when they're forecast, when they're estimable. Then you account for them. And you discount -- discount their value, and you put them on your -- on your books, because you -- you better put them on your books. They're a real liability.

Outside of that, you don't start putting aside 10 percent just because 10 percent seems like a good number. That's the accounting side, and that's why account -- the accounting side doesn't -- doesn't deal with net salvage well.

And I'm telling you, I've been in these discussions with -- with some of the auditors who --

who weren't too keen on the concepts of net salvages, because they -- you can't point to the liability. All you can point to is, This is how much I happen to have set aside to date that I haven't spent yet.

MR. RAYMOND LAFOND: But do you agree with that?

MR. PATRICK BOWMAN: No. I'm saying that -- that the -- the accounting side would say, Don't record this as a liability unless it's real. When I go to a rate-making side, I put on my economist hat, in fairness. And in that environment, I'm saying, You don't need to be as concerned about net salvage -- that the same outcome arises.

You don't need to be concerned about net salvage on these assets because you -- they do have a future enduring value. And so I'm not that concerned that we -- we have to collect from ratepayers today the cost of taking down Bipole 1 because those folks who are going to use it as whatever it is at the time -- Bipole 6, I don't know -- are -- are -- it would be unfair to charge them for the cost of taking down Bipole 1.

Well, the fact of the matter -- and like I said, I'm not the only one who's echoing this -- is the people who go to deal with Bipole 6 will be very appreciative and see value in the fact that we had a Bipole 1 that we left for them. Even if they had to take it down to clear the site, they've got a significant leg up on the next tier of -- of the asset.

MR. RAYMOND LAFOND: But -- but that is assuming that in so many years, that we still need that, that there's not a new technology that renders this obsolete.

MR. PATRICK BOWMAN: Well, yes, absolutely.

MR. RAYMOND LAFOND: But -- but again, I mean, there's the principle and then the application.

(BRIEF PAUSE)

MR. PATRICK BOWMAN: There is a principle and an application, and -- and I'm -- I'm more than happy to speak of both. And I believe they lead to the same outcome. The principle, from a rate-making side, would be that you charge customers for the value they're receiving and the -- the assets they're using and the value they're receiving from those assets in the period where that value arises. And that one (1) leads to the outcome I was talking about.

There's also a practice -- practical

side, which says when you have an asset like a Bipole 1 and you go to replace it with something, when you go to re-string it, you're going to have a heck of a time separating the cost to begin with of what cost was taking out the old fi -- wire versus putting the new one in. It's going to be very discretionary.

And it's going to be -- the -- the cost of removal will be very small compared to the cost of replacement. And, in fact, they will -- they will reflect more, as -- as an economic value, an advantage to the next generation of customers from having had it. And so it's not that we're burdening them by having to have those costs carried in that generation.

So two (2) different sets of logic between IFRS and rate making. In this case, they lead to the same conclusion, which is you don't need to reflect net salvage except when you have something like a very real ARO.

I think there are other examples, like insurance recoveries, that we could talk about, or overheads, where we have two (2) different sets of logic and they lead to different outcomes because we're applying different tests and different motivations.

MR. RAYMOND LAFOND: Okay. Let -- let me get back to the fairness issue. And -- which was brought about five (5) minutes ago or so. And -- and one (1) of the issues is this whole depreciation issue. For instance, ASL versus ELG, forgetting the net salvage value for the time being.

If I heard correctly from Mr. Kennedy, the ELG is -- corresponds more closely to reality. So therefore, based on fairness, this would be the method to use for customers to be charged -- to carry -- for the customers to carry the cost of the actual depreciation, rather than an even amount over, for instance, in some cases fifty (50) years, some other cases, a hundred and forty (140) years, correct?

MR. PATRICK BOWMAN: That was Mr. Kennedy's evidence.

MR. RAYMOND LAFOND: Based -- from what my -- what I understood, was based on -- on research, et cetera, and that -- and if I recall correctly, ASL is acceptable for audit purposes, pending breaking down in many components, et cetera, but that the fairer one (1), or -- or the most -- the most proper one (1) to really match actual depreciation and -- and also allow for the recording of -- of gains and losses on retirement or disposal was a better method.

So based on the issue of fairness, this is one (1) that should be used, am I correct?

MR. PATRICK BOWMAN: Mr. Lafond, you're -- there is a question of economics tied into what you just asked, which was of fairness. The question that was assessed in the 1930s by Iowa was not a question of rate making. It was a question of -- of technically representing the retirement of large groups of property and -- and an assessment by a -- a group of people about how property retires. So I just want to make -- make that distinction at the outset.

The question of ELG verus ASL, and -- and I'll --

MR. RAYMOND LAFOND: I -- I understand how it works. I don't need an explana -- I just want to discuss the principle of fairness in regards to these two (2) methods.

MR. PATRICK BOWMAN: Right. So -- so let me go through that. The ELG method is put forward as a method that, when you have large groups of property, tracks -- is -- is intended to track, so long as your Iowa curve is accurate, is intended to track the retirement of those groups of property where those properties would be retired and removed and from capitalization and the next generation would be put into service, okay?

Now, there's a couple of key things in

that -- in that statement that I want to relay, because they're very important to the utilities that I've worked with, and I think they're very important here. One (1) is that your Iowa curve needs to be accurate or else the ELG method is not more accurate. The second one (1) --

MR. RAYMOND LAFOND: Well, this is like -- this is just like life expectancy. It has to be accurate, otherwise it doesn't -- but this is something that has to be reassessed over the years to make sure that it does represent the actual scenarios as time advances?

MR. PATRICK BOWMAN: Right. The difference with the ELG is that you are immensely sensitive, not just to something like a life estimate, you are immensely sensitive to the -- that shape of that curve. And if that shape of that curve is wrong, it doesn't necessarily lead to a more accurate result, okay? That -- that's -- but that's a -- almost a tautology. Like, that's a given. If your assumptions are wrong, your outcome's wrong.

But -- but with an ELG versus an ASL, an ELG you're putting more eggs in the basket of my assumptions must have been -- must be accurate, okay? Because you're relying on that curve for so many more calculations, okay? So that -- that's the first thing. But that's a -- that -- that was in the Fortis auditor's comments and all of that. I'm -- you know, I'm not going anywhere particularly new on that.

The second is that the ELG method is -- is premised on the fact that you're going to have some -- like you say, some assets last less long and some assets last longer, and that when you finish the life of one (1), you're going to retire it and you're going to recapitalize the -- the replacement. But that means you have to have capitalization policies that also match that, and Manitoba Hydro doesn't.

One (1) of the comments we heard from Manitoba Hydro was about something like replacing poles, okay? And Mr. Warden said, If we have a pole that -- I can find the quote if you like, but if we have a pole --

MR. RAYMOND LAFOND: That's okay, I remember that's --

MR. PATRICK BOWMAN: -- that -- that is -- is retired, due -- not due to the end of -- not due to life expiry but due to something else, we put it through O&M. Well, Mr. Kennedy's curves --

MR. RAYMOND LAFOND: Oh yes. But that was in regards, for instance, a car hitting a pole.

MR. PATRICK BOWMAN: Absolutely.

MR. RAYMOND LAFOND: That was the example he gave.

MR. PATRICK BOWMAN: Absolutely. A car --

MR. RAYMOND LAFOND: But that has nothing to do with the life expectancy of -- of a pole; it's just because some external factor. Whether -- I mean, it's like a building may have a life expectancy of seventy-five (75) years, but if there's a fire after -- after ten (10) years, it doesn't mean the formula's incorrect.

MR. PATRICK BOWMAN: Mr. Lafond, I'd -- I'd encourage you to review Mr. Kennedy's presentation to the accounting community. He has an exact picture of a car hitting a pole as a reason for a retirement. And he counts on that as part of the curve that would show that some poles only last a year, because they get hit by cars.

That's part of the basic theory of the ELG, is I need to amortize that pole off in one (1) year, because at the end of that year, it's going to be hit by a car, and we'll recapitalize another pole. Hydro doesn't recapitalize another pole; it puts it through O&M. So if that actually happens under Mr.

Kennedy's theory, you actually have no asset for that pole, because one (1) side was put in O&M, the other one was fully retired. So that's --

MR. RAYMOND LAFOND: So the only thing is, though, is I think we have to be careful here. This was -- this is and was the policy followed by Manitoba Hydro under ASL, which they are still using and will be using for another few years. I'm not sure that, if that is the case in the formula, that their policy will not change accordingly on adapting -- on adopting ELG. That is a question. I appreciate that.

MR. PATRICK BOWMAN: I'm sorry. It's a fair enough comment, but it's actually one (1) of the very things we ask them is, What are your plan changes -- your capitalization policy? And we were told there are basically none. So that -- for that exact reason. I -- I -- you and I are on the same page.

The third thing that is critical is that the ELG is based on -- and again, this is very prevalent through the literature -- is based on large numbers of -- of plant. And so an ELG over something like distribution poles will -- you know, as long as your Iowa curve is correct and your capitalization policies are aligned with it, it -- it will pick up the fact that some poles will last shorter and some will last longer. But it relies on the statistics that come with large groups.

On something like the one (1) that you raised of Wuskwatim spillway, or something of that nature, you don't have large groups. You have your own rate for Wuskwatim's turbines and generate -- Wuskwatim has three (3) turbines. We don't have eighty-six (86) classes of assets to retire; we have three (3). And so the ELG can run into issues properly representing that type of small category, too, okay?

But I -- I think it's probably more fruitful for me to move where you were commenting, which is not just is -- is ELG more accurate, your question was, Is it more fair? And -- and these are all comm -- comments that -- that are often raised as to why ELG is more accurate in theory but it may not be more accurate in practice.

The question about more fair is a different one, and -- and it's one that I raise in regard to -- I don't know if you'll recall, but I -- I think you may, because it was -- it seemed to be a pretty important moment when Mr. Kennedy went through his example of a ten (10) year asset, one (1) of which lasted five (5) years and one (1) of last -- which lasted fifteen (15). And he said, If you put those in the same category together you're going to get a lower rate with ASL because you're averaging, and you get a higher rate will ELG. And if you -- only you componentize, the more you would get the same outcome, the same rate.

And I -- I would make two (2) comments on that. The first one is that the comment that if only you componentize them more you would theoretically get the same outcome with ELG is a theoretical concept that cannot be applied in practice. And the reason it can't be applied in practice is because you rely on being able to determine at the outset which asset's going to last how long. You don't have that knowledge at the outset. You know a statistical likelihood, but you don't know which is going to last how long.

So I was taking the example -- I was trying to walk Mr. Hacault through this, and he -- he hoped I would do the same here, that if you take something that's infinitely componentized, let's take poles, let -- and -- and we can take the extreme example of 65 foot Western cedar poles, if you like, installed in clay, I think was the one that I was using with him, and you put those in a group together, you have a thousand or ten thousand (10,000) of them, there's no issue with componentization. We've now got it down to the finest level of component possible. And ELG is still going to say one (1) of those poles only lasts a year, and it's still going to try to amortize that one (1) pole over one (1) year. And it's going to say another pole only lasts two (2) years, and it's going to amortize those at 50 percent, and it's going to amortize the others. And ASL is still going to say, What's our average life, and we ran it over a straight line.

So this -- this theory that if only we're componentized enough we'll get the same outcome with ASL, only happens if you actually create an ASL category for poles that'll last a year, and then another category for ASL that are poles that'll last two (2) years, and another one for poles that'll three (3) years. And, of course, it's -- it's not possible; you can't do that.

So it's -- it's one of those, you know, university textbook type of concepts that -- that could never be applied in practice and -- and isn't even sort of set out in practice. So that -- that's one (1) of my comments.

But -- but even to go directly to your fairness question, I get concerned about oversimplification examples. And -- and Mr. Kennedy's is a classic one that's used often, of the asset that last five (5) years and the asset that last fifteen (15) years, and if you knew in advance that one (1) would last five (5) and one (1) would last fifteen (15), you'd use this particular ELG rate.

But you don't know that one (1) will last five (5) and one (1) will last fifteen (15). You know there's a dispersion curve of what they may last, but you don't know that.

But our fairness question, let's say that we take that fifteen (15) period and we're trying to have two (2) assets in service. Take the example of a family that has two (2) fridges and they're going to, on average, last ten (10) years. So over that fifteen (15) year period it's going to go through three (3) fridges, you know, thirty (30) service year lives. It's going to go through three (3) fridges. And we don't know how long each one's going to last. We know that it will be some distribution around ten (10) years. But we know that the family is getting a service out of two (2) fridges at any given point in time. They can't choose which fridge serves them. They don't -- they don't get a different higher quality of service out of one (1) fridge than another; they have two (2) fridges over fifteen (15) years.

