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

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Pages 4613 to 4892

APPEARANCES

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Anita Southall (np)	)
Patti Ramage	)Manitoba Hydro
Odette Fernandes	)
Byron Williams	)CAC (Manitoba)
William Gange	)GAC
Peter Miller (np)	)
Antoine Hacault	)MIPUG
Michael Anderson (np)	)MKO
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LIST OF EXHIBITS

LIST OF UNDERTAKINGS

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

THE CHAIRPERSON: Good morning. I believe we're ready to resume the proceedings. I think we have some documents to acknowledge. Ms. Ramage...?

MS. PATTI RAMAGE: Yes. Thank you and good morning. We have a number of undertakings to review -- or to file this morning, and I'll just run through them quickly. The first is Undertaking number 5. And that's dealing with whether or not non-controlling in --- non-controlling interest has an impact in IFF12. And that we suggest be marked at Manitoba Hydro Exhibit 89.

--- EXHIBIT NO. MH-89: Response to Undertaking 5

MS. PATTI RAMAGE: The next is Undertaking number 45. And that deals with the additional other amortization expenses in the two (2) test years or -- in IFF11-2 and IFF12. And we suggest Undertaking 45 be marked as Manitoba Hydro Exhibit 90.

--- EXHIBIT NO. MH-90: Response to Undertaking 45

MS. PATTI RAMAGE: Manitoba Hydro

Undertaking number 7, providing an explanation of the escalation in construction costs for Wuskwatim, we suggest be marked as Exhibit 91.

--- EXHIBIT NO. MH-91: Response to Undertaking 7

MS. PATTI RAMAGE: The next is undertaking 49. And that's dealing with the provisions for repayment of debt associated with WPLP. That, we suggest be marked as Exhibit 92.

--- EXHIBIT NO. MH-92: Response to Undertaking 49

MS. PATTI RAMAGE: Manitoba Hydro Undertaking number 50 is an explanation regarding partners' capital on the WPLP balance sheet. That, we suggest be Manitoba Hydro Exhibit 93.

--- EXHIBIT NO. MH-93: Response to Undertaking 50

MS. PATTI RAMAGE: The next one by my count is Undertaking number 62. And that's a qualitative description of how generation marginal value is determined. That will become Manitoba Hydro Exhibit 94.

--- EXHIBIT NO. MH-94: Response to Undertaking 62

MS. PATTI RAMAGE: Manitoba Hydro Undertaking number 67 is data with respect to whether there's been a statistically significant relationship between general service customers' demand and price changes. That, we suggest be Exhibit number 95. That's a four (4) page undertaking.

--- EXHIBIT NO. MH-95: Response to Undertaking 67

MS. PATTI RAMAGE: The next is Manitoba Hydro Undertaking number 70. And that's regarding whether there's been any further price reports on price elasticity. And Undertaking number 70 we suggest be marked as Exhibit 96.

--- EXHIBIT NO. MH-96: Response to Undertaking 70

MS. PATTI RAMAGE: Then next is Undertaking 81. And that is dealing with when enterprise assess -- asset management program is expected to be in place and details regarding the generation south and north milestone reference. And that, we suggest be Manitoba Hydro Exhibit 97.

--- EXHIBIT NO. MH-97: Response to Undertaking 81

MS. PATTI RAMAGE: Then we have Undertaking 82. And that's a question regarding whether the transmission asset condition assessment report can be filed in the proceeding. That becomes Manitoba Hydro Exhibit 98.

--- EXHIBIT NO. MH-98: Response to Undertaking 82

MS. PATTI RAMAGE: And then finally is Undertaking 87, and that was the question regarding EFTs associated with the distribution asset report. And that becomes Manitoba Hydro Exhibit Number 99.

--- EXHIBIT NO. MH-99: Response to Undertaking 87

MS. PATTI RAMAGE: And that is all of the materials we have to file this morning.

(BRIEF PAUSE)

THE CHAIRPERSON: Thank you very much for those documents.

Mr. Hacault, good morning. Bonjour.

MANITOBA HYDRO PANEL 2 - REVENUE REQUIREMENT, RESUMED:

VINCE WARDEN, Resumed

DARREN RAINKIE, Resumed

TERRY MILES, Resumed

DAVID CORMIE, Resumed

MANFRED SCHULZ, Resumed

MR. ANTOINE HACAULT: Good morning, Mr. Chairman, members of the Board, all present. Before the hearing, I understood there was some pressure because there's some team playing against Boston this afternoon, so I should finish all of my cross-examination this morning. Or failing which, every three-quarters (3/4s) of an hour or every significant time period where there's something happening, colleagues from across the way may be updating us.

CONTINUED CROSS-EXAMINATION BY MR. ANTOINE HACAULT:

MR. ANTOINE HACAULT: In any event, we had left off on Friday where Mr. Schulz had explained how Manitoba Hydro had looked at the interest rate variance in the IFF sensitivity analysis. So we were at page 228 of our book of documents. Page 228 of our book of documents. And I had indicated that I would continue to look at certain of the sensitivity analysis items to see how they had progressed from our last hearing. So I direct everybody's attention to that. And in particular, first I'll be dealing with the high domestic load growth line.

(BRIEF PAUSE)

MR. ANTOINE HACAULT: It's Tab 14A, page 228.

(BRIEF PAUSE)

MR. ANTOINE HACAULT: I believe everybody has it now. My questions with respect to this line item, high domestic load growth, relate specifically to DSM programs as it relates to that growth.

Does this line item include a reduction in load with respect to DSM? I don't know who's best to answer that.

(BRIEF PAUSE)

MR. VINCE WARDEN: Mr. Hacault, for purposes of this sensitivity analysis, the DSM would assume to remain constant in -- in all scenarios. So DSM would not be a factor in -- in the impact on retained earnings as a result of high domestic load growth.

MR. ANTOINE HACAULT: Thank you. The next thing is to understand what is included in the assumption or description, "high domestic load growth."

MR. DARREN RAINKIE: Mr. Hacault, there is a description of that on page 17 of IFF12. If the Board wants to pull that out, it might be of some assistance just to -- to take us through. So as I understand it -- or maybe I'll give the Board a second just to locate...

MR. ANTOINE HACAULT: I believe if we just turn to the reverse side, we have a copy of -- of that page. It's page 229 of our book of documents.

Or do we need to look at more than that, Mr. Rainkie?

MR. DARREN RAINKIE: Yeah, there is something on the next page, but I think your que -- depending where your question is going, that it answers the first question anyway, that the base case, if you like, the IFF, has -- has prepared on the bases of 50 percent -- percentile load forecast, and the high load forecast is the 90 percentile of the load forecast.

MR. ANTOINE HACAULT: With respect to DSM, am I correct in understanding that there would be two (2) impacts with respect to DSM? We had discussed that somewhat. The first is there has to be spending on DSM programs, and there would be a corresponding reduction in revenue as a result of that.

That's the first step, correct?

MR. DARREN RAINKIE: Yes, in general, as Mr. Warden indicated. This scenario doesn't, of course, change any of the DSM assumptions.

MR. ANTOINE HACAULT: And in addition to spending on DSM, the second step is to the extension that there's less energy purchased as a result of a DSM program. It actually has a reduction in the revenue side also, correct?

So that if you spend three (3) cents on a DSM program, you spend DSM -- three (3) cents on the DSM program. And if it's a residential customer that's reducing his load, you also get seven (7) cents less revenue for every kilowatt that's saved under the program.

MR. DARREN RAINKIE: Yes, I think that logically follows. If they don't use the energy, they don't pay for it.

MR. ANTOINE HACAULT: And that's why we

had some discussion before my cross-examination as to Manitoba Hydro wanting to analyze whether or not you're actually -- it's economically feasible to spend certain amounts on DSM.

If you would spend, for example, seven (7) cents on a DSM program and that would result in seven (7) cents of loss of revenue, you're being hit both on the expense side and a revenue side, correct?

(BRIEF PAUSE)

MR. DARREN RAINKIE: Mr. Hacault, I -- I think that's -- that's correct. And I'll take the next question, and we can continue on.

MR. ANTOINE HACAULT: Now --

MR. VINCE WARDEN: Of course -- of course, just -- just to follow up very quickly on that, that ignores the energy that's freed up for export.

MR. ANTOINE HACAULT: Understood. Thank you very much for that clarification. And in the last hearing we had the IFF09-1 and IFF10-2. I'm on page 228. That's Tab 14A.

And if we look both on the seven (7) year IFF sensitivity analysis and the eleven (11) year sensitivity analysis, previously high domestic load growth resulted in a negative variance, correct? That's in IFF10-2 and IFF09-1.

MR. DARREN RAINKIE: That's right, a reduction to retained earnings in the scenario.

MR. ANTOINE HACAULT: And that same concern now is in -- resulting in a positive variance. So if there's higher domestic load, it doesn't have a negative impact on revenues.

It actually now has a positive impact on revenues, correct?

MR. DARREN RAINKIE: Yes, it's a -- when we move to the IFF11 -- 12 column, it's actually an increase in retained earnings.

MR. ANTOINE HACAULT: And why is that?

MR. DARREN RAINKIE: Simply in this scenario, as it's constructed, the -- you're getting more revenue from a domestic sale than you are from an export sale. And I think that's why I was turning the Board to IFF12, because on page 18 of it, it explains -- explains that phenomena.

MR. ANTOINE HACAULT: Thank you. So while -- in the previous hearing, and that was just a year and something ago, the Board looked at this issue of high domestic load growth as a negative factor for which it might be appropriate to put some reserves, or at least consider reserves.

We're at a stage now in this hearing where on that particular item, being high domestic load growth, we don't have to be concerned, putting reserves aside for that particular line item, correct?

(BRIEF PAUSE)

MR. DARREN RAINKIE: Certainly. It's an -- it's an increase in retained earnings, not a decrease. So it's less of a concern. But when you look at the magnitude of it, I don't -- I'm not sure it's -- it's much one way or another, Mr. Hacault. There's much more variability in our forecasts in our water flows and revenues than that. But directionally, flipping from a negative to a positive would be less of a concern.