The question is how do you fairly recover that cost of two (2) fridges over that fifteen (15) years. And if those fridges reach a thousand dollars you have a three thousand dollar ($3,000) expense to recover over fifteen (15) years from a family that's only going to have one (1) level of service quality over that entire period.

I don't know how you can go through that example and say, Well, in the first year I have to charge more, I have to charge two hundred and thirty-three (233) or two hundred and sixty-six (266), because somehow they're receiving this superior service quality. They're -- they're not. They're receiving a cooling service out of a fridge.

And that's -- that's where, fundamentally, you can get the most accurate result possible and not even have a -- even if we were at the point of not having a debate about the most accurate result possible, it doesn't necessarily mean it's the fairest result, because you're trying, at the end of the day, to reflect an economic conservative value.

THE CHAIRPERSON: Okay. I'm looking at the clock; it's three o'clock. I suggest that we take a ten (10) minute break and resume our proceedings after the -- after the recess.

MR. BYRON WILLIAMS: Mr. -- Mr. Chair, I -- I'm going to just suggest, at the break, among counsel, we have a little caucus about timing. I've got a commitment somewhere else at 4:00. I've -- I've let them know I -- I expect to be late. And -- and I'll -- certainly will be respectful of -- of this process, but I'm -- I'm just a little worried about the scheduling.

--- Upon recessing at 3:00 p.m.
--- Upon resuming at 3:14 p.m.

THE CHAIRPERSON: I believe we're ready to resume proceedings, Mr. Williams.

MR. BYRON WILLIAMS: Just two (2) very quick things. One (1) is there are some undertakings outstanding from Mr. Dunsky. I've made some inquiries. I'll -- I'll report back to the Board as soon as I -- as soon as they're available. At two o'clock today they weren't yet available. So we're checking into that in terms of his undertakings.

And secondly, cognizant of what appears to be the schedule for -- for today, I'm going to, with the Board's permission, excuse myself at five (5) to 4:00. I don't -- I don't believe it will delay the --

the proceedings. And I'll review the transcript with regard to the -- the piece of the hearing I miss.

THE CHAIRPERSON: Thank you, Mr. Williams. M. Hacault, before you start, I want to make sure, are we using a specific document at this time? Do I need to ensure that the Board members have a document before them before you start, or...?

MR. ANTOINE HACAULT: Not for my next question, no.

THE CHAIRPERSON: Okay.

MR. ANTOINE HACAULT: Just, members of the Board, a lot of your questions dealt with parts of the presentation we were going to make, so there's some items I'm trying to cross off that have been dealt with through your questions.

CONTINUED BY MR. ANTOINE HACAULT:

MR. ANTOINE HACAULT: The one (1) thing on the -- the fairness issue and whether or not ASL and ELG lead to the same result if there's enough componentization, I would ask Mr. Bowman, who was involved in the Newfoundland exercise -- and that, the Board may recall, that's where it was explained that it was breakdown to the unit -- to provide some information to this Board as to what the results of the studies were and -- and how -- whether those statements, in fact, were true -- or correct, sorry. I shouldn't say 'true'. Correct.

So, Mr. Bowman, could you go through the depreciation exercise that Mr. Kennedy went through at a high level in Newfoundland, and explain to this Board the context of that and the results between the ELG and ASL in each of the reviews, because there's was more than one (1).

MR. PATRICK BOWMAN: I can try. As I noted, I'm -- I'm not going to be able to comment on the detailed work Mr. Kennedy did. I -- I don't practise in that area and -- and it -- it wasn't actually something I was retained to review the -- the detail of the study. What I was asked to review was the implications of the study.

And in the case of Newfoundland, much like the case of Hydro Quebec, for what I consider to be a very good reason, but accountants don't like so much, they had, for many years, applied a sinking fund method of depreciation in the past. The sinking fund method, just in ten (10) words or less, is basically the way you pay your mortgage. It's like your principal and interest payments are -- are blended and levelized over the -- the time of the investment, as opposed to just having a straight line depreciation and interest on top of that.

And there's a good reason they used that. That's a method that economists are very much in favour of when you're dealing with very large, long lived assets, and people of the day would have used -- would have gone to that route. The accounting standards have changed, so they've adopted going to a -- to a straight line method. And in Newfoundland's case they went back to the regulator to get approval to change the method.

At -- it was debated over a number of years. They debated both the ASL and the ELG. They had studies done by Mr. Kennedy at various times over that period under each of the ASL and ELG methods.

Newfoundland, as Mr. Kennedy noted, is -- is more componentized in many of its areas than Manitoba Hydro, although, I think if you -- we -- we did provide in the -- by book of documents, the list of components. And I think you'll notice a -- a large number of them are fairly token components, but nonetheless there -- there is a longer list. They don't do it by plant, which is one (1) of the big advantages Manitoba Hydro has. But, nonetheless, they were an example Mr. Kennedy used of a -- of a componentized -- heavily componentized utility.

When it came time to make the change they were going one (1) of two (2) routes; either from sinking fund to ELG, or from sinking fund to ASL. And the decision was made by the company to use -- to go to an ASL approach rather than an ELG, even though it -- they had had ELG studies prepared, and had even filed those publically. And the reason was because the ASL was considerably less costly.

It was less costly for ratepayers, and -- and that transition was going to be expensive to begin with, because no matter where you go from sinking fund you're -- you're going up. They had also, as a side note, incorrectly applied the sinking fund for many years so the were really in the hole on their depreciation amounts, and Mr. Kennedy had noted that. But even had the applied it correctly they would have been going up.

And so they made the decision to go to ASL in order to mitigate rate impacts, and -- and that's what the Utility Board ultimately accepted. I -- I only raise this because I -- I think of it as an example that would go again to the point of -- of showing that, in practice, the argument that once you componentized enough the two (2) methods lead to the same result; that didn't arise in that case, that even though they are componentized to the level that Mr. Kennedy was noting and had both options, they still found the -- the ASL method to be lower cost and -- and to better match their -- their assets.

And -- and I'm not surprised. Like I had said earlier, regardless of how componentized or regardless of how they treat grains and losses, I am not aware of a -- of a utility of the type we talked about, Crown owned, hydro based, capital intensive, who has ever used the ELG -- or uses the ELG method today. I know one who did and it was Yukon Energy, and they changed to ASL once they -- once they learned what method they -- they had been using.

MR. ANTOINE HACAULT: And in that context, can you comment on the fairness of choosing ASL when matching intergenerational issue, and the used and useful issues?

MR. PATRICK BOWMAN: Well, taking fairness as an -- again as an economic concept, which is where my background comes from, I give the example of the household with two (2) fridges. That would lead to -- if the ASL method and the application there would lead to a fairer outcome than the use of the ELG method. It would -- it would still not be an optimal economic outcome as I noted, because it is ignoring the implications of inflation and the implications of the cost of the capital tied up. But, once you bring those in you -- you end up at a sinking fund method, and that's not seriously under -- under debate here so.

So it's -- as far as straight-line methods go that's the reason why, from a rate making perspective, when you're dealing with capital intensive assets, my conclusion, and the conclusion of pretty much every utility and utility regulator I'm aware of, has been that -- that ASL is a -- is a preferable method.

MR. ANTOINE HACAULT: Now, could you address, with respect to IFRS, the preliminary assessment of MIPUG that the switch to ELG would have over the IFF12?

MR. PATRICK BOWMAN: Well, yes. We -- as I noted, we -- we separate out considerations of salvage versus ELG/ASL, because they're -- they are different thinking processes. And we went to look at Mr. Kennedy's study and determine its impact on the IFF, and we determined that it was quite large.

The switch to ELG that Hydro is quoting is $37 million a year. When I looked through Mr. Kennedy's study I get a little bit lower number, but it's -- nonetheless it's -- it's not far enough off to take a bunch of issue with. And that's significant. It's 750 to $800 million over the course of the twenty (20) year IFF.

But the thing that I was really concerned is the --

MR. ANTOINE HACAULT: So sorry, how much?

MR. PATRICK BOWMAN: Seven (7) -- well it's thirty-seven (37) times twenty (20), never mind interest impacts. Thirty (30) -- so 750 million.

The thing that -- I was really concerned though was the new assets, and that's why we spent some time understanding what Mr. Kennedy's study said about -- about new assets like Wuskwatim, and ultimately looking to the Keeyask and the Conawapa and the Bipole rates. And that -- that concerned us more that it -- I -- I don't mean to dwell on things that we've gone over, but that -- that there is a significant understatement of the future costs of those plants under an ELG method in the event that they do go to ELG. And Wuskwatim we had estimated at -- at 4 million, and I think the latest numbers probably have it at about 3.6 million difference in the IFF.

And, you know, ballparking that impact,

because I -- we weren't able to get any capital breakdowns by components for Conawapa and Keeyask, which -- which is reasonable, that we weren't able to get it. But just ballparking it, the same way that Hydro would have in developing its rates, that would be about a ten (10) times as big an impact once you get to those plants. It's the -- they're a ten (10) times larger investment.

And that's one (1) side on the generation. Bipole has a different set of features going on where a rate that's being used is including a true-up. And you have to be very careful when you look at a true-up that's calculated in a study and how you apply it on future assets, because you take a true-up, a single number at a point in time, you divide it by an average remaining life to come up with a dollar value that you'd look to credit back in a given year. And then there will be another step that converts that into a percentage on the base of assets, and you apply that percentage to your assets in service. And that's part of the piece that Mr. Kennedy called 'Step 2' that carried back to his Schedule 1.

And that only works if you have -- are not materially growing your assets. So in the case of the Bipole, the one (1) example we went through, you're trying to credit back about a million dollars a year on the assets that are there. And I -- I don't have those numbers in front of me, but it was very close to a million dollars a year. And you say, Well, my depreciation is, say, 10 million, so I'll do that at a -- at a ten (10) per -- or 1 percent of the asset, 10 percent of the depreciation. So you're crediting back that million dollars a year. But if you double your asset value and you apply that same percentage, you are all of a sudden crediting your true-up back at twice the rate at, say, $2 million a year, even though there's no true-up associated with that asset you just added.

So what happens is it -- it sort of fallaciously makes it look like you're going to accelerate the refund of the true-up, which -- which you're not going to do. The next time you read the study, you're going to recalculate and -- and re-base. And that's built into the Bipole rates that have been estimated here, too.

So -- so that's another feature that's missing in the IFF about the full impact of ELG. Never mind that the Bipole rates are based on transmission categories that are -- tend to be twenty (20) to thirty (30) years old, and -- and, of course, Bipole 3 will be a large value coming in in the early years, so that -- that's -- that's missing in the IFF. And -- and that's before we talk about something like a Pointe du Bois rebuild or -- or the normal capital.

And -- and those may not -- may not be skewing, because all the other assets get older at the same time as you add new ones. Those may cycle themselves and not be a big impact.

But just focussing on the ones that we were able to quantify, we had about another $600 million impact from ELG over the course of the -- of the GRA -- or over the course of the IFF, compared to -- compared to the IF -- IFF12. And that's -- you know, I was using the numbers of 4 million from Wuskwatim times the full twenty (20) years, and about 5 million for Bipole times the fifteen (15) years it's in service. And then Keeyask and Conawapa, if their scale -- Wuskwatim's estimated at about 16 million a year for Keeyask times twelve (12) years, and about 28 million a year for Conawapa times seven (7) years. And you add those up, and you're about $550 million of -- of future 'shoe to drop' in the IFF that -- that hasn't been built in yet.

And so I -- I take issue with Mr. Kennedy's characterization of the ELG as a bit of an increase. And -- and I -- this goes directly to the reasons why I think it's important that the study itself not be held up as providing all the answers, because there is a significant step between reading a study, understanding what it says, figuring its implications for an organization, and building into its financials, which -- which is different than what utility personnel do every day of the week, and it's not automatically following out of the study when you retain someone like Mr. Kennedy.

MR. ANTOINE HACAULT: So if we just look at these additional items which did not form part of the study, do you have a rough estimate as to what the rate increases are just related to these unspecified calculations in Mr. Kennedy's study, and unspecified in the IFF?

MR. PATRICK BOWMAN: I was just to the terminal year, and you'll have heard that the way that the numbers like the 3.95 percent number in the IFF, the one (1) that goes out the next twenty (20) years, are designed by drawing a straight line.

And on the cost front alone, by the terminal year, we're -- we're talking, you know, somewhere in the order of 50 million -- 50 to 60 million more per year. And so that's about an -- about

4 percent higher rates by the end of the twenty (20) years. And plus, that's not counting any other compounding impacts to things that are -- that are otherwise built in.