MR. ANTOINE HACAULT: So at least for this particular line item you don't consider -- in year 7 under IFF12 we've got 102 million.

That's not a material number when we consider -- consider sensitivity?

MR. DARREN RAINKIE: Not in relation to things like drought and loss of infrastructure, et cetera, which are some of our major risks.

MR. ANTOINE HACAULT: Thank you. And the same answer would be with respect to year 11 where we've got 229 million under IFF12 as a positive number?

In your view, that's not a material number?

MR. DARREN RAINKIE: I think -- yeah, I think the same -- same explanation holds. It's not that $200 million is not important to us. I'm just saying in the larger context of some of our other risks, it's not one of the larger ones.

MR. ANTOINE HACAULT: But it is one that now can be removed directionally as a concern as a result of your analysis under IFF12, correct?

MR. DARREN RAINKIE: I'm not sure what "removed" means. I'm not sure we had a specific reserve for that item in the first place, Mr. Hacault. But I suppose the calculation tells us it's less of a concern now than it was before. But markets change, and -- and, you know, it could flip the other way at some point in the future.

MR. ANTOINE HACAULT: And as you reminded this Board on Friday, I believe, Mr. Rainkie, we're concerned with the years in question, and the forecasts are just that. We shouldn't be setting rates just on the forecasts, correct?

MR. DARREN RAINKIE: Certainly. The -- we -- as we talked on Friday, the Board likes to understand the context of our forecasts, but we're here to request rate increases for the test years, and that should be the focus of the hearing.

MR. VINCE WARDEN: I might just add, Mr. Hacault, that the purpose of Table 7.1 in the integrated financial forecast is to do some sensitivity analysis on some of the variables. And I do agree that high domestic load growth is not as much of a concern as it was because of what -- it's a -- it's a function of what's happened in the export market. So therefore, high domestic load growth does not detract from what we're seeing in the export market these days.

The converse though, low domestic load growth, would -- probably -- should probably have been listed in this sensitivity analysis, because now it's flipped the other way. If we have low domestic load growth, then of course we -- we do have a risk there that isn't recognized here as perhaps it should be.

MR. RAYMOND LAFOND: If I can intervene. I have to tell you that the way I read that table was that the high domestic load growth had to do strictly with the domestic load growth and was not tied at all in -- with export prices, which are a few lines lower.

So the way I had read that was the negative figures in '09/'10 was because of a decreasing demand due to the recession, and now we're expecting things to pick up. So I -- I viewed this as strictly a load growth factor. Right now, we're discussing export prices at the same time.

I thought this was all in a few lines lower on that table?

MR. DARREN RAINKIE: No, sir, this -- this is -- this is just simply -- if we flip back to page 17 for a minute, it's saying what would happen if there was a higher load forecast up to the 90th percentile of the forecast. And then it lists below that some of the things that -- that could contribute to such a scenario.

And so we're simply varying the volume -- the volume in this particular sensitivity analysis and using the same prices that are inherent in the rest of the IFF, whether that be domestic rates or export rates. So it's a -- it's a volume scenario, not a pricing scenario, if that makes sense.

MR. RAYMOND LAFOND: Exactly. But we were talking about this being influenced by export prices, which I don't think is the case. This is strictly volume.

MR. DARREN RAINKIE: Well, if -- if we have higher domestic sales, then in that scenario we would have less -- less volumes to sell in the export market. So that's where the pricing comes in, as we're varying the -- the volume and then taking those different volumes, domestically and export-wise, at the prices that are inherent in the IFF.

So it really is a volume change, but we're applying a for -- forecast prices which are different, domestically and export-wise, to that -- those changed volumes. So it is a volume -- it's intended to be a volume sensitivity, not a price sensitivity. But, of course, we have to price that -- those changes in the volumes at something, and that's where the price comes in.

MR. RAYMOND LAFOND: And of course, that's assuming we can export all new generation with Wuskwatim, for instance, and high water flows?

(BRIEF PAUSE)

MR. DARREN RAINKIE: Well, in this situation, if domestic load is increasing, we would be exporting less than the assumption in our IFF12. So I think it might go the other way than what you're thinking, if I'm understanding your question correctly.

CONTINUED BY MR. ANTOINE HACAULT:

MR. ANTOINE HACAULT: Mr. Rainkie, what's the IFF based -- is it based on high flow or is it based on average flows?

MR. DARREN RAINKIE: After the third year of the forecast, it flips to the average flow. So the first year is the expected. The second year is the median. And third year and further out is on the -- based on average flows.

MR. ANTOINE HACAULT: Now, my numbers may not be exactly correct. But, say, if the domestic load gives five (5) cents a kilowatt to Manitoba Hydro as revenues, and on the export market -- I'll just choose a number -- three (3) cents per kilowatt, am I correct in understanding what you're saying is that we look at average flows, and if the load grows domestically, we'll be selling more of that average flow load at five (5) cents instead of three (3) cents?

And that's why we get a positive number, because, right now, the domestic prices for that same energy are higher than the export prices?

MR. DARREN RAINKIE: Yes, higher than the opportunity export prices in your scenario.

(BRIEF PAUSE)

MR. ANTOINE HACAULT: Moving now down to low export prices. If we look down that line, last hearing, that was the IFF09-1 and IFF10-12, under both the seven (7) year scenario and the eleven (11) year scenario, directionally there's less of a negative impact with respect to low export prices, correct?

(BRIEF PAUSE)

MR. DARREN RAINKIE: Ye -- yes, that -- that's correct, the two sixty (2.60) -- the three sixty-three (363) and the two sixty-eight (2.68) are higher than the one sixty (1.60) and the one eighty-four (1.84) under IFF12 and IFF11-2.

MR. ANTOINE HACAULT: And you were taking numbers for the seven (7) year projection. If we go to the eleven (11) year projection under IFF10-2, it was a negative 624 million under IFF10-2 and a negative 920 million under IFF09-1, correct?

MR. DARREN RAINKIE: That's correct.

MR. ANTOINE HACAULT: And those numbers have gone down so that if we look directionally from IFF09, the eleven (11) year forecast has gone down from 920 million to 420 million. So we've got nearly half a billion dollars less concern now than we did a couple years ago.

MR. DARREN RAINKIE: Yes, based on the -- on the export price forecasts -- the low export price forecast assumptions.

MR. VINCE WARDEN: Just to add to that, I wouldn't say less concern. It's only, of course, because the export prices have dropped the way there are they that they --- they're just not -- not that much room for them to drop any further. That -- that doesn't mean we're not concerned; we're -- we are definitely concerned about export prices.

MR. ANTOINE HACAULT: I understand you want them to go up, but you've as -- your answer was helpful, Mr. Warden, that in Manitoba Hydro's view, they're about as low as they're going to get.

And your professional opinions, collectively, is that we're going to see them rise in the next couple years, correct?

MR. VINCE WARDEN: Well, no, I think what we're -- we're demonstrating here -- or, what is being demonstrated here is there is, in fact, more a downside to export prices. And in IFF12, for the seven (7) years, we're looking at the downside being $160 million, and eleven (11) years, $420 million. So, yeah, there's still -- there's still room for them to go down.

MR. ANTOINE HACAULT: And please define "low export prices"? I haven't found that in the IFF. What's the variance?

MR. TERRY MILES: I'll take that one, Mr. Hacault. In -- in the -- I was trying to find the exact description that we've provided under IRs.

But when we ask our export price forecast consultants to put together forecasts for us, we ask them to provide a forecast of their best estimate or their perspective on the -- the best estimate of the trend of export prices into the future.

We also ask them to provide their -- their forecast or their perspective on the forecast of export prices under a sustained low pricing scenario. And so they'll use prices for -- you know, lower gas prices, lower fuel costs. There might be lower operating costs. They might have load growth implications and that. But whatever they believe, in terms of going forward or factors that might provide a sustained low-pricing scenario. We also ask them to do the same thing on the high price side of things.

In doing so, what we end up with then is we end up with a -- an expected forecast or the consensus forecast that gets used for the -- the base forecast in the IFF and, as well, the forecast of the ranges that we see here on the tables for the low export price and the high export price. Those forecasts we then run through our firm models to come up with the -- the revenue projections over the IFF period. And what you're seeing here are those -- the differences between the high and the low.

And what we observed from the last four (4) IFFs is that the range -- so the export price forecast, the consensus forecast, has been declining over the last number of years. But as well, the range associated with that, the lows and the highs, have been declining as well. So we're seeing less of a range of the futures.

And that's what you're seeing in the change or the ded -- or the reduction, if you will, from IFF -- say, IFF09 in the seven (7) year projection from -- and under the low export prices from 363 million decline, or cumulative decline, to $160 million is just from the base. So we're seeing less of a range in potential decline.

MR. ANTOINE HACAULT: Thank you for the general explanation. And it may be I just haven't found it because there's a lot of material, but do we actually have the numbers that are assumed by Manitoba Hydro being the low-end price and the high-end price for IFF12? Is that in the materials somewhere? If not, could you undertake to provide what those assumptions were as it relates to the IFF?

So IFF, you would have one (1) number, and then the variance you would be picking different numbers. And I'd like to have the different numbers associated with the sensitivity analysis for low export and high export prices.

Would that be something you could do?

MR. TERRY MILES: No, I think, much -- much like our information on a price forecast we consider those ranges as well, the price forecasts that come from there, to be commercially sensitive, as well as proprietary on the side of the forecasters. So we've indicated we're not prepared to provide those for those reasons, yes.

MR. ANTOINE HACAULT: Okay. Thank you for that. I don't -- I'm not looking to get commercially sensitive information.

So is there a team at Manitoba Hydro that looks at these forecasts and comes to a professional judgment as to what it considers to be the low on one (1) hand and the high on the other?

MR. TERRY MILES: I'm sorry, Mr. Hacault. Could you repeat the question, please?

MR. ANTOINE HACAULT: I'm trying to get some understanding of the due diligence done by the Company. You've indicated you get this information, you look at it. If I have, just thinking, like, four (4) forecasts and one (1) of them has got a real spike down compared to the other three (3), how does Manitoba Hydro decide what the low number is as between the low numbers that were provided to it by way of forecast?