So it could be that range. It's possible it's -- it's a bit lower because were you to charge those higher rates, the rest of the depreciation, of course, a non-cash impact, so you might actually have a lower debt. So it -- it's possible there's some offsetting impacts. But I was -- I was estimating on the basis of that, that rather than three point nine five (3.95), you'd probably find a number closer to four point one five (4.15) or four point two (4.2) as the -- as the long-term number. And I'm -- I'm not doing anything more -- more magical than taking 4 percent and divide it by -- by twenty (20) years or eighteen (18) years.

And -- and I guess I -- I would only stress out of that that when these things happen -- like Manitoba Hydro could make the comment that being regular in a cost of service basis means that they can handle the impacts on ratepayers by simply phasing things in. But once something shows up in an income statement or on an IFF, it will make its way through to ratepayers in -- in basically a 1:1 ratio or -- or over time. And it may not happen the first year, but it -- it's got to happen or else you're not going to end up in the same place in terms of overall reserves, so.

And -- and that's for no changes to underlying costs whatsoever. Everything we're debating here is just about the timing for recognition of these costs. And -- and I think that -- that starts off with a --

MR. RAYMOND LAFOND: Okay. Could you -- what -- are the -- the precise factors that would increase it from three point nine five (3.95) to four point one five (4.15) or four point two (4.2) over the next eighteen (18) years, or over -- not the next eighteen (18) years, but starting next year?

MR. PATRICK BOWMAN: Right. Well, I said Wuskwatim we had been estimating at 4 million a year that's not shown in the IFF, and -- and it may be a smidge lower than that. We estimated Keeyask is about four (4) Wuskwatims, so about sixteen (16). We estimated Conawapa's about seven (7) Wuskwatims, so roughly -- roughly 28 million. There you're up to -- getting pretty close to -- to fifty (50).

And a bipole is a little bit trickier to estimate. We come up with about 5 million due to the -- the factors we could get our heads around. So you're

-- you're somewhere on the order of -- of, you know, say 50 million a year, that -- that type of range, maybe -- maybe 55. And -- and that's, you know, roughly -- roughly 4 percent on rates, is right. We were talking 12 -- or $12 million per percent.

MR. RAYMOND LAFOND: So that -- so on these projects, due to the -- the movement to -- to moving to ELG versus ASL?

MR. PATRICK BOWMAN: Yes.

MR. RAYMOND LAFOND: That's the impact?

MR. PATRICK BOWMAN: That -- that's --

MR. RAYMOND LAFOND: Thank you.

MR. PATRICK BOWMAN: That's solely the -- yeah, that's solely the ELG impact.

CONTINUED BY MR. ANTOINE HACAULT:

MR. ANTOINE HACAULT: Now, the other thing --

THE CHAIRPERSON: I'm sorry, could you just clarify just -- ASL without salvage value?

MR. PATRICK BOWMAN: Well, yes. But even then it's not quite ASL without salvage, because we now know that IFF12 was run with numbers that are actually a little bit different than ASL without salvage. Like we have, for example, the numbers for

Wuskwatim as to what was in the IFF, and -- and they're shown as 18.8 or 18.9 million a year for depreciation.

And now, after we got the corrected version, we have the estimate of Wuskwatim as depreciation, ASL without salvage, and it comes out higher than eighteen point eight (18.8) or eighteen point nine (18.9).

You know, Hy -- Hydro said it ran the IFF on the basis of ASL without salvage. Apparently that was a misunderstanding, but nonetheless, it was run that way. And -- and the numbers actually show it wasn't even quite run that way; it was run a little bit lower than that.

So you've got the IFF number, you've got the -- the ASL no-salvage more detailed number, and then you have the ES -- EGL no salvage number. But -- but we're taking the gap in the -- in -- between what's in the IFF and -- and what's in the ELG and -- and how much -- how much off might the -- the IFF be.

And I have learned over the years that there's a lot more that goes into running an IFF than -- than just that -- than just one (1) to ones alone. But -- but there's no -- that's why I said there's no -- no doubt it will go in -- in an upward direction. There's no doubt that -- that there will be pressure compared to what's shown there on -- related to the new projects, and -- and that it will mean the three point nine five (3.95) comes out to a higher number.

I -- beyond that, I would -- I would think you'd want to see a better estimation of the componentization of things like Conawapa and Keeyask, which I'm assuming you get for an NFAAT to -- to really be able to get your heads around -- around the -- the impact of that depreciation.

CONTINUED BY MR. ANTOINE HACAULT:

MR. ANTOINE HACAULT: Now, in that discussion, could you comment on -- Hydro has shown some scenarios where the -- there's retirement of capital in some of its explanations. But can you comment on what the scenario is if you're adding, as we've seen in the CEF, the capital extend -- expenditure forecast, over $30 billion of capital assets that are all new assets when you use the ELG rate?

MR. PATRICK BOWMAN: Right. So the arguments that I've had to review a number of times for people, in respect of ELG versus ASL, is -- is that, yes, it may mean you recognize costs earlier, But you -- we seethe benefit of having less costs later. And ignoring a economic bias that says there is a time value of money, the recognition of some costs earlier versus more of the costs later, only is relevant when you decide you're applying on a declining plant bal -- basis, or -- or analyzing one (1) facility or one (1) dam, not a -- not a system.

So there's a very interesting example in -- in the -- the study. It's extremely instructive. And the Board asked some pre-asks which actually helped us understand it. And it's -- it's Kettle.

Kettle generating station is now forty (40) years old. It was built in '71. It's got a -- it's a very attractive plant. It's got a -- whatever, one point six (1.6) or so cent output.

And Kettle, being forty (40) years old, when you run the ELG and the ASL in a pure basis without getting into the true-ups, you end up with basically exactly the same depreciation expense. It's at that theoretical crossover point, okay? But then when you --

MR. ANTOINE HACAULT: So what's the year again? What's the crossover? How -- it's like it's a 1970 facility; how many years out do we have to go before we get a crossover?

MR. PATRICK BOWMAN: Well, this -- this

one is year 40. And it -- it would depend on the particular mix of assets, but Kettle is -- is just surprisingly aligned. So it gives you an idea about where this crossover occurs.

But the other thing it says about Kettle is: When you flip to the second schedule and you say, What is the surplus or deficit accmulat -- accumulated depreciation? How much ought be set aside against Kettle at this point in time? And that's where you get the different answer.

And the answer for the target accumulated depreciation for Kettle under ASL is 137 million, and under ELG it's 147 million. So you have a plant now that is producing power at a hundred and seven and a half (107 1/2). It's got a net book value of about 200 million. And you're going to pay -- be paying the same amount for depreciating it. But the question is: Ought the people who used Kettle in the past have paid effectively $10 million more for it over that period, and primarily in the first few years, because the -- the lines converge, than under one (1) method than the other?

And -- and that's where the early part of the presentation, the economic fairness piece went. We would someday see a Wuskwatim cross over and -- and people would either be seeing more set aside or less, if it stay -- if it -- if it's done on ELG versus ASL. And -- and the question is whether us here today ought have paid more for Wuskwatim in order to help it get depreciated quicker, or whether -- whether we're comfortable having future ratepayers have that -- that cost.

And -- and on something like Kettle, it's -- we're not -- I don't think we're lamenting that -- that the people in the '70s and '80s didn't pay themselves high -- didn't pay higher rates to set aside the extra $10 million so we could have a -- a little bit cheaper now -- power -- now out of Kettle, when we're getting it for a penny and half. And -- and if -- had they done that we'd be getting it for one point four-nine (1.49) or something. That's the fairness question.

THE CHAIRPERSON: The counter to that, of course, Mr. Bowman, is that repairs that will happen in the future from Kettle, stemming from the use of people who enjoyed the power in the early years, will be paid by future ratepayers. So, I mean, we heard from Mr. Kennedy that ASL will lea -- yield lower depreciation in future years, offset to some extent by repairs that will occur because of an aging facility.

So what do you say to that?

MR. PATRICK BOWMAN: Well, I -- I would have two (2) comments. One (1) is, yes, it is -- it is one (1) characteristic of a hydro plant's economics is that -- is those -- those costs. As I noted, it's -- it's a relatively small proportion of a hydro's plants cost. It's O&M.

And -- and in setting a depreciation method and -- and just like -- just like the standards will say, Don't -- you don't set depreciation based on the revenue you can generate; this would be a question, You don't set the depreciation based on -- on the O&M repair costs that you might -- might incur later; that that's a -- that's not necessarily a core consideration of the -- of the plant.

But I'd also say I think you will find that even those O&M costs are by far a minority of the costs that are related, and -- and would be a relatively small feature for -- for future ratepayers. And the other thing is that when they are substantial they will ultimately be capital costs, and those capital costs will be subject to the exact same profile we're talking about here.

And, you know, a good -- I guess a good example of that is something like Pointe du Bois. We have some historical documents that Hydro's produced that says when Pointe du Bois was built it was promised that they'd be able to build it for three (3) cents a kilowatt hour and it ended up being seven and a half (7 1/2) cents a kilowatt hour. But that was in in 19 -- 1911 dollars it was seven and a half (7 1/2) cents a kilowatt hour.

Its economic profile would have improved since then. I can't imagine how large a bill that would have been in -- in 1911 dollars. But -- but its cost would have depreciated. It -- the -- the cost profile would have improved up until more recently when the people have had to really do some -- some reinvestment in it.

And -- and as a result, when you now go look at it, Pointe du Bois is not one of the cheapest plants on the system, right. It's -- it's -- I think our last number we had was about four (4) cents.

But it's still not in -- at this point in time it's not an poor economic profile for a plant at, you know, four (4) cent power that it -- that it's producing all in, even though it's at that point where it's having that -- that very large -- that very large operating cost. And I -- and I can't imagine that it would have made sense to have rates higher than -- or costs higher than seven and a half (7 1/2) cents or three (3) cents, or whichever they came in at, in 1911 in order to have that number be -- be somewhat smaller.

Once it's rebuilt it's -- will -- we'll be back in the same situation as basically a new plant, that you'll start with ten (10) cent, or possibly north of ten (10) cent power for -- for Pointe du Bois, depending on -- on how you record the cost.

CONTINUED BY MR. ANTOINE HACAULT:

MR. ANTOINE HACAULT: Mr. Bowman, can you have a bit of a discussion on the componentization issue and whether or not -- and the gains and losses, and -- and whether that's really something this Board should be concern -- or concerned about.

MR. PATRICK BOWMAN: Yes. There are two (2) -- now that I seem to have wandered my way through seeming like somebody who was an ELG naysayer or taking it down a notch, let me just clarify that there are two (2) aspects of the ELG approach that make it attractive for those utilities who adopt it, and -- outside of technical precision which I'm not sure is a big motivator for -- for most of the people in -- in some of the management -- making a lot of management decisions.

You'll find ELG is very heavily used by private sector utilities. It's very heavily used by thermal utilities, such as I said in Alberta: Fortis, Nova Scotia Power. And for them, in terms of their generation, it -- it gives certain benefits, and -- and in terms of say distribution, it could still give Manitoba Hydro benefits in terms of distribution.

But why do they use ELG? One of the reasons is because fundamentally ELG doesn't change your cash outflows but it does change your cash inflows. If you're a utility looking to make that decision, your cash flows can be linked to how your depreciation -- of course, a non-cash expense. My depreciation's higher, it gets me higher rates, but one (1) is non-cash and one (1) is cash, it improves the cash flow. And -- and it's irrelevant to -- it won't -- it won't increase your net income, but it will improve your cash flow and, of course, you're not -- you're not taxed based on net income, but on the capital cost allowance.

So if you're -- if you're a private sector utility and you're given a choice, there would be real benefits to ELG in terms of pumping up the cash flow. And -- and that's why I think you'll find a lot of those people will -- will move to ELG and turn to

Mr. Kennedy to -- to provide that type of study to them.

The other one is -- is this issue of gains and losses. And if your utility, who's regulated on a very strict rate-base rate of return basis, where you come in here and you -- I'm not sure this -- I'm not sure a lot of people in Manitoba have run across this type of regulation because it doesn't really exist here -- but where you come in and you justify a case that my revenue requirement is exactly two hundred and forty-two million nine hundred and sixteen thousand dollars and fourteen cents ($242,916,000.14) and -- and you argue your case and you come up with your end product and you set your rates, you're basically at risk of everything else that happens after that, to the better or to the worse and your shareholders, frankly. You don't get to come back like Manitoba Hydro and say, Oh, we had worse last year, so we'd like our rates back up or our reserves are down. You know, there isn't -- there isn't that concept built in for -- for private sector utilities or a lot of the thermally generated utilities.

And so for them, they would view certain instability that can go through their statements in terms of gains or losses on disposal as a -- as a fairly major problem. And something like in ELG, if it can help them avoid some of those gains and losses -- it doesn't take it all entirely away, but if it can help them avoid some of those gains and losses, would be a stabilizing factor in their shareholder returns in relation to their -- their revenue requirements approved.

But you don't find that same concern over, you know, stability of a couple of million dollars of disposals in any given year, if -- if that -- across most of the Crowns, and that's why people are usually not that concerned about booking gains and losses. And -- and Mr. Kennedy and Manitoba Hydro spoke to that, that a lot of these other Crowns are -- are very comfortable booking gains and losses as they occur, and it's -- and it's not that big a deal. And -- and if you -- if you need to do that, then -- then do that, and the numbers are going to be well, well, well below the type of instability that -- that Hydro's system is made to -- made to handle through their -- their reserve mechanisms.

And we -- we specifically asked Hydro how big the gains and losses might be, and -- and they weren't able to provide a number. But we know from the number of retirements occurring, that it's -- it's really small.

MR. ANTOINE HACAULT: I'm going to take you back to overheads and, specifically, I'd like you to -- we've seen in the MIPUG-1-15, the table that showed with the new accounting adjustments, that we lower the employees by over six hundred (600) employees. That was at page 2 of three (3).

Now, I want to try and better understand your concept of fairness and full accounting. Take, for example -- and perhaps I don't know if this is an example you can work with -- if I have a number of engineers that work at Manitoba Hydro, they're housed in the three sixty (360), or somewhere else, building, and I make the decision instead, in accordance with the BC Hydro recommendations, to outsource that work and hire Acres or KGS engineers.

If I hire the KGS engineers, what comes with that?

MR. PATRICK BOWMAN: My understanding would be that under Hydro's capitalization policies, if you're hiring an outside firm all the costs associated with the rates that you pay to that outside firm to work on capital would be capitalized, because they would all be considered incremental. And I'm assuming the rates that you're paying to Acres covers not just

Acres's staff cost but Acres's vehicles and IT, and Acres', building. But that -- that would be the -- the basic premise of the -- of the external resource to do the work.

MR. ANTOINE HACAULT: And how does that relate to rate regulated full-cost accounting? How -- why is it important or not important to properly allocate the full costs of that employee to a particular project?

MR. PATRICK BOWMAN: Well, that was one (1) of the examples that I gave where you say IFRS and -- or even CGAAP, and regulatory principles would lead to the same outcome. The CGAAP or IFRS would say, Is this incremental and can you cut it off if you need to? And -- and the answer would be yes. So you'd be able to capitalize it. And it's directly related to the project.

The -- the regulatory would say, Is this a fully loaded cost associated with carrying on that project? And -- and you'd probably say, Yes, plus maybe a bit of my contracting department to be able to handle that work. And so you'd capitalize that.

But they'd lead to basically the same outcome. All of that cost associated with that resource would be -- would be capitalized.

MR. ANTOINE HACAULT: And that's hiring an external consultant? That's what you were talking about right now?

MR. PATRICK BOWMAN: You asked the question about Acres, so, sure.

MR. ANTOINE HACAULT: And now how do we achieve the same full-cost accounting if the employee is not an Acres employee?

What has been the approach until the accounting changes?

MR. PATRICK BOWMAN: My -- my understanding is that Hydro had applied what they called full-cost accounting to its own resources. And so when it deployed its own engineers, it would have loaded them, in effect, with the same type of costs that you would have found loaded in the Acres engineer's rate and charged that to the project, both for the purposes of regulatory principles and for the purposes of -- of CGAAP or -- or financial statement presentation.

And it's my understanding that that is what Hydro has changed, is looking to further change, is to start recording in its financial statements a reduction in the loadings on the basis that the accounting standards are looking for true incrementalism in costs.

So if you're -- if the building that engineer works in is -- is not specifically rented for that project but is a general company resource building, you -- you wouldn't assign a portion of it to that -- that engineer, because it's not incremental; whereas on a full-cost accounting basis and -- and what I submit is a fair regulatory test, you're still in the same original principles, which is somebody's got to pay for that building.

And -- and you would have a hard time convincing me that twenty-five hundred (2,500) employees working on capital don't drive any incremental costs or don't drive any costs at all, so -- other than their salaries or their direct -- their direct vehicle or something.

So on a ful- cost basis, you would -- you would look through your ledger of costs and conclude which -- which are fundamentally supporting in capital program and -- and capitalize those. And -- and that's still the practice that -- that I'm aware of in -- in many of the utilities and -- and -- but that will become problematic when -- when IFRS is here.

I -- I just note that I do accept the evidence of Hydro that some of their capitalization policies going back to the -- the 2008 or before were likely outside the norm. They gave some examples that -- that are definitely things that I must admit I -- I don't believe I've ever run across before. If I did, it would be the exception, with things like recapitalizing depreciation expense. That would be a good example of a -- of a very odd -- odd type of accounting practice. And -- and -- but it'd be by far the minority of the -- to my knowledge, of the -- of the costs that are reflected in -- in what's reported as accounting changes.

MR. ANTOINE HACAULT: Now, with respect to Crown-owned utilities, apart from Yukon Energy -- and perhaps you can explain that circumstance -- are there any Crown-owned utilities, to your knowledge, that have moved to ELG as opposed to ASL?

MR. PATRICK BOWMAN: No, not to my knowledge. And I believe we asked this question of -- of Manitoba Hydro, and they didn't point any out. They pointed out some municipals in -- in Alberta. But I believe the municipals in Alberta would probably largely follow the regulatory framework in Alberta, which is -- is driven by the -- the bigger outfits, like ATCO and the like.

Yukon Energy situation was a bit

different. That was a case where the Yukon government bought the assets of the Northern Canada Power Commission and set up its own company to own them, Yukon Energy, in 1987, and then hired ATCO to operate that utility for ten (10) years. And it established all of the accounting and financial policies and rates for Yukon Energy for about ten (10) years. And -- and Yukon Energy was a shell staff of a couple of -- of contract managers, basically. In 1997, they took over direct management of the utility and -- and finally made it before the utility board in 2005.

And -- and as part of the lead up to that hearing, we did a depreciation review. And -- and the people running it sort of learned that -- that these depreciation rates that were in their system that no one really understood that well, were -- were -- actually had been calculated by ATCO based on an ELG approach. And -- and that's when they did a fairly major policy review of -- of what's the appropriate approach for -- for Yukon Energy. And -- and I participated in that review.

And they looked at the other Crowns across the country, and they looked at the principles and the logic behind each. And -- and they spoke to their utility regulator and its advisors. and -- and they ultimately applied under the ASL method and -- and were approved for that.

THE CHAIRPERSON: Are we talking ELG for rate-setting purposes or ELG for financial statement purposes?

MR. PATRICK BOWMAN: To -- to -- they were used for both. But in -- yeah, in 2004/2005, they -- they -- when they discovered they were on ELG and they discovered the impact it was having on customers, in terms of costs, the utility elected to move to ASL, applied to the utility regulator for that permission, and the utility regulator gave them approval.

And I believe in Yukon there's actually a clause in the act that says that they must use depreciation policies that the utility board approves. So -- so they -- they switched from ELG to ASL for both purposes and continue, to this day, to use that.

THE CHAIRPERSON: I wasn't specifically talking about Yukon. I should have been more specific. In terms of the other jurisdictions, your statement was that nobody else has moved to -- nobody else has adopted ELG.

And I'm trying to square that with your early -- earlier testimony that many public utilities are using ELG because of the benefits that flow from

ELG for financial statement purposes.

MR. PATRICK BOWMAN: Mr. Hacault's question, as I understood it, was related to -- strictly related to Crowns and that no Crowns, I was aware of, was using ELG.

MR. RAYMOND LAFOND: However, this is probably very true. But if a survey was done and Manitoba Hydro was asked what it was using, the response would be ASL. And it will still be the case in one (1), two (2), and maybe in three (3) years from now. And it's only then that it changes.

So what it is now, what it has been, as -- as based on what you know, is that being studied and reviewed in other Crown utilities?

MR. PATRICK BOWMAN: Let me -- I'll go through it quickly. In each of -- in -- Newfoundland certainly moved to ASL for the purposes of moving to IFRS and being modif -- regulated on a modified IFRS and had every intention of continuing to use ASL through IFRS. Saskatchewan, which is already on IFRS, uses ASL.

BC Hydro, which is going to this modified IFRS, but their -- their exemption doesn't -- to -- to my knowledge, is not meant to cover depreciation. But my knowledge is they're -- they're still on the ASL.

And certainly, Yukon Energy just had a study completed by KPMG. And it was meant to be -- cover componentization and -- and rates for -- that they can transition through to -- to IFRS. And -- and that's based on ASL.

And in -- in the Northwest Territories, Mr. Kennedy participated in the -- the preparation of an ASL study for Northwest Territories, who is -- who is headed to -- to IFRS. And -- and they've done their componentization review and -- and does have to add one (1) -- one (1) category, is my recollection, specifically in their capital assets for overhead -- or overhauls. Overhauls is one (1) that gets particular attention under -- under the IFRS. Otherwise, they're using the -- the old FERC system of accounts which is basically the same as the OAB one and -- and that many, many utilities are using.

CONTINUED BY MR. ANTOINE HACAULT:

MR. ANTOINE HACAULT: And those are the accounts to -- which I had put to Mr. Kennedy. He -- the NERC accounts with a very limited components, is that correct?

MR. PATRICK BOWMAN: The NERC accounts

have -- for hydro generation, would have -- my recollection is seven (7) components for thermal. It -- it may be one (1) or two (2) more when you add in fuel holders. It doesn't have an overhaul category, but like I said, there'd -- there'd be need to add in an overhaul category.

Mr. Kennedy had testified about exciters and exciter casings and -- and generator windings and the like. And I -- I can't recall ever having seen a -- a depreciation study that has reference to generators separate from generator windings, separate from exciters. But -- but Mr. Kennedy has certainly reviewed more of those than I have.

MR. ANTOINE HACAULT: I'd like you to address your mind to salvage again. And -- and in particular you discussed, in the exchange between the Board, the Bipole 1. That was one (1) example.

But I'd like you to discuss net salvage value and your experience with respect to the difference between the greenfield redeve -- or development and somebody purchasing an existing site of a generating facility such as -- I think you had referred to Bluefish?

MR. PATRICK BOWMAN: I did. Bluefish is the hydro generating station in the North. It was the first hydro plant built north of 60. And it was built by a mine, the Con Mine, Consolidating Mining and Manufacturing in the -- my recollection is in late 1930s. That plant was sold to Northwest Territories Power in about 2003. I participated in some aspects of the purchase of the plant and certainly the regulatory review of the purchase of the plant.

And I will say -- and -- and since then, I've done considerable more work on -- on redevelopment of the plant, including the project I referenced for the dam has been entirely rebuilt. And -- and I was involved in the contract negotiations and the management committee for that -- that major project.

But the facility that was built -- the majority of that facility was -- was probably in a situation that's at least as advanced as Pointe du Bois, if not more, when it was purchased. As a matter of fact, the dam started leaking and needed emergency project within -- within six (6) or seven (7) years, and that was sort of well known that that would -- would occur and that they needed to wait for that to occur to -- to move on.

But nonetheless, there was a relatively sizable price paid. The utility board agreed with that price and put it into rates in full. And -- and the prime reason is because the value inherent in a hydro site, there's only so many hydro sites around. Once you've developed certain infrastructure and once you've developed access, and once you've gotten a first round of -- of water permits and -- and you've gotten a public used to the idea that this is a place where a hydro plant goes, there is a -- there is a huge -- huge value in -- in that -- in that asset.

And -- and the people in future are -- are highly likely to continue to benefit for that for a -- for a long time.

MR. ANTOINE HACAULT: So in this example, even though the plant's life had basically expired, there was actually a purchase price paid for it, and then they tore down some of the old structures and rebuilt it, that -- so we had no negative salvage value here, so no negative amount that had to be absorbed with respect to this old facility?

MR. PATRICK BOWMAN: There was a certain amount charged related to -- to tearing down the old dam after the new one was built. It's -- it's clearly a removal cost. But my submission is the future value of the plant and of the site that was purchased far exceeds and -- and benefits future ratepayers far more than -- than the -- the cost of --

with -- with a relatively small and -- and, frankly, somewhat difficult to disentangle cost of -- of removing one dam versus -- versus building the other when you're dealing with the same crews and the same equipment and the same site, and -- and many other reasons why it's a little bit discretionary to even carve those up.

MR. RAYMOND LAFOND: But the removal was charged to expenses and not to capital, correct?