Is there some kind of process? What's the reasoning?

MR. TERRY MILES: Our process is much like the overall forecasting process. We -- we've described it for the -- for the consensus forecast for what is used as the base for the IFF. Similarly, for the high and low, we use the same -- same perspective. It ends up being a consensus, if you will, of the high and low side of it.

We spend a lot of time discussing the forecast information that does come from the consultants that we have, understanding their methodologies that they use, their perspectives behind it. We do not limit the -- the forecasters to -- limit the information they use or the factors that they use. We try to get their different perspective. And different forecasters will have different perspectives of the future, low and high.

Depending on the information that we get, we've indicated that if we're able to understand why the forecasters are doing what they're doing and we have no reason to -- as I think it was explained earlier, a forecast is a forecast. We have no reason to, in general, dispute why the forecasters are choosing what they're choosing, and we will use them equally and weight them equally.

If we believe there is a reason to not include it for some reason or other, whether, you know, the explanations they provided don't seem to make sense from -- from a market perspective that we have, we may choose not to include that. The information that we have in -- in the forecasts that are here, though, I believe that we've included the information from all the forecasters that we have -- have used.

MR. ANTOINE HACAULT: We've gone through a lot here, but I was trying to get some information that might be useful for the Board as it may be a range of -- it's too commercially sensitive. But is there some information that you can provide to this Board as to what the assumption is when you run a low export price in the IFFs for sensitivity? Is there something you can provide to this Board that gives it some idea of whether or not a number seems to be a reasonable number or what the number -- you know?

I don't know what low export prices is. Is -- is it -- is it 1 cent a kilowatt? Is it 2 cents a kilowatt? Is it half a cent a kilowatt?

(BRIEF PAUSE)

MR. TERRY MILES: I think, Mr. Hacault, I've already indicated. I don't think we can provide -- we can't provide that level of specifics around the difference from that to the high -- high to low, in terms of the -- the difference upwards or downwards you're indicating in a -- in a dollar per kilowatt or dollar per megawatt basis.

At this time, we -- we've discussed it, and we still believe that that provide -- that that information is -- is commercially sensitive and does provide -- providing that information would give indications to -- to our customers and let out about the range that we're considering high and low. And that is important to us, because it would provide information on -- on maybe the upside of where market prices may go, and the downside. And I think that might affect some of the negotiations that we have with our customers if that information was out there.

Our customers are very savvy, as well, in the export market. And our export forecast customers, as well, know what their forecasts are. And giving that information out can provide information relative to other forecasters on the market place. So for those two (2) reasons, I don't believe we can provide that at this time.

MR. ANTOINE HACAULT: Thank you. I'll see whether I can get at the result in a different way.

Is there some kind of definition, without knowing the exact prices? When I ask somebody, Please give me your estimate of the low on export prices, is there some kind of definition given to the forecasters?

MR. TERRY MILES: You know, I will -- we'll dig up the IR that we provided. And I think we provide the description that we provide to the export price forecasters -- or the instructions, anyways, that we've asked our export price forecasters to use when they prepare their low and their high forecast. I'll -- I'll dig that IR up, and I'll -- and I'll read it back into the record for you.

MR. ANTOINE HACAULT: To the extent that the IR doesn't provide that answer, do you undertake to provide the answer as to what the definition is, instructionally-wise, to your forecasters?

MR. TERRY MILES: Can we just wait and see when I read the IR back in and provide that reference and see if there's any need to update on that? Is that fair?

MR. ANTOINE HACAULT: Sure.

MR. TERRY MILES: Okay.

(BRIEF PAUSE)

MR. ANTOINE HACAULT: I'll move next to -- on page 228 the five (5) year drought starting in year 3. Here --

MR. RAYMOND LAFOND: Maybe, Mr. Hacault, before we go there, just for my clarification. If I look at page 87 of your annual report -- and that's not exports, but extraprovincial -- about middle of the page, "Electric system deliveries," in millions of kilowatt hours, extraprovincial, 10 million -- 10.344 million.

And -- and when we look at the total revenues of extraprovincial on your income statement earlier on in that same annual report, it would work out to an average of three point six (3.6) cents per kilowatt hour, correct? Or thereabouts, three and a half (3 1/2) to three point six (3.6) cents per kilowatt hour.

MR. VINCE WARDEN: Yes. Yes, that's correct.

MR. RAYMOND LAFOND: Okay. Thank you. Who said, "Yes"? Thank you.

CONTINUED BY MR. ANTOINE HACAULT:

MR. ANTOINE HACAULT: Now, turning to the five (5) year drought, could someone explain what that benchmark is, in terms of historical experience?

MR. TERRY MILES: Yeah. As we compute the impact of the -- of the five (5) year drought -- so the five (5) year drought period is the five (5) year drought centred around 1988/1989, the drought period. And we calculate what the variation from average revenue is in the five (5) years around that -- around that drought. And that then becomes the difference between what we see in the IFF and what we would see under those drought conditions.

The numbers that you're seeing on the table here then is the accumulated difference between the IFF revenues and then the decrease in revenues under the drought conditions, under the low-flow conditions. So it reflects a five (5) year chronological period of low flows in the 1988/1989 time frame.

MR. ANTOINE HACAULT: So, first, I just want to clarify. The five (5) year drought is a five (5) year drought which was the worst experienced, in terms of cyclical five (5) year time period, over the time that Manitoba Hydro has operated its system?

MR. TERRY MILES: It is, yes. There is a slightly -- I think a slightly worse drought in the 1940/'41 time frame. We've utilized the 19 -- the -- the one -- the more recent one just because of the hydrology and the experience there, in terms of the hydrologic records. I think we have a little bit more confidence in that hydrologic record at that time.

They're very -- they are similar, in terms of the -- the quantity. They're both -- they both are significant droughts. But we do use the chronological time stamp there as for five (5) years like that to occur, you know, following each other, there are certain hydrologic conditions that have to -- would have to occur at that time. So we believe that recurrence of those five (5) years in a row represent a pretty significant low-flow period, and that is what we've adopted for our -- for the IFF period, yes.

From our long-term planning perspective, when we look at drought flows, in terms of planning the system that's there, we do utilize the -- the slightly more -- the slightly lower drought in the 1940s when we design for our dependable conditions for our system.

MR. ANTOINE HACAULT: The second part I want to understand, because accounting's kind of a thing where you can have a whole bunch of results, depending on exactly how you define things. I understood your answer to be that it is the variance from the expected revenues over average flow, because it's after year 3.

Is that part -- that's where we start, correct?

MR. TERRY MILES: That -- that is where we start, yeah. And it's -- and average -- I've -- I've said this before. And -- and not to be a broken record in this one, but from the average flow perspective, we talk about average flows. I think when we talk about the -- the first -- the first test year that we have and we talked about -- or the second test year, actually, is the median flows in -- in the case.

From the longer-term perspective, it's not necessarily average flows. When we get to the third year, from -- to compute the revenues in -- in that year we run the -- it's now ninety-nine (99) flow cases for every particular load year that we have. And we get a range of revenues and a range of costs.

What happens is then the revenues in those particular years reflect the average of the revenues and the average of -- of the costs. So under an average flow case, if you picked an average flow year, I would expect you would have more revenue in that year, because you wouldn't have the thermal and import costs associated with it, much like in the median flow year.

However, when we do the average of all the cases that are there and every year beyond the third year, we do assume or there is the assumption that there will be some costs incurred for imports and thermal. And that's offset against the average of the revenues that you will get there.

So it's not an average flow year; it's

the average of all the flow years there. And it's -- it's a subtle difference, but it does make a difference, because it does assume, as we go out in time, that we are forecasting that we will have some import costs and some thermal costs out in time. So that's a subtle -- subtle difference.

MR. ANTOINE HACAULT: And that's what we see in the IFF. So if we see over the IFF that there's net revenues in each year, that's the baseline that we start at, is net revenues?

MR. TERRY MILES: That's correct.

MR. ANTOINE HACAULT: So this number is not what I would call a net loss. We haven't started in saying, We will incur net losses -- if I look under the seven (7) year scenario, IFF12 -- of $1.553 million. The -- there will be a loss, but it will be a decrease from the profit level that you've assumed, going downwards?

No, let -- I'll just put an example to that. If you've assumed $50 million of net profit, start from there, correct?

MR. TERRY MILES: Okay.

MR. ANTOINE HACAULT: And in a particular year, you think the impact of the drought is going to be 200 million, just to explain the concept.

Are you following me so far?

MR. TERRY MILES: Yes, I'm following you.

MR. ANTOINE HACAULT: What you're saying we start with the $50 million net profit and we go down 200 million, correct?

MR. TERRY MILES: That's correct.

MR. ANTOINE HACAULT: We don't start at zero and say that there's a $200 million net loss, correct?

MR. TERRY MILES: I believe that's correct.

MR. ANTOINE HACAULT: So that -- but I just thank you for that. So that when we see the $1.553 million, it's not a net loss. It will be a decrease in the expected revenues based on that formula that you've said that you look at each of the ninety-nine (99) years.

You come to an expected net revenue, and you're going to have a decrease in that net revenue of about $1.5 billion, correct?

MR. TERRY MILES: Yeah, that's correct. It's -- it's accumulated reduction in -- it would be the accumulated reduction in revenue under those drought flows. And that then would be a net difference off the IFF. That's correct.

MR. VINCE WARDEN: Mr. Hacault, just for clarification though, the -- as indicated in the heading on this table, it's an increase or a decrease to retained earnings. So net income has already been factored into the determination of retained earnings. So this is a -- this is the impact on re -- on Manitoba Hydro's retained earnings.

(BRIEF PAUSE)

MR. ANTOINE HACAULT: But again, it's the retain -- a decrease in the retained earnings as to where you would have expected to -- them to be, were it not for the drought, correct?

MR. VINCE WARDEN: Absolutely. But net income is already factored in to the determination of -- of -- of retained earnings.

MR. ANTOINE HACAULT: So if we see, in the IFF, retained earnings keep on increasing slightly in real terms, correct?