MR. PATRICK BOWMAN: The removal in that case was actually charged to a net salvage reserve which they had put in place years before. But interestingly enough, because they had just bought this facility it -- it never really had a removal reserve associated with it. So it's -- it's over a group of -- of pooled assets. And -- and as a result, it'll -- it'll be recovered through -- through -- effectively through future rates.

MR. RAYMOND LAFOND: Charged to a salvage reserve, that means charged through retained earnings? That's the only place where you can take reserves.

MR. PATRICK BOWMAN: Well, no, sir. Much like Manitoba Hydro, this utility in the past had a net salvage component in their depreciation rates.

And just like Manitoba Hydro's net salvage, if it takes 10 percent of -- of Wuskwatim for -- for net salvage all that effectively does is -- is build up the accumulated depreciation faster. And -- and, therefore, when you finally go spend that money, it's -- it's effectively spent out of accumulated depreciation. It's one (1) of the odd -- odd accounting features.

A lot of the utilities who still do this have made an effort to break those two (2) out. They really want to report that salvage separately on their balance sheet, but not all of them find it easy. And we did ask Manitoba Hydro if -- if they could even account for them separately, and we were told they're -- they're un -- you can't unscramble that omelet.

CONTINUED BY MR. ANTOINE HACAULT:

MR. ANTOINE HACAULT: I'm moving to some very specific points leading to some other items. It was suggested by Manitoba Hydro in its rebuttal response that you were, with respect to the depreciation method, advancing some kind of a revenue-based standard.

Do you have any comments with respect to that?

MR. PATRICK BOWMAN: Yes. In -- in no way am I suggesting that they adopt a revenue-based standard for depreciation. I'm saying that you have a choice of how you implement straight-line depreciation. Straight-line depreciation is, if anything, it's still linked to the asset. It's not linked to the revenues the asset generates.

What I'm saying is that you want to be guided in that decision by things like value and fairness and -- and -- and ratepayers. And -- and by mentioning the word "value", people took that to mean revenue, and -- and I'm not suggesting that. If I -- had I been suggesting that, I certainly wouldn't have been suggesting an ASL. I'd be suggesting a sinking fund or beyond, because that's -- even the sinking fund is -- doesn't get as far as an economist would like, because it does not provide for in -- inflationary pressures in the mix. So it's -- so, no, I'm not suggesting a revenue standard at all.

MR. ANTOINE HACAULT: And -- and I guess that leads to another point of misunderstanding. I gathered from the transcript that some people took my indication that we weren't actually going to be presenting with respect to DSM that somehow that issue wasn't important to -- to MIPUG. Could you comment on the importance of DSM to the industrials?

I think some people mistook my comment on prioritization of where we were involved in the hearing to mean something with respect to whether -- what the industrials thought about DSM. And that was totally taken out of context if it was stated that way.

So I'd like Mr. Bowman to comment on the importance of DSM for industrials.

MR. PATRICK BOWMAN: Yes. The industrial DSM program is of major importance to the customers I've dealt with. It's also of major importance to Manitoba Hydro. It is -- the Performance Optimization Program, in particular, is -- is the largest single DSM program Manitoba Hydro runs, and it's among the lowest cost and most economic. I was just flipping through the power resource plan; and as much as people will have their comments on the RIM test, this program has a RIM test of one point five (1.5), which means that as a result of the program --

MR. ANTOINE HACAULT: So what's RIM, for dummies like me?

MR. PATRICK BOWMAN: Rate impact measure. It is a measure of how much benefit ratepayers see through their rates as opposed to how much cost the utility is incurring. And a RIM test above one (1) means, as a result of pursuing the program, everybody's rates went down.

And there will be a -- a certain view that RIM is excessively strict to standard. But even on that excessively strict standard, this program passes in flying colours. It's got a RIM of one point five (1.5). It's 346 gigawatt hours. It's the biggest single program. And the only other program that's even close is commercial lighting, and it's got a RIM of about one (1).

So industrial DSM is an entirely different beast though than -- than residential or commercial customer DSM. It's not a marketing concern. It's -- you're dealing directly with these customers. And -- and in most of them, Hydro will have a full-time employee pretty much dedicated to one (1) or two (2) customers. They work on a very close basis. And -- and the customers, once there's an economic investment opportunity, will generally be able to come up with the money to pursue it. The -- it's not -- it doesn't generally fall into -- it doesn't at all fall into it, but, I understand, to Ms. Morrison's area. And it's a very different set of considerations than we understood much of that area or the hearing to be going.

So, to my knowledge, the customers are -

- outside of two (2) specific areas, the customers have -- have expressed no concern, didn't ask us to pursue it in this proceeding.

The only two (2) exceptions I would note is the curtailable program. We'd comment on the curtailable. And I'd only say on the curtailable program, similar to the performance optimization, the curtailable program is a -- is a very important program to the customers who participate in it. And it gives excellent long-term value to the customers and to Manitoba Hydro. And it's been reviewed and approved by this Board many times over. And it actually arose because of and pushed by this Board to Manitoba Hydro to help develop some options that they could work with industrial customers on to find joint benefit.

So that program is -- is very important. It's -- it's very valuable. And -- and the customers are actually somewhat disappointed that Hydro would choose to propose to cap it at this time, because they're -- even though no one has signed up for many years, there is still the potential that a customer might come along and want to bring Hydro a very good and long-term capacity resource that -- that maybe lost because of -- because at this very moment, Hydro would cap it lower even though it may become a greater value in the future.

MR. ANTOINE HACAULT: Now, with respect to curtailable program and options -- and the Board doesn't need to turn to this -- but I'd like you to address two (2) issues that you responded to in pi -- PUB Interrogatory 4 of MIPUG.

Firstly is whether or not a jurisdiction like Newfoundland Hydro has lower rates for some industrials. And I'll ask the next one following.

MR. PATRICK BOWMAN: We prepared a response to PUB-4 where the Board was asking us, based on our -- our Chapter 2, Tab 2 of our evidence, where we were explaining the customers' concerns and the -- the assignment they charged us with, that we said that one (1) of the concerns of the customers is that Manitoba is actually not -- not the lowest cost for power available to them.

I -- I put that comment in there so that people understood the context under which I was -- was sent off to do our assignment. And -- and I -- I put it in there as a -- as a framing of the customers' concerns.

We were asked to give an example. And -- and I'm personally only aware of one (1). And it's -- it's a company in -- in Newfoundland who is connected and -- and was told by Newfoundland Hydro what the published rate would be and -- and went to the utility board to say that that's, in -- in the appropriate application, the published rate.

And they were told that -- and they -- and -- and the utility board agreed with them and -- and said that, No, there's a lower rate that they should be charged. And -- and that's the rate that they're paying going forward, and it is significantly lower than Manitoba's rate.

Now, it may not be for long, but it was one (1) example I was aware of. The -- the clients had some others, but I -- I'm not involved with them in -- in doing that power cost estimating.

MR. ANTOINE HACAULT: And the detail of that discussion is at page 2 of 3, if people are keeping track, MIPUG-1-4. At that same page, there's a bit of discussion with respect to rate options that could be developed to the mutual benefit of Manitoba Hydro and industrial customers.

Could you take us through one (1) or two (2) examples of what that might be?

MR. PATRICK BOWMAN: Well, the main -- I can give two (2). Just to clarify, they're some -- they've been talked about a bit. One (1) is something that Gerdau referenced when they were before this Board, is something called demand response. I think it may have -- it's possible it was -- it was mischaracterized at -- at one (1) point.

Demand response is simply a type of program or a type of offering where -- where a customer is provided the opportunity to see the cost pressures that Hydro is under at a given point in time, or the cost opportunities. And they're given an option to amend their load and adjust their load in order to help Hydro profit from or save money from particular supply conditions on the system.

And, M. Lafond, I believe you asked a question of Mr. Cormie about curtailable and whether you'd be curtailing someone because the prices went way up in another jurisdiction. And Mr. Cormie rightly said that that would not be a reason for a curtailable program, because a curtailable program is about capacity. It's about how do you meet your peak. It's not about how do you go ahead and sell that power.

Demand response would be what you're talking about. It would be a means by which a customer who's operating and -- and may have some options about how it operates its load and -- and which production lines it's going to run could potentially voluntarily sign up for a program. This exists in some other places.

And the utility can phone them up and say, Hey guess what guys, it's -- it's 34 degrees in Minneapolis and we've got room on our transmission lines, and if you want to drop your load back, we'll sell some of that power and we'll find a way to share the benefits.

And right now that doesn't exist at all. There's no way to do that. The customers don't even get that signal. They're not aware of it and -- and Hydro therefore has -- has no opportunity to -- to capture those -- those events. They're -- at this point in time they're probably somewhat few and far between but I'm not sure we know without having something set up.

And -- and the customers have asked -- asked Hydro about moving on something like this, I know, and -- and -- but I'm -- I'm not in the middle of -- of any discussions. But it's one (1) example of a way that when you're customer sitting and running a plant here, and -- and you get an IFF that lands on your desk saying, Your rates are going up 4 percent a year for the next two (2) decades, you start to say, well, what can I do about it.

It's great that I'm a customer of Manitoba Hydro. I can't pursue another supplier. I've done all the DSM, or -- or I'd love to pursue more DSM but is there anything else I can do to help manage my bill. Well, the curtail department is closed and demand response isn't available, and pretty quickly they -- they loose out on those options.

So -- so that's where -- why these get raised and demand responses is very much in that light. It can be called DSM. Some people would call that DSM, some wouldn't, but -- but for sure it's -- it's a way of -- of managing a person's load to -- to work jointly with the utility.

The other one that's been raised and it's been around a long time is -- is related to self generation. And it's not very common in Manitoba. It's -- it's not -- it's not a huge opportunity in Manitoba. We don't have a lot of like lumber mills like you have in British Columbia or something where -- where self-generation is -- is relatively common.

But there are examples where customers have waste products that they could use to supply electricity to the grid. Those waste products are generally going to waste today and whether that's low grade heat, or whether that's hydrogen that's being vented, or whether that's, you know, more wood waste that could be used, these are resources that exist in Manitoba that -- that it's possible could economically produce power.

The one thing we know is that they're not currently economically producing power, and -- and part of the reason is because of -- of Hydro's policy that says, Well if you're going to -- if you're going to go ahead and use your hydrogen to generate power, you have to use it first before I'll take any of it. And -- and there's a certain logic to that.

I won't disagree that if you're a customer buying power from Hydro for -- for an average of about four (4) cents and -- and Hydro is busy saying, Well if I -- if I get a wind company coming in here, if I get a DSM program in here and it can meet a test of about eight (8) cents I'd be interested. And you walk up and say, Hey guys I got some power we can develop for eight (8) cents. And they say, I'm not so sure I want to be selling you at four (4) and buying at eight (8) so why don't you go supply your own load first.

And -- and we end up where we end up today. Like I said, it -- it has a certain logic but it also has an outcome that -- that maybe quite sub optimal, and -- and so at times the customers have -- have queried whether that policy makes a lot of sense because of the -- the end result.

You know, it's -- just because the -- the hydrogen generation or the -- or the -- the waste heat recovery has a -- has a logo on it of Enbridge Pipelines or someone who's already a customer, and that's not to say Enbridge is one of the good examples, but that somehow it's -- it's less valuable to Hydro as a kilowatt hour than -- than a landfill gas or a -- or a wind or something.

And so those are -- those are places where -- where the disadvantage of dealing with a monopoly is you get one shot. Manitoba Hydro says, No, you got -- you go home and -- and you don't -- you don't pursue these opportunities as a province. So that's -- that's one that -- that the members have mentioned at times.

Like I said, even if someone changed the policy I can't guarantee there's any power that would come on tomorrow but I can guarantee that with the policy there -- there's no power of that sort really coming on the system now as an IPP.

MR. RAYMOND LAFOND: But that policy would have to have provisions, for instance using your example, whereby if Manitoba Hydro was I guess forced, if I can use that expression, to buy the production from that customer, or -- or that industrial customer, it would need to be able to at least sell it to others or export it for at least the same amount otherwise the other ratepayers are -- would be generating a loss.

MR. PATRICK BOWMAN: Oh, absolutely, Mr. Lafond. And that -- but it's the same premise that the wind turbines down in St. Leon are approached. Like -- I'm not involved in those negotiations. My understanding is Hydro and that company worked out a business arrangement that was beneficial to both. And the ratepayers are ahead because they have that -- that wind generation. And the price that was paid was -- was a negotiated price reflecting the value of that power.

What I'm saying is that in this unique situation, where you happen to already be a customer of Hydro, you don't even get to talk about the value of the power. You're stuck with, your power is only going to be able to be valued at four (4) cents, until you fully offset your own load.