MR. VINCE WARDEN: Any time we have net income, retained earnings will increase in real terms, except for the special situation we have with IFRS where there is a -- a charge against retained earnings.

MR. ANTOINE HACAULT: Now, that IFRS quite tell you -- quite frankly, when I got into this, I said, Boy, it's amazing what we can do with accounting principles to change what net revenue and retained earnings is. But we'll get on to that. Thank you for those answers.

Now, directionally, again, under this heading, "Five (5) year drought," starting in year 3, when we did the last hearing and there was a lot of discussion about this risk and the necessity for some kind of reserves for this risk, when we were looking at it a couple years ago, under a seven (7) year scenario, we were talking about a variance of over $2 billion, correct?

MR. DARREN RAINKIE: Yes. You're referring to the 2.1 billion under IFF10-2.

MR. ANTOINE HACAULT: And before that, it was the IFF09-1. And that was also part of the hearing, and it was at $2.4 billion, correct?

MR. DARREN RAINKIE: Yes. That's what's here.

MR. ANTOINE HACAULT: And am I correct in suggesting that the impact of the drought has lessened because export prices have gone down?

(BRIEF PAUSE)

MR. DARREN RAINKIE: Yes. That's -- that's -- what factors into this calculation in the end, is -- is the -- as you said, the lost -- the lost revenue from the lower water flows.

MR. ANTOINE HACAULT: So in a very general way, the decrease in export prices had two (2) impacts on the projection for drought, the first being -- is if you needed to import some energy because you didn't have enough generation in Manitoba, it costs less to import that energy, correct?

MR. TERRY MILES: That's correct, yes.

MR. ANTOINE HACAULT: And the second impact was if the import prices were higher and you weren't able to export that energy, you had more money coming in. But now the export prices are lower, so if you aren't able to export that energy, you lose less when you're not selling?

MR. TERRY MILES: That's correct as well, yes. I guess I would -- I would also add, on the other side of it as well, is that probably when you start coming out of the drought, proportionally, your export revenues are less, as well, relative to previous years, so relative to a year in IFF09.

As we -- as we -- as conditions turn around, relatively speaking, our export revenues would be -- would be higher coming out of that. So you do need to consider that as well, in terms of the impact of -- of the drought.

While the net reduction is -- well, the net reduction is less in current IFFs. I suggest that turning it around and coming back out of the drought, that your ability to recover from the drought would be less as well, because your export revenues are lower. Well, you asked about -- revenues are lower.

MR. ANTOINE HACAULT: But one (1) of the major reasons given to this Board, and all parties, for asking a rate increase was the fact that, as compared to previous test years, your export revenue was down, so you need more from domestic customers, correct?

MR. TERRY MILES: I -- I won't disagree with that, yeah.

(BRIEF PAUSE)

MR. ANTOINE HACAULT: And I just want to make sure I understand this correctly too. I think -- I forget who exactly on the panel had explained this.

But IFF, if you run the ninety-nine (99) years in the same way as you're assuming some thermal generation as required, in that calculation you have included all of the drought years and all the high-flow years that have been experienced by Manitoba Hydro, correct?

MR. TERRY MILES: That's correct.

MR. ANTOINE HACAULT: So even inherent in the assumptions, there is some factoring of the floods that have occurred to better understand how the impact of those floods are throughout the nineteen (19) -- or ninety-nine (99) years and also what the impact of the high-flow is so that we are taking into consideration the low-flow years, correct?

MR. TERRY MILES: Yeah, I think in year 3 and beyond, I've indicated that there are low flows and there are high flows that average in -- into those. So inherent in those are some import costs, as well as Manitoba Hydro thermal resource costs that are factored into the -- into the IFF values, year 3 and beyond, yes.

MR. ANTOINE HACAULT: Perhaps I could direct all parties to page 535 of our book of documents. That might assist in -- 535. It was what we distributed on Friday.

(BRIEF PAUSE)

MR. ANTOINE HACAULT: So at page 535 there should be a graph that was part of Mr. Bowman's calculations evi -- evidence based on the figures at 537. While he'll be able to explain the table further, if his calculations of the mean income are correct, it would be shown at the dotted line on that table.

Would that make sense generally?

MR. TERRY MILES: I believe so, yes.

MR. ANTOINE HACAULT: So when I was trying to explain that you don't use the baseline of zero net income when you're figuring out what happens with respect to the drought, we can see that the median outcome, there's a lot of years where there's net revenue under that assumption that -- and all -- everything below is also calculated in that number.

So it would be significantly different than if we started that analysis at zero net income?

(BRIEF PAUSE)

MR. TERRY MILES: The numbers would be

different if you started it at zero, that's correct, yes.

MR. ANTOINE HACAULT: And I'm going to suggest to you that that's why we recovered so quickly from the 2004 drought, which is shown at -- as a big spike on the right-hand side of -- a little bit more than $300 million of net losses. It's because all those calculations are based on the mean outcome per IFF12.

MR. TERRY MILES: I would -- I would suggest why we recovered from that -- the drought 2003/2004 was the subsequent unprecedented water conditions that happened in 2004, going into 2005, which was the largest inflow, I think, record on history. That's why we recovered, I think, so quickly from the 2003/2004 low water conditions.

MR. ANTOINE HACAULT: Agreed. But there's a lot of other lines on that table which come close to the 180 to $200 million net income item, agreed?

(BRIEF PAUSE)

MR. TERRY MILES: Following 2003/2004?

MR. ANTOINE HACAULT: Prior to 2004.

It's not a very unusual or extreme event to have income in the range of a hundred and eight-two (182), was that -- close to 200 million?

There's other lines there in that range in previous experience of Manitoba Hydro?

MR. TERRY MILES: Yeah, I would think this chart does show that there are a number of years that are above the $100 million mark, yes.

MR. DARREN RAINKIE: Just to be clear though, Mr. Hacault, as I understand this table, this is net revenue, not net income. And I think if you flip to page 536, that's how I get that understanding, that this is kind of flow-related revenue and cost, not net income, per se. There's other things that flow into net income, like depreciation --

MR. ANTOINE HACAULT: Okay.

MR. DARREN RAINKIE: -- finance expense, those types of things. This is net -- net revenue, as I understand it, from export revenues, and fuel and power purchase, and water rentals.

MR. ANTOINE HACAULT: Mr. Bowman will explain the table. I can -- where he sourced the information. The next question I have is a very short one.

Just when I had started -- or done my

cross-examination of Mr. Kennedy, we had done some calculations as to what the difference would be between an ASL without net salvage and an ELG without net salvage for generation. And we hadn't had an IR which -- or undertaking which confirmed our numbers. Manitoba Hydro Exhibit 83, which was Undertaking 77...

(BRIEF PAUSE)

MR. ANTOINE HACAULT: It's just to confirm that the number that we had used, which was .21 percent difference, was in fact confirmed by Undertaking number 77, correct? So if we go to Undertaking number 77, so Manitoba Hydro Exhibit 83, second page...

(BRIEF PAUSE)

MR. DARREN RAINKIE: I have it now, Mr. Hacault.

MR. ANTOINE HACAULT: In the example I had used with Mr. Kennedy, we had done our own calculations for ELG without salvage at 1.63 percent depreciation.

And Manitoba Hydro was able to confirm

that our estimate was correct?

MR. DARREN RAINKIE: Now it's coming back to me, Mr. Hacault. Yes.

MR. ANTOINE HACAULT: You remember I had taken everybody to the cost of Keeyask at 6.22 million and the cost of Conawapa at 10.192 million, for a total of $16.412 billion.

That was what I was using, as far as general numbers, correct?

MR. DARREN RAINKIE: Yes, I recall that discussion.

MR. ANTOINE HACAULT: And that had given us a total of -- if we multiplied this difference between the ELG rate and the ASL rate of .21 percent, it gave us -- or it gives us, subject to check, when both of those plants are in service, a difference of $34.5 million additional depreciation expense between one (1) method and the other, correct?

MR. DARREN RAINKIE: Yes, I think that's the calculation, is that we did, based on your original one point six-three (1.63) estimate. I -- I'll check that part of the transcript. Mr. Hacault, just to make sure that there wasn't any other caveats that we put around that calculation. But sitting here right now, I remember that discussion based on your one point six-three (1.63) estimate.

MR. ANTOINE HACAULT: And the one (1) thing that we don't have -- and I'm taking this number from the IFF -- there's a total twenty (20) year planned capital expenditure by Manitoba Hydro of about $34 billion. That's at page -- perhaps everybody can turn to it, page 47 of the same book of documents, page 47.

(BRIEF PAUSE)

MR. DARREN RAINKIE: We have that, Mr. Hacault.

MR. ANTOINE HACAULT: Yes. So I was referring to total projected capital expenditures, and I got that at the bottom, where it says, "Twenty (20) year total," at the bottom of the -- page 47 in our book of documents. And it showed thirty-four billion, zero-seven-zero (34,070,000,000).

Do you see that?

MR. DARREN RAINKIE: Yes, that's the total CEF for the twenty (20) year period based on IFF12.

MR. ANTOINE HACAULT: So the one thing that we don't know -- and we went through this discussion on Friday -- is the extent to which ELG has properly been calculated for the remaining capital expenditures, which include Bipole 3 and, on the graph, a number of other expenditures?

That study has never been done precisely by Manitoba Hydro or by Mr. Kennedy, as I understand Friday's testimony?

(BRIEF PAUSE)

MR. DARREN RAINKIE: Just to be clear, Mr. Hacault, the -- it was just the generation where we had used the ASL without calculation that we previously referred to. All the rest of the plant was based on the ELG without calculation in IFF12. I think we went over that in some detail on Friday.

MR. ANTOINE HACAULT: Sub -- except for Wuskwatim. We know Wuskwatim was also an ASL calculation, correct?

MR. DARREN RAINKIE: Yes, the -- we said that we -- the rates that we used for Keeyask and Conawapa were based on -- were a composite of the rates that we used for Wuskwatim. So I was -- that's all the three (3) generation plants that are in this forecast.

MR. ANTOINE HACAULT: And on Friday --

the reason I'm suggesting, Mr. Rainkie, is that we don't know the exact numbers. I understood your testimony to be that, in the new study, the ELG depreciation rates will be looked at, because right now they're based on a lower rate as a result of the true-up, firstly, and, secondly, being a rate that's applied to vintage assets as opposed to new assets.

And directionally, I think we had agreed on Friday that the ELG rate, all things being equal, would it be expected to be higher than what you've actually used because of those two (2) factors, correct?

MR. DARREN RAINKIE: Yes. I think -- I think we -- that's what we talked about on Friday, and I indicated that we certainly wouldn't do prospective depreciation studies in the context of -- of a forecast. We used -- the study that we had from our expert was the best information we had at the time of preparation of this forecast.

(BRIEF PAUSE)

MR. ANTOINE HACAULT: Now, if I could turn parties to Tab 22A; that's page 404. It's an excerpt of a transcript of those proceedings. And to put some context in it, the portions that I'm going to be asking some questions are -- are found in pages -- at pages 405 and 406 of the book of documents. And at line 4 of the transcript on page 405 -- so page 405, line 4 of the transcript -- Mr. Kennedy's indicating, and I'm quoting:

"I remember sitting in Mr. Vince Warden's office in, I think it was, about the May time frame where we chatted about the effal -- Equal Life Group and the Average Service Life and where do we go with salvage."

And then I ask, at line 18, to Mr. Kennedy:

"Did you have actual numbers by that time as to the impact of ASL and ELG on depreciation and how much could be depreciated under one (1) study or method as opposed to the other?"

And Mr. Kennedy, at line 23, responds, referring to you gentlemen, Mr. Rainkie and Mr. Warden:

"...may have -- may remember better than I do. I think we were, at that time, still talking orders of magnitude rather than precise numbers."

And then flipping on to page 406, at -- at line 5, Mr. Kennedy responds:

"And to be very frank, the ELG was presented much in the same way we presented it yesterday with our friends up in the -- going through the same simplistic examples, we did some - a few accounts. So we went through the Company very similar, in terms of the theory of Equal Life Group, and we were blunt. I was blunt with the Company that, yes, it was going to result in a -- in a bit of an increase or an increase in annual depreciation expense."

And I'm quoting this just by way of context.

Do either of you remember whether or not Mr. Kennedy used the same example as he used for this Board in explaining the ELG method? It was that thousand-dollar example in his depreciation study.

MR. DARREN RAINKIE: I'm not sure if it was exactly the same figures, but it was a similar calculation, Mr. Hacault.

You know, I should say, it's not that Manitoba Hydro was unfamiliar with the ELG methodology. If we've left that impression that Mr. Kennedy came in, you know, in May or whenever -- I don't specifically recall when that meeting happened. But Manitoba Hydro has been doing depreciation studies for a long time. We were aware of the ELG methodology and the merits of it previous to that discussion with -- with Mr. Kennedy. So that was just one (1) in a long line of discussions that we've had about the various methodologies over the years.

Perhaps I was -- that was the first time I was involved in a depreciation study, but previous controllers and people in the controller division staff have had -- been having that discussion for a while.

MR. ANTOINE HACAULT: Mr. Warden, you appeared to want to add to the answer. If -- feel free, if you have something that you wish to add.

MR. VINCE WARDEN: No. I -- I don't have anything to add. I agree with what Mr. Rainkie has just stated.

MR. ANTOINE HACAULT: Did Mr. Kennedy, at these meetings, reiterate the qualification, which was in his presentation -- which we've extracted and put at pages 180 and 181 of our document book -- so pages 180 and 181 of our document book.

(BRIEF PAUSE)

MR. ANTOINE HACAULT: Specifically, at those two (2) pages, and I believe confirmed in testimony, he put the specific qualifier that ELG would comply with the International Association's (sic) Standard 16, provided that actual retirements match the retirement anticipated with the Iowa curve used for the depreciation rate calculation.

Did he bring that qualifier to your attention at that May meeting?

MR. DARREN RAINKIE: I don't remember specifically at the May meeting. But we'd been chatting about this, as outlined in one of your pre-ask questions, for quite a while, since IFRS came on the radar screen back in around 2007/2008. And I think Mr. Kennedy clarified that qual -- qualification.

It's not a qualification about the ELG method being a method that's acceptable under IAS 16. We're -- in that one, I think we were talking about gains and losses; that because the ELG methodology is more robust than the ASL methodology, if -- if you can prove that the ELG methodology has inherently taken into consideration gains and losses on assets, you would not need to book any gains and losses in your income statement.

And that is my understanding of that qualification. It's not saying that you couldn't use ELG. It's saying for the part of IAS 16 that says that gains and losses on the disposition of assets are to be taken to the income statement, that if you can prove to your auditor through the use of a model that the ELG methodology has already taken that into consideration, you don't have to book the gain or loss.

That's my understanding of that -- that part of his presentation, Mr. Hacault. And I think Mr. -- the days are wearing on now, and there's been lots of sporadic testimony about that. But I think Mr. Kennedy clarified that in his testimony, as well.

MR. ANTOINE HACAULT: And if it doesn't meet or match -- and we went through spillways and the dams, dikes, and weirs, where the actual retirements don't match at all the Iowa curve -- are you saying that we have to ignore what was said by Fortis auditors and by Mr. Kennedy? That his qualification is no longer relevant?

MR. DARREN RAINKIE: What I'm saying is, is that when we do that calculation -- and the model that Mr. Kennedy talked about used that -- if we find that actual retirements weren't well predicted by the model, then we might have to book a gain or loss to the income statement.

But it doesn't throw the use of the ELG methodology out the window, Mr. Hacault. It just means if you can't prove that for a particular account, you might have to book a gain or loss to your income statement.

MR. ANTOINE HACAULT: So under ELG, we -- we had gone through the example of the bridge, which was just at Grand Falls. No bridges anywhere else. That was a point that didn't have any relevance or significance to the Iowa curve that he chose.

What's Manitoba Hydro going to do with respect to all of the other plants that don't have bridges, but we used bridge as one (1) of the point to choose the Iowa curve?

MR. DARREN RAINKIE: I'm not going to go back over Mr. Kennedy's testimony time after time on this. What we're saying is that we will look -- we will -- and this --this caveat, or this -- this part of the presentation was related to booking gains and losses on your income statement.

And it -- in doing that, what you do is

you look at your actual retirement history, and it will determine whether there is a material gain or loss that you need to book on your income statement. It doesn't render the use of the ELG methodology as not being compliant with IAS 16, Mr. Hacault. So I don't know that there's much more that I can say on the -- on the matter than already has been put on the record.

MR. ANTOINE HACAULT: I don't think you've answered my question as to whether you're actually going to book a gain or a loss, but I'll move on.

(BRIEF PAUSE)

MR. ANTOINE HACAULT: Now, I think you've just responded this morning that Manitoba Hydro generally was aware of the ELG method.

Did it seek advice from or retain any other depreciation experts, apart from Mr. Kennedy, to advise it with respect to options?

MR. DARREN RAINKIE: No, Mr. Kennedy is one (1) of the preeminent depreciation consultants in this country. So I -- I'm not sure why we would have to go through the extra cost of doing that, Mr. Hacault.

MR. ANTOINE HACAULT: Are you aware that across the country there are other depreciation experts which say that even a sinking fund approach would comply with the new accounting standard?

MR. DARREN RAINKIE: No, I'm not aware of that. But I think in Mr. Bowman's pre-filed testimony, he indicated that the sinking fund methodology has fell out of favour recently, so. I'm not very familiar with the sinking fund methodology, Mr. Hacault. We've never used it.

But there is bits and pieces of information on the record indicating that because the sinking fund method results in a higher depreciation expense later on in the life of an asset, that it wouldn't meet the requirements of IAS 16. But I must admit, I haven't spent a lot of time analyzing it. It's not a methodology that we considered to implement here at Manitoba Hydro.

MR. ANTOINE HACAULT: But will you acknowledge that there are other depreciation experts out there that have different opinions and points of view than those of Mr. Kennedy?

MR. DARREN RAINKIE: Well, I've been part of regulatory proceedings for twenty-three (23) years, Mr. Hacault. I've been involved in rate of return proceedings before with Centra. And are there instances where experts disagree? Yes. Yes, there are.

But I don't think there's any question about Mr. Kennedy's qualifications and his -- and the advice that he provides. It was invaluable during this whole process. His interaction with the big four (4) accounting firms, as I said at one (1) point, was just as valuable as the calculations that he provided in the study, because there was a lot of uncertainty during the -- the early years of this, in terms of how the big four (4) firms were going to look at the group depreciation methodologies that are used by utilities, because usually utilities have millions of assets, and the don't depreciate every single asset with a separate depreciation rate.

So experts disagree; there's no doubt. I am not aware of those experts. But I still don't see why we would engage anybody other than Mr. Kennedy, given his qualifications.

MR. VINCE WARDEN: And I might just add that in hiring any consultant -- and -- and Manitoba Hydro does hire quite a number. And in so doing, we look at not only the qualifications that Mr. Rainkie referred to, but also the -- the cost. Mr. Kennedy has a long history with Manitoba Hydro. And, therefore, he's in a position to provide effective advice to the Corporation at a cost that is very competitive with the marketplace. And, you know, if we thought otherwise, then we would look elsewhere.

MR. RAYMOND LAFOND: I need to intervene. And I -- I need some clarity here, in terms of the direction of the discussion. And please correct me if I'm wrong on this. But my understanding was, in listening to Mr. Kennedy, it was not an issue of which method was better than the other, though he did think ELG was a better method than ASL.

However, the big issue was that, based on the current circumstances at Manitoba Hydro, ASL could not continue to be applied the way it has been in the past. There would be -- need -- and it would need to bring -- to -- to break it down in many more components, number 1. And, number 2, you will need to book gains and losses, which has not been done in the past. And therefore, the accumulative depreciation is probably not what it should be and that ELG was a method that, based on the current circumstances at Manitoba Hydro, would be a preferable method to be used.

Am I correct on that?