And so, like I'm saying, I totally understand that the concept that Hydro doesn't want to be at the same time selling power to a customer for four (4) and buying it for eight (8); like that's -- that's basic. But -- but this is where sometimes regulated utility environments are different. And -- and the -- the rational outcome is you're going to be selling it for four (4) anyway. That's what you're doing now, you're selling the entire load for four (4).

The only question is whether you could have an economic supply coming in and -- and maybe you're cutting off a good option for Manitoba and even a good option for Manitoba ratepayers by -- by that aspect of the policy. And it's -- it's a difficult area, but it's -- it's one (1) that people haven't seen Manitoba Hydro budge on.

CONTINUED BY MR. ANTOINE HACAULT:

MR. ANTOINE HACAULT: Mr. Bowman, while you were tangentially on DSM, it might be appropriate to draw the Board's attention to -- we're getting into the recommendations and kind of look at the revised IFFs.

Part of what's been happening there, as I understand it -- it is the DSM issue I'll call it. And it's at Tab 20H of our -- 20 -- 'H' as in Harry - in our book of documents, pages 368 and 369.

MR. RAYMOND LAFOND: I'm sorry, that

was Tab 20?

MR. ANTOINE HACAULT: Tab 20, page 368 and 369.

(BRIEF PAUSE)

CONTINUED BY MR. ANTOINE HACAULT:

MR. ANTOINE HACAULT: It looks like everybody's located the pages, so please address the DSM issue as I'll call it, with respect to firstly, I guess, removing it from capitalization and -- and what's included in the expense side going -- following that.

MR. PATRICK BOWMAN: Sure. And -- and I think this may be the -- the last piece that I needed to touch on. I made a comment earlier that some very difficult decisions about accounting standards were made in places like British Columbia, because they knew that the impacts of IFRS were going to be very, very large on the utility.

Manitoba Hydro has put together these tables to effectively show that the impacts of IFRS are very small on Manitoba Hydro. So we don't need to worry about going through some of the gyrations that happened in places like BC.

And my -- my comment was that all hinges on definition. There's some very curious definitions that go into Manitoba Hydro's interpretation of what the IFRS impacts are.

So one (1) of those definitional issues is that Hydro has managed to take some very large accounting changes, including those that have not yet occurred, or were not -- have not been part of any actual year yet, and say, Oh, no, those are -- those are CGAAP changes. They're not driven by IFRS. They're not an attempt to move towards an IFRS standard. They're -- they're just CGAAP. So -- so we won't count those as IFRS impacts, we'll put those outside.

I think if you read this Board's Order and some of the encouragement that they received, it was -- it was very much saying IFRS is coming, and so let's get on and try to start to make these changes. And I -- and I think -- so I think it's a little bit hard to say those are not at all whatsoever linked to IFRS in terms of definition.

But the second one is the one that Mr. Hacault raised, which is the DSM. And -- and I do believe people have seen this table before. And on the page 369, it shows the benefits to depreciation expense from eliminating DSM, right? Which is 38 million in the first year. A row called Reduction in Rate-regulated Assets.

MR. ANTOINE HACAULT: So has everybody found that reduction in rate rel -- rate-regulated assets under the year 2015? Is that what you were referring to?

MR. PATRICK BOWMAN: Yes. Thirty (30) -- 38 million under 2015. It's an -- it's listed as an IFRS change. We save 38 million from rate-regulated assets. And -- and just to be really clear, this is the amount that would have been depreciated on the DSM programs in that year.

And the DSM programs are effectively currently done on an amortization accounting type of basis. Amounts are spent each year, they're capitalized and they're -- and they're amortized, and so long as your program is relatively constant size, the -- the ins and outs will tend to be about the same. You'll tend to spend the same as you amortize.

So 38 million is what they've been -- what they're scheduled to amortize in -- in four (4) -- 2014/'15. But that we don't have to amortize anymore; that's an IFRS benefit.

But then you flip back a page and you

see three sixty-eight (368). You see a row called "DSM" under "IFRS changes".

MR. ANTOINE HACAULT: And where is that? In the middle of the page?

MR. PATRICK BOWMAN: Under the 2015 column in the middle of the page. DSM -- IFRS changes, it's the first row, thir -- 23 million.

And, again, there's been some evidence -- or a lot of evidence, about whether 23 million is the right spending level, but -- but I'm not here necessarily to talk about that. My concern to point out is that DSM spending is clearly lower than the levels it has been, and by a substantial margin, $15 million in terms of a sustainable level.

And the effect of them being presented this way in the table is that materially reducing spending on DSM is not being called a DSM reduction, it's being called an IFRS change. That -- part of the reason IFRS doesn't seem to hit the income statement that much is because DSM is being scaled back.

And -- and indeed, if someone wanted to manage it more, they would scale back DSM even more. Because now it's a direct one-to-one to the income statement. And that's a -- I think that's probably a -- it could be a bit of a concern that something that's a long-term asset, a long-term valuable program with real benefits that sustain for -- for the customers and for the utility, become something -- they can become, you know, shuffled around in annual budgets. And -- and if we need to find some savings, we'll just scale back on -- on DSM this year.

Part of the benefit of having it in the capital program is that capital program is not necessarily reviewed or scaled back in the same way. And -- and in particular, I take quite an exception of calling less DSM spending an IFRS benefit. It's -- it's not based on an IFRS benefit, it's a -- it's a factor of -- of -- of putting less emphasis on that area of the company.

MR. ANTOINE HACAULT: And -- and that amount gets reduced if we go across that line to the right in the future? It doesn't stay constant at $22 million?

MR., PATRICK BOWMAN: Right. Well, both -- both drop off as you -- as you go across.

So when we looked at this table and -- and heard the assertion that, don't worry, IFRS isn't costing us much, we said -- I guess it depends on how you -- how you define IFRS. You're getting 15 million in offsets because you're cutting back your DSM program. You're getting 60 million in added costs to ratepayers that you're kicking out of the analysis because you're saying, it's not really IFRS, it's sort of pre-IFRS. But it's not even really pre-IFRS, it's -- it's allowed under CGAAP, even if it's not required under CGAAP.

And then you add to that that these tables would not yet adjust for the ELG error that we talked about which is missing at least 3.6 million for Wuskwatim plus ELG impacts to the future projects, because these are based off of the IFF and the IFF has the incorrect approach to -- to dealing with future projects. So at least 4 million in the first years, scaling up to perhaps past 40 million in -- in the back-end.

And the final thing that these -- these tables do is that they -- they fully take credit for a salvage reduction as a -- as an IFRS benefit. And -- and again, I noted, I believe you could -- could, should, ought do that in any event, whether you're going to IFRS or not and whether it's -- and without waiting for the IFRS year, but it also notices that numbers used in this table are way beyond the estimates of how much salvage is being put aside each year in the other documents filed. These will report salvage benefits at -- it's at 63 million in this table. I think if you look in -- and that's at page 369, 63 million.

I think if you look at the IFF you'll see that reported at 68 million. And yet if you look at -- compare Mr. Kennedy's studies that we now finally have a study of ASL with and ASL without, and -- and there has never been an ELG with -- prepared, we're told, you'll find that the difference between the two (2) is only 32 million, not -- not anywhere near 68.

Now, 32 million, on -- on an ongoing basis, there -- you could -- there's also a -- because you eliminate net salvage, you also eliminate -- how do I put it? You -- you increase the calculated variance in your depreciation -- in your cumulated depreciation because all that accumulated depreciation that's arisen over the years, because you were setting aside salvage, you don't call salvage anymore. You just call it accumulated depreciation for the purposes of amortizing assets.

And you don't net it out and -- and do an adjustment and take out this amount. You just leave it in there and say that now I'll consider that asset amortization. And that amount's about $400 million. It's -- it's the difference between Mr. Kennedy's ASL with and ASL without studies. And -- and I wouldn't expect it to be much different in an ELG study, but we don't have an ELG study to compare them.

So that's about 400 million, 420, actually. And as a result of there being this 420 million in the calculated salvage provision that's supposedly not -- or it's -- it's determined by policy not to be needed anymore, it starts to become part of a true-up, and it changes the true-up by about 14 -- 12 or 14 million.

So -- so what's the benefit of eliminating salvage? It -- it's not anywhere near the sixty-eight (68) in the IFF or the sixty-three (63) here, according to Mr. Kennedy's studies. It's -- it's probably thirty-two (32) on an ongoing basis and -- and possibly forty-six (46) if you -- if you consider the -- the true-up impact, but...

So by the time we were done we -- we really didn't end up with a -- with a no net impact of IFRS at all. We would be inclined to say you have fifteen (15) too much you're crediting, you have sixty (60) too much, you're -- you're ignoring, you have between four (4) and forty (40) depending on the year that you're ignoring from ELG and -- or you got an -- an error from ELG and you have somewhere between 15 and

30 million that you're calling salvage benefits here that doesn't seem to be borne out in the study.

And -- and those are big enough numbers that I think considered carefully we're -- we're in a range that's approaching -- approaching a hundred million dollar impact. And a hundred million dollar a year impact is -- even if it's only half that, I would -- I would think a hundred million dollars a year straight through the income statement is probably of a sufficient magnitude that somebody might -- might want to have a discussion more along the lines of what I'm sure happened in -- in British Columbia.

THE CHAIRPERSON: Maitre Hacault, I'm just wondering in terms of our time -- I'll just check with my panel members to see what their availability's like.

(BRIEF PAUSE)

MR. ANTOINE HACAULT: I don't think so. All I was going to get -- Mr. Bowman had filed two (2) revised responses to requests that the PUB had made. I don't intend to go to the old ones because they're revised to update with respect to IFF12. And I just need him to explain those two (2) responses and that basically finishes his testimony.

I'm assuming in that that the Board has had the opportunity to read his recommendations and his evidence and his recommendations in the IFF. But these tables I think merit a little bit of time to make sure that the Board understands the tables and -- and these two (2) responses that were -- or questions that were asked of the -- by the Board of Mr. Bowman.

THE CHAIRPERSON: Agreed. Let's do that.

MR. PATRICK BOWMAN: PUB 20, you said?

CONTINUED BY MR. ANTOINE HACAULT:

MR. ANTOINE HACAULT: I believe it's your updated PUB/MIPUG-11.

MR. PATRICK BOWMAN: Oh, you want to start -- start there. Okay.

MR. ANTOINE HACAULT: It was revised for IFF12.

MR. PATRICK BOWMAN: So this -- this version that I have in front of me is dated January 17th, and it's -- it is at the top PUB/MIPUG-1-11. And it does say specifically, "Revised for IFF12."

(BRIEF PAUSE)

THE CHAIRPERSON: M. Hacault, you're talking about 1-11?

MR. ANTOINE HACAULT: Yes, it's 1-11, but there was a request by PUB to revise it. And in the bottom left-hand side there's the date January 17, 2013. And at the very top is says, "PUB/MIPUG-1-11." And then in parentheses, "Revised for IFF12."

So that -- the Board had asked that previous tables that had been prepared by Mr. Bowman and InterGroup be revised to reflect IFF12, which if everybody recalls, we received very close to the start of the hearing. So nobody really had a chance to analyze that document.

And what I asked Mr. Bowman, and this leads to why he makes recommendations or what his recommendations are finally, and this is also part of a material at page 2 of 6 of PUB/MIPUG-1-11. There's a table, and I'd like Mr. Bowman to please explain how he comes to that table and how it responds to the Public Utility Board's request of him.

CONTINUED BY MR. ANTOINE HACAULT:

MR. ANTOINE HACAULT: Could you please proceed, Mr. Bowman?

MR. PATRICK BOWMAN: Thank you. We

have provided a series of recommendations in our -- in our pre-filed testimony which, frankly, haven't changed much on the basis of IFF12. So -- so this -- if people have recently read the pre-filed testimony, this will be quick, I believe.

This is basically an IFF presentation of the first five (5) years of the IFF. It is taking directly the numbers out of Hydro's IFF and -- and making adjustments for the items that we say merit adjustment.

And in each case we've done a -- a full adjustment. We haven't added in speculative things like -- like we say there's still clearly a need for Hydro to have pressures at internal cost control. Those aren't in here. We've expressed some concern over budgeting based on vacancy rates that are far below what's actually achieved; that's not in here. This -- this is strictly taking account -- the accounting and timing things like the depreciation into account, and as well as our recommendations on rates.

And you'll see the recommendations on rates, the first one that we had was that Hydro be granted an increase. We thought -- or my -- my view looking at it was that the rates that are in place today have 5 1/2 percent increases, or a 5 1/2 percent higher level than was finalized at the last GRA. That's a -- a sum of a 1 percent rollback reinstated -- or -- or not yet -- not yet refunded. A -- a 2 percent increase at April 1, and a 2 1/2 percent increase at September 1.

So -- so the sum of those, the 5 1/2 percent increase. And my basic conclusion was I did not see a reason to -- to either reduce those, or to add the increase that's proposed for April 1, 2013. It appears that there's more than enough room to not have the subsequent increase, and that would lead to 5 1/2 percent over the two (2) GRA years, which is, you know, roughly in line with, perhaps a bit above, inflation.

It's already built into people's budgets and -- and it -- it certainly begins and moves towards what we would say is a sensible and predictable transition to higher rate levels. There's no doubt when you get further out in the IFF, higher rate levels will be required. We're moving towards growing loads and need for new resources and higher cost resources. And certainly costs go up on things, aspects of operating and maintenance costs for example.

So -- so it's not an objection to rate increases. It's a -- it's a chance to say, How do we do this on a sensible and orderly basis. So we built into this in the first row the -- the proposed rate which are Hydro's rates. We added one (1) row which was -- which is a bit of a concern of mine. I -- I work for a lot of Utility Boards. I consider their decisions to be quite important for how we go forward, and -- and I think it's quite important that people be able to read them with -- with some confidence that what's been decided is -- is going to be implemented, and -- and despite some words mixed in the middle of it, I would read Board Order 5/12 to be -- to be making a point that -- the people could reasonably respect -- accept -- expect a 1 percent lower rate.

And so even though the start of this GRA April 1, 2012, I can accept that 1 percent being part of the increase, I'm not sure that I -- I was not accepting of the concept that that 1 percent from the deferral be just rolled into retained earnings. So that's the 26 million shown there. I think we've seen a few different numbers for it; somewhere between twenty-four (24) and -- and twenty-six (26), and maybe even a little bit off -- off of that range.

But nonetheless it's -- it seemed that if -- if people are going to have due regard for this Board's orders, the -- that -- that decrease was -- was merited. Now, how it gets dealt with I -- I had some suggestions. I think with bigger customers you could -- you could do a bill adjustment with smaller customers. You'd need to -- you'd need to think of a way that you could fundamentally apply that to their benefit. But it's not like you can go to every residential customer and restate their bill or write them a cheque. I don't believe --

MR. ANTOINE HACAULT: Mr. Bowman, I'm not too sure the Board's following you. When you're saying the 1 percent that's the one (1) -- there is a difference that I had brought up in my cross-examination between what was actually approved and then Hydro expressed the view that that 1 percent that had not been approved and was supposed to be put in a deferral account could continue to be charged as an interim rate until the Board said something about that 1 percent.

That's the 1 percent that we're talking about?

MR. PATRICK BOWMAN: Right. And I'm saying that in their 2011/'12 statements Hydro -- my understanding is it was -- it was put in a deferral account. It was deferred. It does represent a balance that they have not taken into income, and that they're proposing to take into income in 2012/'13 as a one-time amount.

And -- and I'm suggesting that the amounts that relate to past years, not the test year, be credited back to customers in -- in some way or other to their benefit. And that's the $26 million reported there. So instead of Hydro's one three-three-one (1,331) as revenues I would say one three-o-five (1,305) is an appropriate level of revenues.

The second thing that's shown there is that Hydro is proposing another rate increase, of course, the 2013/'14. The way Hydro runs its IFF the past increase is already in general consumer revenues, so, Hydro is proposing another increase which is the sum total of 48 million in '13/'14 and going forward, and I'm saying that's a -- that's a rate increase that need not be implemented at this time but as far as years after that I've kept every other increase the same as what Hydro has put in.

So instead of the forty-eight (48) in '13/'14 we've used zero. Instead of the one-o-four (104) in '14/'15 we've -- we've taken out the forty-eight (48) again and used fifty-six (56). We haven't touched extraprovincial. We've not touched the others so that you end up with the revenues shown there.

On expense side it shows Hydro's

expenses across the board. Our suggestion is that -- is that at least for the purposes of rate regulation if not something broader full-cost accounting as a principle be maintained. We've put in the full benefit of -- of an overhead practice based on full-cost accounting. It's possible that is -- has more that can be justified.

That there are some things that Hydro was adjusting that is -- are perfectly reasonable. In which case the downward adjustment would not be as large as 56 million shown. Has less change in capitalized overhead. We -- we've used the fifty-six (56) from the previous schedule we just looked at.

And fifty-eight (58) in the following years, and then we have said, Do not do your adjustment to DSM. It doesn't -- is not appropriate to put DSM through -- through net income -- or through O&M, I'm sorry. And --

MR. ANTOINE HACAULT: Sorry, on which line is that? When you say, DSM. I don't see DSM anywhere on this sheet.

MR. PATRICK BOWMAN: You would see less IFRS changes-DSM. And then below that you would see, Less IFRS changes-admin in general, and those are the further overheads that Hydro is proposing not to -- not to capitalize. And so we've done those adjustments so that we've come up with an alternative operating and administrative cost for the purposes of this -- of this forum.

As a result of those adjustments and less revenues, we've put in a small amount of added interest expense just to make sure that the -- the compounding impact was not lost.

When it comes to depreciation and amortization, we have put back in depreciation as a -- as a deferred amount. We've put back in the capitalized overhead impact. We have reversed out the change to Equal Life Group, assuming that an average service life is maintained and we have advanced by two (2) years the implementation of stopping net salvage, which is 60 million a year, but only for two (2) years, because by '14/'15, Hydro's already assuming net salvage is out of the mix.

And, again, I use sixty (60) on -- on the basis of -- of what was in Exhibit 55. Again, based on Mr. Kennedy's evidence, I don't believe the number may -- may quite be that large, but I've tried to use a consistent set of Manitoba Hydro numbers.

We -- we said there's no -- we have no comments on water rentals and assessments or fuel and purchase power or capital and other taxes or corporate allocation to end up with the net income shown there.

Manitoba Hydro's net income was numbers people were quoting of 60 million, I believe, and we're saying the net impact of all of the above is -- is a beneficial impact of 68 million despite not awarding the rate increase so that we would be saying, if all of these measures were adopted, nothing changed in O&M, nothing changed in budgeting for -- for vacancies, but all these measures were adopted and no rate increase was granted in '13/'14, Hydro would -- would, on the same basis, end up with a net income on the range of 120 to 130 million, which -- which is -- was, in our view -- or my view, sufficient that I wouldn't be recommending a further -- a further rate increase. So that's all that table's doing.

As part of that, we also did an adjustment to the debt/equity ratio; that's two (2) pages back, and -- and all it is effectively doing is saying, when you go to calculate a debt/equity ratio, there's been fairly major amounts of spending on Keeyask and Conawapa which are not in service. We have netted those out of the debt and said that is not approved, it's not part of an NFAAT yet, it's not been received its OAC, it's not serving customers, it's not used and useful, and so it's not appropriate to build those costs into the debt/equity calculation. And so we did an adjustment to debt/equity ratios, and it shows that rather than plummeting quite as far as Hydro said, the debt/equity -- what we call the regulated debt/equity, it would be a little higher.

We would also say -- which is a point I'm happy to talk about, if you like. Hydro -- we agreed with Hydro earlier on that accumulated other comprehensive income is probably not a measure that's appropriately included in debt/equity ratio. My understanding is Hydro does look to include that at this point. But -- but AOCI is -- is not really something that -- that fits with the concepts of sort of a long-term type of number like that. So we've done that -- taken that out as well.

The -- the end result, I think it's no -- no surprise, because I believe I've been through it. The recommendations to complete our pre-filed testimony are -- are at PUB-20. I don't know that anyone needs to go there, but in essence, as far as rates go, finalized rates at the level from September -- of September 1 on, not allow Hydro to retain the defer -- deferred amounts from before April 1st, 2012. And, as I said, that might be 20 to 25 million. Get on with doing a cost of service review and im -- and differential rates, because fairness is also related to between the classes.

And the only other thing I added is, in my understanding, the -- what was meant to be a -- a hearing based entirely on across-the-board rates has, in effect, been implemented with something a little bit different than that. Some total of about .2 percent, and -- and I'm suggesting that that be -- be adjusted to ensure that if -- if you're going to have a hearing that's based on across-the-board adjustments, that it's -- it's appropriate to make sure that each class is treated the same and fairly.

If there's evidence of different classes paying different amounts then that's fine, but -- but that would be, you know, relatively small. At .2 percent of rate adjustments, it might be a -- it's -- it's a total of seven (7) or ten thousand dollars ($10,000) a year probably through, you know, a one (1) cent increase or something in -- in residential --

MR. RAYMOND LAFOND: You meant seven (7) or $10 million per year?

MR. PATRICK BOWMAN: No, I mean seven (7) or ten thousand (10,000). It's a -- that -- that -- the effect of that rate change that was implemented, and it was an Exhibit on this, was -- was that some classes received about a 2.3 percent, and some received about a 2.5 percent increase. And -- and it's not -- again, it's not a grievous difference, but -- but if you're going to deal with a regulated environment, you make decisions based on evidence, evidence justifying different rate increases between classes, needs to be based on evidence showing how their costs relate to their rates. And -- and that evidence hasn't been reviewed. It's not intended to be reviewed in this proceeding.

And so -- so I think the Board was quite -- quite wise in saying that this is a hearing that should be based on across-the-board. And -- and all I'm saying is that -- that that's -- that's a practical way to deal with things. But it should be implemented in full, as across-the-board, so -- which means that the revenues from each class should be -- should be changing by 2. -- 2.5 percent. And if that means changing customer charges versus energy charges, that's a question of rate design within a class.

But across the classes, it's -- it's not appropriate, I don't -- I would submit, to do differential rate changes without -- without evidence of -- of a justified cost of service study.

MR. ANTOINE HACAULT: The Board may recall, and I don't know if I have the numbers exactly, but when I was asking questions of Mr. Wiens, I had tried to determined and -- because they had identified there was about seven hundred thousand dollars ($700,000) short from the residentials, and -- and I had asked him to do the number for the industrials, and it was about half a million dollars difference.

So if the same philosophy had been applied to the industrials, the industrials would have paid about five hundred thousand dollars ($500,000) less. And my -- the reason for that questioning was that that continues to be in the rate base going forward. So that's what Mr. Bowman is com -- commenting about.

MR. PATRICK BOWMAN: And -- and I'm not voicing a strong view as to whether its reduction of five hundred thousand (500,000), which is quite small to industrials, or an increase of seven hundred thousand (700,000) to residentials and -- and others, or -- or whether it's some combination of the two (2). I'm -- I'm just saying the -- the premiss for across-the-board rates works at a class level and -- and the overall class revenues. And -- and if you're going to have a hearing premised on -- on across-the-board, and

I'm not getting into different impacts on customers, I would say whether it's here or elsewhere, you'd -- you'd want to ensure that -- that you were achieving that end result.

THE CHAIRPERSON: Mr. Bowman, I -- just a follow-up question to -- to the document we just examined. Did you calculate the impact of what you're recommending on the other ratios that are cited by Manitoba Hydro as being key ratio, namely, the interest coverage ratio and the capital coverage ratio?

MR. PATRICK BOWMAN: No. I -- I could, but I -- I didn't, no.

MR. ANTOINE HACAULT: We could certainly do that for the Board.

THE CHAIRPERSON: Would Manitoba Hydro have any objection if we...?

MS. PATTI RAMAGE: No, I don't think we would.

THE CHAIRPERSON: Would it take you a while to prepare that?

MR. PATRICK BOWMAN: No. I could have it by tomorrow morning.

THE CHAIRPERSON: I think -- I think that would be useful for the Board. Thank you very much.

(BRIEF PAUSE)

MR. ANTOINE HACAULT: We're undertaking to provide to this Board the further details, with respect to page 2 of 6 in MIPUG -- or PUB/MIPUG-1-11 revised for IFF12, with respect to other key metrics, such as the interest coverage ratio. And the...

--- UNDERTAKING NO. 95: Mr. Bowman to provide further details with respect to page 2 of 6 in PUB/MIPUG-1-11 revised for IFF12, with respect to other key metrics, such as the interest coverage ratio

CONTINUED BY MR. ANTOINE HACAULT:

MR. ANTOINE HACAULT: The last point. Mr. Bowman was referring you to MIPUG's response to the Public Utility Board Interrogatory 13. And that one was -- was not revised, but is just to explain the table that's found at page 2 of 3 in that particular response. So that's PUB/MIPUG Interrogatory 13.

And you produced a table in that document. Could you please obtain the source of that table and provide comments with respect to that table.

MR. PATRICK BOWMAN: Yes. The question that was posed to us by the Board was: Provide comparative staffing levels for BC Hydro, and staffing levels per gigawatt hour, which presumably is a metric that the Board wanted to look at. They're referencing our -- our evidence at pages 4 -- 4 to 47, where we said Manitoba Hydro staffing has continued to grow and its O&Ms continue to grow.