MR. DARREN RAINKIE: You're a hundred percent correct on that. Because the ASL methodology -- I mean, it's Average Service Life. Think about what the word "average" means. It's averaging a number of service lives in a group. ELG is a more precise methodology. It's more refined. So we can apply ELG at a componetization level that's less granular than the ASL methodology. And so you're a hundred percent correct.

MR. RAYMOND LAFOND: And if you have had all your assets, I guess, identified separately, somewhat like in Newfoundland, where they have forty thousand (40,000) lines, you could have continued with ASL, and where in Newfoundland were booking gains and losses, and certainly based on past experience, adjusting their expectation -- there -- they're life expectancy of different assets.

MR. DARREN RAINKIE: Yes, I don't think we'd have forty thousand (40,000) lines of code. We might have millions of lines of code. And then in that case, what you'd be doing is you'd be depreciating those shorter life assets using the ASL methodology.

And that's why we've been saying we're not -- we're sure that it would produce a similar result to ELG, because you've got to then pull those shorter life assets out of those -- those groups where they've been averaged. And it's going to increase your depreciation expense, and I think it has to mathematically. So I think you have a good understanding of the testimony thus far, Mr. Lafond.

CONTINUED BY MR. ANTOINE HACAULT:

MR. ANTOINE HACAULT: Mr. Kennedy has never provided you with an actual number of components that he thinks would be required under ASL, correct?

MR. DARREN RAINKIE: No, sir. We, in this last couple years, have been componetizing $14 billion worth of plant. And that's -- that's a big job; it's not something you do over the weekend. We had to make a policy decision based on the merits and then continue the work.

We weren't -- in putting a depreciation study together, we weren't thinking, Well, what's every question that might ever be asked about it? Let's componetize $14 billion worth of plant three (3) different ways just in case somebody has a question about it, sir.

So, no, we -- we worked with him to get an interpretation of the accounting standards. We worked with him to figure out what our policy choices were. And that's the calculations that we did to complete the depreciation study.

MR. ANTOINE HACAULT: And you've never asked any other depreciation expert or any other accounting or international accounting expert what, if any, componetization would be required under ASL?

MR. DARREN RAINKIE: For the same reasons, sir, we took our policy decisions and we did the work in the limited time that we have to -- to come to that policy. Exploring numerous policies in detail would have cost us hundred of thousands of dollars in wasted, precious time. And I think -- stand behind the evidence that we have at this proceeding. I think Mr. Kennedy has indicated why ALG is a superior method, the merits of it, and how we've applied it.

You know, we have our auditors sign -- we've done our componetization. We have our auditors sign-off under Canadian GAAP. So I'm quite happy with what we've done. I'm not sure why we would veer off in a number of different directions.

MR. ANTOINE HACAULT: I'll change the subject matter slightly, but it's related to this. Mr. Warden, at the last hearing, we heard on a number of occasions that there would be a decade of investment followed by a decade of returns.

Do you recall that kind of general discussion?

MR. VINCE WARDEN: Yes, I do.

MR. ANTOINE HACAULT: And what I'd like to have a discussion with you, Mr. Warden, about, because this Board didn't have the benefit of some of that general discussion, is with respect to new generation and Manitoba Hydro's experience as to what happens when you add blocks of power like Limestone. So that's the context of my questioning, sir.

Firstly, you would agree that adding blocks of power like Limestone, all of a sudden you've -- you can't just add little pieces. When you add a generating station, you get this big excess energy and, to a certain extent, capacity, correct?

MR. VINCE WARDEN: Yes.

MR. ANTOINE HACAULT: And Manitoba Hydro deals with this big additional block, in part, by Mr. Cormie's great work in securing long-term export contracts.

So some of that big block is absorbed by selling it to the export market?

MR. VINCE WARDEN: I agree that Mr. Cormie does great work.

MR. ANTOINE HACAULT: Do you also agree

that that's how you deal, in part, with this extra capacity and energy that you add to the system?

MR. VINCE WARDEN: Yes, that's right.

MR. ANTOINE HACAULT: And if we look back, when we added Limestone generation, which is, I believe, 1,340 megawatts, it cost in the range of what price, Mr. Warden?

MR. VINCE WARDEN: Well, the capital cost is 1.4 billion.

MR. ANTOINE HACAULT: And that was back in 1990. So if we're going to compare it to Conawapa, we'd have to adjust for inflation on that number -- or time value of money, correct?

MR. VINCE WARDEN: Yes. And I believe we did do that with an undertaking that was submitted to this Board.

MR. ANTOINE HACAULT: So that Conawapa is slightly bigger in generation. It's 1,485 megawatts. And instead of the 1.4 billion price that Limestone came in at, we're currently projecting about 10.2 billion, correct?

MR. VINCE WARDEN: Correct.

MR. ANTOINE HACAULT: And that's in 2026 dollars?

MR. VINCE WARDEN: Yes.

(BRIEF PAUSE)

MR. ANTOINE HACAULT: I would suggest to you that the first lesson is that it was less costly for my generation back in 1990 to add Limestone than it is to add Conawapa for the same kind of generation.

MR. VINCE WARDEN: Well, prices were conser -- considerably lower for all goods and services back in 1990 than they will be in 2025/'26, yes.

MR. ANTOINE HACAULT: And these generation stations have a combined life -- because we've componentized them -- of about a hundred and four (104) years, correct?

MR. VINCE WARDEN: Yes, on average.

MR. ANTOINE HACAULT: And I'd suggest to you that, much like Wuskwatim, in the very first decade or so of the production of one (1) of these new generation stations, there's not a lot of net profit generated by that. Your decisions are made in a long-term basis, and you normalize the cost to decide whether or not a plant is worth building.

You don't make that decision based on the first ten (10) years of projected revenue or losses?

MR. VINCE WARDEN: No, that's correct.

MR. ANTOINE HACAULT: So that -- if we're into year 50 of a vintage asset, the first thing that my generation, with respect to the older facility, benefits from is I'm paying in today's dollars as opposed to the dollars that I had to pay back fifty (50) years ago?

MR. VINCE WARDEN: Yes.

MR. ANTOINE HACAULT: So that it -- referring back to Mr. Williams's questions of you last week, sir, for the Manitobans on limited revenue and they have limited discretionary funds, it would be a lot easier for those people to pay for a vintage asset, because they're paying in today's dollars as opposed to taking that same money out fifty (50) years ago?

MR. VINCE WARDEN: Well, it speaks to the advantage of long-lived assets, like hydraulic generation, that Manitoba Hydro has in its portfolio -- portfolio, yes.

MR. ANTOINE HACAULT: And although some utilities have moved away from it -- and Quebec Hydro recently did so -- it was one of the views in the rate-making approach that, given this reality of the asset having more value in later years because of those dollar impacts, that a sinking fund approach might be relevant.

That was one view out there, correct?

MR. VINCE WARDEN: Yes, a sinking fund has been used in the past. But as indicated by Mr. Rainkie, it is now falling out of favour. I wouldn't quite say that -- that facilities have more value in later years. It's simply the -- the fact that as those facilities age, the embedded cost is more attractive than adding incremental generation at that time.

MR. ANTOINE HACAULT: So for Limestone, for example, if we get into -- well, I -- I probably won't be around; my kids might be around. But in forty (40) years from now -- it was built in 1990, so it'll be sixty (60) some years old -- we can still expect it to have, all things being equal, another forty (40) years of life, correct?

MR. VINCE WARDEN: Yes, recognizing of course that there will be some components of Limestone that will be replaced. In fact, that -- that's happening as we speak.

MR. ANTOINE HACAULT: So the embedded cost might rise a bit from the $1.4 billion. But Manitobans -- and when I'm not around; my kids will be grandparents -- will be benefiting from a low initial capital cost, that they have dollars that are worth, I guess -- it's a lot easier to pay those old numbers.

Am I correct in suggesting that?

(BRIEF PAUSE)

MR. VINCE WARDEN: Yes, recognizing that ratepayers though are not paying for -- for specific assets. They're -- they're paying for a mix of assets. And as with any other company, we're growing and adding new facilities which are inherently more costly than those put in twenty (20), thirty (30), forty (40) years ago.

MR. ANTOINE HACAULT: But the same principle will happen to that. I remember, Mr. Warden, the -- the first Hydro rate hearing I did was in the Limestone era. So I actually went that -- but...

And a lot of people were concerned about the capital cost of Limestone when it was being implemented, correct?

MR. VINCE WARDEN: Yes. Yes, I agree.

MR. ANTOINE HACAULT: And they were kind of thinking the same thing: Well, listen, how are we ever going to pay for that. Well, it's easy to pay for it today because of the dollars and because of the change in prices. So today, I, as a Manitoban, am getting a lot of benefits from the building of

Limestone, correct?

MR. VINCE WARDEN: Absolutely, yes.

MR. ANTOINE HACAULT: And has the Corporation considered the impact on the ability to build and to justify new projects if you add these extra percentages of depreciation cost in the initial years of the generation, which is what ELG is doing?

(BRIEF PAUSE)

MR. VINCE WARDEN: Mr. Hacault, we are following pract -- depreciation practices that are accepted -- generally accepted account -- in accordance with generally accepted accounting principles. We have done that in the past, and we will continue to do that in the future.

As Mr. Rainkie has talked about at length, going forward, those principles will be in accordance with International Financial Reporting Standards, assuming they are adopted in 2014. And under that methodology, depreciation will be in the Equal Life Group, ELG. So we will continue to -- to apply accounting principles that are accepted in the industry.

MR. DARREN RAINKIE: I mi -- might also

add, Mr. Hacault, is one (1) of the things, as we were preparing for this hearing, the International Accounting Standards Board issued an exposure draft on depreciation, clarifying International Accounting Standard 16, indicating that depreciation methodologies based on net -- net revenue were not acceptable under IFRS.

So the type of methodology I think that you're suggesting, where we depreciate more in the later years, has -- it's being clarified as we speak by the International Accounting Standards Board, the people that set the standards, that that's not an acceptable policy in the future.

So I just -- and we re -- we alluded to that in our rebuttal evidence, but I don't think we put the specific provisions on the record. And certainly, I could provide the Board with a link to that, because it's copyrighted. But that methodology would not be allowed under IFRS.