And it struck me that the -- the framework there was quite a bit different than what had just happened in BC and -- and that soon -- we were -- Quebec, where a Public Utilities Board can review a utility, but it becomes very hard to get very deep into the bowels. And so their reviews will have a tendency to be very much based on incremental changes, and percent year-over-year, and those type of things.

And instead, in BC they -- on top of a public utility board process, for a regulated utility they commissioned a committee of deputy ministers who -- who did the review of BC Hydro and -- and came back and said when -- when you get beyond incremental and you actually get into the bowels, they concluded that they could -- could identify some savings.

And so the Board -- we were referencing

that. The Board asked us to show what the staffing levels were. And we indicated we had some data to do that, which is in the tables and text, but I know how much Mr. Hacault prefers graphs. So I believe we would jump to the second page.

And on the second page is a graph that we didn't produce. This is -- we were asked to compare per gigawatt hour. We didn't have the data to be able to do that. But, conveniently, this graph had recently come out of that same BC review, so we -- we published it here. I -- I can't attest to the calculations.

But -- but they provided this graph on a -- on a basis that you're trying to do gigawatt hours produced per FTE. So gigawatt hours would be the -- the numerator and full-time equivalents would be the denominator. And, as a result, their -- their assertion would be lower is worse. So, you know, lower means less gigawatt hours produced for every employee.

It's -- and -- and you can debate the metric, but their evidence here was -- BC Hydro done two (2) different ways. One (1) with the ex-Centra employees included, which I can explain if you like. One (1) without them. And then it compares to Hydro Quebec and Manitoba Hydro and -- and the -- for people who like graphs, I take it the graph sort of speaks for itself, it shows Manitoba Hydro where it does and -- and in -- relatively flat, but with a somewhat downward direction.

MR. ANTOINE HACAULT: And what's your understanding of the recommendation that was made to BC Hydro with respect to the reduction of its staffing?

MR. PATRICK BOWMAN: BC Hydro was recommended to review its staffing and reduce its staffing levels. I've -- I've -- as I've said, I've primarily gotten that information from reading the report. I've only talked to limited people about it, and I wasn't involved in the review. But I -- I am sceptical that this graph was a substantial part of the basis for that decision. I would think that decision comes from a whole bunch of other evidence.

I think this graph is -- is the kind of graphs that people have a tendency to produce to want to benchmark. And -- and I -- I'm sort of sceptical that it tells you very much in comparison between utilities. I don't think one (1) utility being higher on the graph and another being lower is -- is all that insightful, because their operations are -- are dramatically different, including the services they provide.

But -- but I do think it's possible

trends on this graph could be -- could be insightful. And -- and I think that's probably the key evidence that their -- that their committee was looking at, that Hydro Quebec was generally flat, Manitoba Hydro was generally decreasing in performance, and BC Hydro was dramatically decreasing in its -- in its performance and its output related to its employees, so.

MR. ANTOINE HACAULT: Thank you. Subject to any questions that this Board has of -- and it will continue to have them obviously during the cross-examinations, this completes the direct testimony of Mr. Bowman. And we thank the Board.

THE CHAIRPERSON: I have some questions that I would like to ask. In relation to the recommendations you have just made to this panel, Mr. Bowman, what is the impact to Manitoba Hydro's cash flow if we go ahead with your recommendations?

MR. PATRICK BOWMAN: Well, most -- most of the recommendations are non-cash. But the impact to the cash flow is -- is exactly the thing that we'll be preparing overnight to bring you back the targets and -- and perhaps it's your call, but perhaps it would be better to speak with that in the morning with the figures in front of us.

Is that -- if that's acceptable?

THE CHAIRPERSON: Now, in respect of the net income that would show up on the financial statements of Manitoba Hydro, do you have a sense of what that impact would be if we follow through with your recommendations? Specifically, I'm thinking of -- beyond the impact on revenues, I'm thinking of what happens to the reported net income from Mani -- from Manitoba Hydro as a result of the implementation of your recommendations.

Specifically, I'm thinking of the earlier adoption and net salvage, if -- if Manitoba Hydro was to adopt that as part of their financial statements, would you know if they would have to qualify their financial statements or not?

MR. PATRICK BOWMAN: I've been directly involved in -- in one (1) utility who changed its net salvage policies on the basis of a recommendation utility board, and I've been involved in one (1) who changed their net salvage accruals on their own basis, and I'm generally aware of BC Hydro's, which was the one (1) that set a lot of this off, who -- who tried to go one (1) direction and the utility board directed to go another. And, to my knowledge, none of them were qualified.

BC Hydro's -- sought to do exactly what

Mr. Warden set out, which was to say, I'm going to change my policy and, as a result of changing my policy, I'm going to recalculate my accumulated depreciation, and I'm going to take that portion that was previously related to net salvage, and I'm going to report it as retained earnings. And they did propose that very adjustment.

Now, I -- to my knowledge, it never made it to an audited financial statement because it received significant opposition in a BCUC hearing, and it was rejected by the BCUC. They said: Go ahead and stop setting aside. We accept no salvage in your rates.

But for a utility that's regulated on a return-on-equity basis, taking a bunch of money that's been paid by customers to be set aside to take down assets, and all of a sudden calling that equity, investor's equity, in which the investor gets to earn a return, was -- was really quite offensive to that -- that forum and customers objected, and the Board ultimately agreed with the customers.

So they were -- they were made to keep that on the balance sheet as -- as a net salvage reserve. And even though nothing more is going towards it, nothing more is being put towards it, there's no more salvage in rates, it -- it was still reported as a -- as some form of regulatory liability. And I'm not really sure what's happened to it since then.

The others I'm aware of -- like I said, Yukon Energy was -- was directed to do the same thing BC had done, so they stopped accruing for net salvage, and their -- their policies now do not accrue for net salvage. There was no qualification on their statements, and they're -- they were audited by the Auditor General of Canada who can even be a little difficult on those points. But no qualification.

And the Northwest Territories had a change in policy, that they still have a net salvage account. They still charge net salvage against that balance, but they have stopped accruing to that balance. And -- and again, they have not had a qualified statement, although, I'm not positive they've actually had statements since that decision -- well, wince that proposal was made and that policy change was made. It only -- I believe it was yesterday the Board finally issued its decision in that case, so.

THE CHAIRPERSON: So in terms of the rating agencies, the organizations that -- that have adopted a different methodology for rate setting than what appears in audited financial statements, now they

-- they submit what to the -- to the bond rating agencies for -- for an exposition of their financial results? Do they submit their rate setting data, or do they submit the audited financial statements to the bond rating agency?

MR PATRICK BOWMAN: Just to clarify, are we speaking in respect of net salvage now or -- or all matters generally?

THE CHAIRPERSON: All matters in general.

MR. PATRICK BOWMAN: Well, certainly, any one of those that I've dealt with, when they've had to -- had to submit information to lenders, for sure, there -- clearly is included their -- their financials. But it's -- it's usually included a fair bit of information about their -- their regulator, and the -- the actions of their regulator, and the decisions of their regulator. Those -- those have certainly been reviewed.

Part of the -- part of my job in some of those cases has been to -- to participate in discussions with auditors about what Board decisions mean. And so auditors look at that, lenders look at that, bond rating agencies, I presume, look at that; I've never worked at a bond rating agency.

And -- and so, from that perspective, I believe both parts of information are -- are relevant. As -- as I noted, certainly, the bond rating reports will make a point of referencing whether a utility is in a jurisdiction where a regulator is -- is reliable, and is accommodating of -- of rate increases when -- when justified, and -- and is expected to -- to continue in a regulated forum. Like if there's a change in the legislation being debated, that -- that will be noted.

But I guess to the -- to the greatest extent, people would -- people would make an effort to -- to align these two (2) things as much as possible where -- where that exists. And so something like net salvage, I would expect there's no requirement under GAAP for -- for Hydro to maintain net salvage. I would think if this Board said, We're not comfortable with your rates including net salvage at this time, my -- my expectation is Hydro would have to think long and hard whether it really wanted to -- to report or to fight to try to report some form of liability, and if it even could; that this Board is saying, you know, We don't -- we don't think that's -- that's something you need to include in your rates.

MR. RAYMOND LAFOND: Just a follow-up

subsidiary question of the last one by the Chair. In ref -- in reference to -- to rating agencies, et cetera, of course, they would look at the utility, namely, Manitoba Hydro, but they would look at the whole province. So when you consider BC Hydro, for instance, and compare it to Manitoba in terms -- and these -- in terms of debt amount, what would that debt in Manitoba -- in BC Hydro, for instance, be, in proportion to the BC GDP or -- or the total debt of the province as opposed to Manitoba?

And the point is because with the current debt levels and the projected debt levels with new generation, it becomes a very important proportion of the total Manitoba debt, and a very important proportion of Manitoba's gross product.

Now, when you look at other provinces in that regards, you have to take that into consideration. Have you done that?

MR. PATRICK BOWMAN: I -- I don't have any data on BC and the rel -- relative levels of BC Hydro's debt to the BC government debt. I -- I would say you've hit the nail on the head in terms of a rating agency taking a look at Manitoba Hydro and what matters in Manitoba Hydro.

I would submit that $20 million to

refund a 1 percent rate increase or -- over two (2) years or -- or even a $60 million change to its net salvage policy where -- where this Board is saying, That's fine, we're -- we're comfortable, you have a policy of rolling those costs into new construction, I think those would be blips on the radar. People are looking at $10 billion projects, not -- not 60 million in salvage, would be my submission.

But I make one (1) more comment, which is it -- we -- we put a little bit at the front of our -- of our pre-filed testimony on the challenge of this GRA, and I -- I haven't necessarily hit on it too much. But this is an extremely difficult GRA to review, in a sense, because the IFF is just dominated by the future levels of development. It's -- it overwhelms anything else going on in the IFF, in a big way. And there are huge costs associated with that, there's huge variables, there's major uncertainty, and -- and it's not this Board's jurisdiction to make decisions on that and it's not in the test years. And Hydro will probably argue the same thing: It's not in the test years, so let's all not, you know, fuss ourselves with that right now. We'll get to that in due time.

And I think that's -- that's a real challenge here, because we don't have what I would call a baseline long-term scenario for reviewing Manitoba Hydro. And when I've been involved in these types of things in other places or -- or if you think logically about how you would want to look at the picture, your -- would fundamentally want to start with some form of baseline that says: Wait a minute, before I go chasing great opportunities, how do I -- how am -- I take care of the home front? How am I -- how am I supplying my load at the, you know, reasonable level of capital investment? When do I need to build something and what's going to make the most sense to build absent all of these great opportunities? Like, what is my -- what is my core requirements?

And -- and certainly in other places where I've worked that would be your IFF. That would be your -- your core presentation. Then you can move on to say, But given that's my future, absent chasing opportunities, now I'm going to talk about the opportunities. And that may change things relatively dramatically. And it may lead to higher rates and it may lead to lower rates and it may lead to a bunch of borrowing. But you could -- if you want to be dealing with rates, you can sort of pull that page out and say, I want to understand that, but I'm -- I need to -- I need to understand the baseline.

We're -- we're going to get to that eventually, but I don't want to be -- I don't want this to turn into doing an NFAAT on Hydro every two (2) years. And -- and without the information and without the -- the contracts and without the -- the capital cost estimates because they keep going up. And without an opportunity to talk to the engineers who are designing the thing, or how you're going to contract it.

Like, there's so much information that is unavailable to us here today. And -- and probably, in fairness, not even fully available to Hydro yet, to be able to make all of those decisions. And -- and the -- the unfortunate part for today is -- is despite the speculative nature, and I -- and I don't mean speculative as gambling. I mean -- I mean that -- just an inherent uncertainty associated with it, and inherent questions. It's the only IFF you have available to you.

And -- and I think that's -- that's unfortunate. And -- and I think it's a -- challenge for all of us. And it's one (1) of the reasons why you'll see in PUB-11, we -- we focus on five (5) years. Because it -- I -- I have no particular insight beyond the information filed here about -- about how the years beyond that will -- will unfold and there's nowhere near enough information here to -- to really assess that.

(BRIEF PAUSE)

THE CHAIRPERSON: I think that's all the questions the panel has for this particular witness. So thank you very much, Mr. Bowman. And we -- I don't think we have any additional matters, or do we? No.

We are going to be recessed -- I'm sorry, we're going to be adjourning tonight, and resuming our activities tomorrow morning at 9:30. So we'll see you tomorrow morning. Thank you everyone.

(WITNESS RETIRES)

--- Upon adjourning at 5:11 p.m.

Certified Correct,

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Cheryl Lavigne, Ms.

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