MR. ANTOINE HACAULT: But that wasn't my question. My question was whether or not Manitoba Hydro considered the impact. We saw that Keeyask and Conawapa would add about $34.5 billion of extra annual expense from one methodology to the other.

Has Manitoba Hydro considered the impact of whether or not it can even justify those new projects once it starts front-loading the depreciation on a project?

MR. DARREN RAINKIE: Mr. Hacault, I think we need to be clear here. Maybe it's more in Mr. Miles's area of -- neck of the woods. But when we're looking at the justification, the economic analysis of a -- of a new plant, we -- we look at the MPV of the costs and the benefits.

So under an economic calculation, the value of the plant is what you pay for it at the day that you pay for it. Depreciation is a -- is an accounting concept. And depreciation certainly comes into our rates. But I think in the economic evaluation, you're looking at the cashflow. Mr. Miles can confirm this.

But I think, if I understand your ques -- your question correctly, you're asking about the economic analysis of a -- of a particular plant as -- as opposed to how that plant, once it's built, comes into rates. And may -- maybe I need to make sure that I understand your question, but -- but sitting here, that's what I'm thinking. I think you're asking a question of economic analysis.

MR. VINCE WARDEN: I -- I would -- Mr.

Hacault, if you could just clarify your question, as well. I think I heard you say that Manitoba Hy -- that Manitoba Hydro is front-loading those costs by depre -- by the method of depreciation that we've chosen. Is that -- was that your question?

MR. ANTOINE HACAULT: I'll just provide some context. If I wanted personally to discourage any new hydraulic facilities, I would add more depreciation at the beginning, produced as my income from that extra generation. I would also -- and we'll get into the subject. I would also change my accounting practise to no longer capitalize a whole bunch of costs but make current ratepayers pay for those uncapitalized costs.

So I would bring up all these expenses. And Manitobans would say: Well, I don't want any of this new hydraulic generation. Please give me some CCTs, where we don't have all this capital cost and all these indirect overheads that we're going to have to pay today for something we don't even use.

So that's the context. So does Manitoba Hydro consider the impact on rates when it adds new generation? And part of that would be adding this extra depreciation that's going to be required, according to Mr. Kennedy, for these new projects.

MR. VINCE WARDEN: The question: Does

Manitoba Hydro consider the impact on rates? Yes, very, very much so. And that's why, in the financial forecast that we've presented to this Board, you do see Manitoba Hydro willing to accept a long period -- twenty (20) years, in fact -- in which financial targets will not be met.

So rate impacts are -- are carefully considered in any alternative that's put forward for new generation. So we have to look at -- and I think you've conceded that the benefits of hydro are over the very long term. That's what we're embarking on here, is a -- is a planned expansion program that looks at the very long term. And in the meantime, we have to manage that -- those rate impacts as best we can. That's what we're doing.

(BRIEF PAUSE)

MR. ANTOINE HACAULT: And part of that consideration of Manitoba Hydro is that -- and I think it was in part of the IRs -- responses filed this morning -- is that the difference between the accumulated depreciation and the book depreciation is only going to be adjusted, to a large extent, by about forty (40) years from now?

MR. VINCE WARDEN: The nature of depreciation is that rates are -- any difference in accumulated depreciation is recovered prospectively.

MR. ANTOINE HACAULT: But Manitoba Hydro's policy right now is that it substantially wouldn't be recovered quicker than over about forty (40) years, as opposed to starting to adjust it on a more when-I'm-still-around basis?

MR. VINCE WARDEN: Well, I guess back to your earlier comment, Mr. Hacault, that you somehow believe you're entitled to refund, and I think I put my position on the record earlier that, in fact, that is not the case, and we probably will have to -- in fact, we will address this in argument.

MR. ANTOINE HACAULT: Mr. Warden, I would suggest to you there's a difference between a refund and my line of questioning right now, which is how quickly we true-up.

MR. VINCE WARDEN: We -- we true-up -- as we've always done in the past and as is a common practice for all utilities, we true-up over the remaining lives of the respective assets.

(BRIEF PAUSE)

MR. ANTOINE HACAULT: But this is the first time in Manitoba Hydro's history that there has been such a significant difference between accumulated depreciation -- or book depreciation and the suggested depreciation, correct?

Never in Manitoba Hydro's history has it had over half a billion dollars of difference between those two (2) accounts?

MR. VINCE WARDEN: I think that's fair. But as we've reviewed quite extens -- extensively in these proceedings, there are a number of different things going on with depreciation, not the least of which is significantly extended service lives for -- for large groups of assets.

MR. ANTOINE HACAULT: And that's because Manitoba Hydro's view is that its assets are in good shape and will last those lives?

That's why Manitoba Hydro suggested to Mr. Kennedy that he extend the lives from what he recommended initially?

MR. VINCE WARDEN: I don't think we said they're in good shape, necessarily. I think we -- Mr. Hall went into some length describing how assets are in more -- specifically identified and went through the bar-coding process that Manitoba Hydro has followed such that we're able to now determine more specifically assets -- the condition of assets and -- and the expected lives of -- of those assets.

MR. ANTOINE HACAULT: So, for example, dams, dikes, and weirs, Mr. Kennedy had suggest a hundred year life from the depreciation and, after speaking to your engineers, came to the conclusion that it should be brought up to a hundred and twenty-five (125) years, except for a couple generating stations, correct?

MR. VINCE WARDEN: Yes, that's right.

(BRIEF PAUSE)

MR. ANTOINE HACAULT: I just want to make sure I understand the evidence. With respect to BC Hydro, are we in agreement that it has asked and obtained the permission to use the US financial accounting standards, the...

(BRIEF PAUSE)

MR. ANTOINE HACAULT: Are we in agreement?

MR. DARREN RAINKIE: Sorry, Mr.

Hacault, you're going to have to repeat that question. I'm not sure there was a question there.

MR. ANTOINE HACAULT: So my understanding, and I'm suggesting to you, that BC Hydro is preparing its consolidated financial statements in accordance with IR -- IFRS, except it will continue to apply regulatory accounting in accordance with the United States Financial Account Standards Board accounting standards?

MR. DARREN RAINKIE: That's correct. The BC government amended its legislation such that Treasury Board could determine what the accounting standards were of its Crown corporation. So they're mixing and matching IFRS and US GAAP.

MR. ANTOINE HACAULT: And I asked on Friday whether or not such a legislative change was required in Manitoba. And to my understanding, is that there's no need for Manitoba Hydro to request a legislative change, because there is no legislated requirement that it follow a particular standard, other than rate-regulated standard.

MR. DARREN RAINKIE: I think Mr. Warden indicated that there -- that we're to follow generally accepted accounting principles if we are part of the provincial government.

If you go to the Public Sector Accounting Board Standards, it says that government business enterprises -- i.e., enterprises that are sustainable on its own revenues -- should follow publicly acceptable accounting practices, which is -- then refers us over to the CICA accounting handbook part 1, which is IFRS.

And that's how you get Manitoba Hydro to the IFRS. The Public Sector Accounting Board Standards say that companies like us should apply IFRS, which would be -- IFRS is generally accepted accounting standards for Manitoba Hydro.

MR. ANTOINE HACAULT: But my question was whether or not there was any legislative requirement that a particular standard be chosen.

MR. DARREN RAINKIE: Well, we're -- Mr. Warden and I are not lawyers, as you point out once in a while as -- periodically. You know, we -- we would have to check that. But I -- I think there's a requirement or expectation that Manitoba Hydro follow generally accepted accounting principles.

And generally accepted accounting principles for government business enterprises after January 1st, 2014, will be IFRS. So I -- I'm not sure I can agree with your proposition that it's unclear what we are to follow. I think it's abundantly clear what we are to follow.

(BRIEF PAUSE)

MR. RAYMOND LAFOND: Can I intervene? And -- essentially, the Manitoba legislature could pass legislation obliging Manitoba Hydro to follow a non-acceptable accounting principle base -- based on IFRS, or Canadian standards, or accept -- generally accepted accounting standards.

So the issue is not so much that currently legislation says you have to do such. Being silent, essentially, you have to follow generally accepted accounting principles. But not to follow them and for auditors to audit your books, there would need to be legislation ordering you to do otherwise.

Am I correct?

MR. DARREN RAINKIE: That's correct. The -- the concern is that if we follow anything other than IFRS, what does that mean for the audit opinion of Manitoba Hydro? And Manitoba Hydro's results are -- I use the word "consolidated". Theoretically it's a little different than consolidated, but it -- our results are -- are put into the consolidated summary financial statements of the Province of Manitoba.

So the question becomes if we -- if we were to use something different, how would it affect their audit opinion?

THE CHAIRPERSON: I wonder -- you know, it is -- we've been at it for close to two (2) hours. I wonder if it wouldn't be an opportune time, despite the very fascinating subject, to -- to take a ten (10) minutes break.

--- Upon recessing at 10:50 a.m.

--- Upon resuming at 11:08 a.m.

THE CHAIRPERSON: I believe we're ready to resume the proceedings. We have further documents to enter into the record.

MS. PATTI RAMAGE: Yes. Thank you, Mr. Chair. We have three (3) further undertakings to file. But I've run out of tabs, so we're done. At a hundred, I'm -- I'm out. So I think we -- we have to stop here. Others may differ.

So the first one we have is Undertaking number 7. And that's a comparison of actual financial results to forecast over the last five (5) years. That we will assign Manitoba Hydro Exhibit 100.

--- EXHIBIT NO. MH-100: Response to Undertaking 7

MS. PATTI RAMAGE: The next is Manitoba Hydro was to provide unit costs for each existing generating station, as well as the discount rate applied. That was Undertaking 42. And we assign that Manitoba Hydro Exhibit 101.

--- EXHIBIT NO. MH-101: Response to Undertaking 42

MS. PATTI RAMAGE: And then finally is Undertaking number 71. And that's dealing with a GAC IR Second Round to Manitoba Hydro 3D and 'E'. And that was checking on the figures in that and providing a basis for not disclosing the materials in an Excel spreadsheet form. And that, we assign Manitoba Hydro Exhibit number 102.

--- EXHIBIT NO. MH-102: Response to Undertaking 71

THE CHAIRPERSON: Thank you, Ms. Ramage. Back to you, Mr. Hacault.

MR. ANTOINE HACAULT: Thank you, Mr. Chair. I'll be going through some of what other utilities have done to deal with this IFRS issue. And I think a table that might be useful to conduct that discussion with is found at page 412 of our book of documents. It's Tab 23, page 412. There's a table there. It's a response by Manitoba Hydro to CAC/Manitoba Hydro Round 1 36. And in particular, 'G' is the one that we've reproduced. It's a five (5) page response, and it has a table with utility names.

MS. PATTI RAMAGE: Mr. Hacault, while everyone is getting those materials in front of them, I believe Mr. Miles located the IR reference that you were looking for earlier. So maybe he could speak to that.

MR. ANTOINE HACAULT: Absolutely. Thank you.

MR. TERRY MILES: Okay. Thanks, Ms. Ramage. The IR that I was looking for was CAC/MH Round 2 63L. And in the IR it talks about a sensitivity -- sensitivity analysis that Manitoba Hydro does with respect to its expected case forecast. It indicates that:

> "The high case represents a plausible
> scenario reflecting the upper limit
> of prolonged pricing, which could be
> the results of a combination of

factors, such as high load growth, high commodity prices, and stringent environmental regulation, while the low case represents a plausible scenario reflecting the lower limit of prolonged pricing, which could be the result of low load growth, depressed commodity prices, and lax environmental regulations.

"I would also -- also add to that that for the -- the high forecast case, as chari -- characterized by the following factors in varying degrees and combinations: high economic growth and average to high growth and energy demand, increased capital costs due to higher lending rates, increased natural gas and coal prices relative to those assumed in the expected forecast, stringent US environmental policies, and the US ratifying legislation for GHGs.

"The low forecast case is characterized by the following factors and varying degrees and combinations: low economic growth, aggressive energy conservation policies, low growth and energy demand, less stringent US environmental policies with implementation of a conservative greenhouse gas/GHG policy, lower natural gas and coal prices relative to those assumed in the expected forecast, and the US moved to self-sufficiency and energy supply."

CONTINUED BY MR. ANTOINE HACAULT:

MR. ANTOINE HACAULT: Thank you. And my question was whether or not, firstly, there was a description. So you've provided that to me. The second part of my question was whether or not those descriptions were provided to your forecasters. I wanted to know what the forecasters were to direct their mind to when they were giving you the numbers.

So can you confirm that the descriptions that you've just read into the record are the descriptions that are sent to your forecasters? Because if they're being asked a question, they're responding to a particular definition, and I want to know what that definition is.

(BRIEF PAUSE)

MR. TERRY MILES: It's been indicated to me that the -- the IR provides a description that is provided to the price forecast consultants. The description of the high case and low case is what our consultants are provided with to provide their forecast.

(BRIEF PAUSE)

MR. ANTOINE HACAULT: Is there any direction to them as to what probabilities or how they weight all these factors?

MR. TERRY MILES: No. There's -- there's nothing explicit about the probabilities. I think one (1) of the key statements in there and -- is the plausible scenario out in time. We don't specify what -- sustained, I guess.

It's a sustained -- sustained, low level pricing over the long -- over the long term are -- are sort of the key factors there. But we do not specify any probabilities or -- or -- or percentiles associated with that, because I think the price forecast consultants will combine them how they feel they need to combine them for their perspectives. Different price forecast consultants might use them slightly differently, based on their -- their feeling of the -- the future and their perspectives out in time. So we do not explicitly specify that, no.

MR. ANTOINE HACAULT: So, for example, I think you mentioned interest as a component in the high export number ratio.

Do you leave that to the total discretion of the people who provide you with their estimates as to what they're supposed to assume the interest rates are?

MR. TERRY MILES: I don't believe interest rate was in the list of things that I mentioned.

MR. ANTOINE HACAULT: I thought it was mentioned in the high scenario. It might be relevant. I'm just thinking outlie -- loud. If interest rates were higher, it might be a higher capital cost of construction resulting in higher numbers in -- in the -- so I'm just trying to understand.

Firstly, was I correct in understanding that interest was mentioned in the high scenario?

MR. TERRY MILES: I guess it was mentioned. Higher lending rates, I guess, was mentioned as one (1) of the factors, yes. You're correct.

MR. ANTOINE HACAULT: And my question was to you: Do you provide them with any kind of parameters as to what would be considered a high lending rate?

MR. TERRY MILES: We do not provide them with that, and our perspective is that we want them to provide an independent outlook in times, in terms of their lending rates. So we allow them to look at what lending rates they feel in the US is appropriate for their scenario that they -- that they put on in time and whatever build-out that they believe is required in their jurisdictions.

MR. ANTOINE HACAULT: I didn't hear the component lending rates for the low scenario. Maybe I misunderstood. Could you just check?

And if it isn't in there, could you explain why you don't use the same parameters for the high and low?

(BRIEF PAUSE)

MR. TERRY MILES: I'd suggest that the consultants will use a combination of these parameters. They're not specific for each one. You are correct that it is not listed in the list of things that I -- that I gave you. I suggest it's things like these factors that the price forecasters consider, and we don't specify one way or -- or the other.

If the price forecasters feel that they need lower lending rates in the low scenario, I would expect that they'll use lower lending rates in the low scenario. So that's -- that's, I think, the extent that I can -- I can provide details to you on that.

MR. ANTOINE HACAULT: Thank you very much, Mr. Miles. Now all parties, I believe, had turned to page 412 of our book of documents. That's where there is a table. And the first utility on that table was the one that I was just des -- describing at -- so page 412, Tab 23 of our book of documents, it's BC Hydro.

In one (1) of the responses from Manitoba Hydro, it was indicated there had been some kind of discussions with the various utilities; but because of the confidentiality nature, it wasn't a lot of detail provided with respect to the actual responses.

But I -- I'd like to -- without encroaching on any confidentiality items, does Manitoba Hydro have any knowledge as to what drove BC Hydro or the Government of British Columbia to decide to go to what I'll call a modified IFRS with rate-regulated accounting provisions?

MR. DARREN RAINKIE: Mr. Hacault, of course we're -- I hate speaking for other utilities. We're not there on the ground, discussing things with them. But we've made an observations several times in the -- in the hearing, and it's publicly available information that -- and this is going back a couple of years -- that BC Hydro had, I think, over $2 billion with the rate-regulated assets on their balance sheet. And I think it was roughly equal to their equity on their balance sheet.

So if they could not maintain rate-regulated asset treatment, they would essentially be writing off all of their equity in one (1) journal entry. And I think, if I understand the way it works, that that then would float back up to the Province of BC that would probably have to take a significant -- that same hit on their accumulated deficit.

So I can't speak for them, but I observed that as being a real problem. Of course, Manitoba Hydro, we have a much smaller proportion of rate-regulated assets and a different rate-setting methodology, the cost of service rate-setting methodology. So as I've said before on the record, it's much more manageable in our case.

MR. ANTOINE HACAULT: So for a layperson like me, this is where I never cease to be amazed as to what you can do with accounting -- or changes in accounting policy.

For BC, your understanding is that this magic wave of a -- of an accounting pen would be about a $2 billion hit to their retained earnings, correct?

MR. DARREN RAINKIE: Yes, and I think their rate-regulated assets are growing, so it's probably even larger than that. But, you know, as a professional accountant, I don't want to be too glib about it.

We're moving on to a new framework of accounting and when you -- I -- being IFRS. And when you move on to that new framework, usually what happens is you have to re-state your books as if that -- those same principles had always been applied.

Now there's some exemptions in the case of IFRS. But you know, it's -- it's not -- you know, accountants cooking the books. It's just the way that

-- what happens when you move from different frameworks of accounting. And as IFRS currently stands, it does not allow rate-regulated accounting. So if they had moved to IFRS, they would have to make that journal entry.

MR. ANTOINE HACAULT: So am I correct in understanding from kind of a layperson's perspective that BC and BC Hydro weren't comfortable with these guys from London setting international standards, setting what would have to be rates in BC, based on these new, broad accounting policies, as opposed to the government wanting it to be a rate-regulated accounting?

MS. PATTI RAMAGE: Mr. Hacault, I don't think Mr. Rainkie can possibly qualify what the management of BC Hydro was comfortable with and wasn't comfortable with. I think we -- he's -- he's given you -- you know, he -- he has made very clear his -- that -- his comments. He's not on the ground. He doesn't -- he doesn't know -- he wasn't there, doesn't -- doesn't know exactly. So to -- to ask him their comfort level, or -- is --

MR. ANTOINE HACAULT: Fair enough. All he knows is that there was a significant impact, based on an IFRS policy decided by London and that the result, without knowing exactly the reasoning why, was that somebody decided that for rate-regulated assets, they wouldn't following IFRS. They would continue to rate regulate based on US GAAP.

MS. PATTI RAMAGE: Mr. Hacault, again, you've -- you've identified Mr. Rainkie's con -- what he saw as a concern with a result. And I don't think he can identify -- there could be many, many reasons why that happened, some not to do with BC Hydro. It could be the BC government, something that happens on their books. So I'm just concerned about how far we go, in terms of Mr. Rainkie's observations.

MR. DARREN RAINKIE: Mr. Hacault, I think we shouldn't talk -- think about intergen -- generational or jurisdictional battles. The movement to -- I'm not talking about BC Hydro here, sorry. So just to make my counsel feel good, I'm not going to go where you said I shouldn't go. But -- and for the reasons stated, but --

CONTINUED BY MR. ANTOINE HACAULT:

MR. ANTOINE HACAULT: Are you going to go in a different area --

MR. DARREN RAINKIE: I don't think I --

MR. ANTOINE HACAULT: -- but do the

same thing?

MR. DARREN RAINKIE: -- well, I don't -- I don't -- just the end of your question, there was a little spin on it, I think. I don't -- I don't think that we should set this up as, you know, the regulators in Canada versus the International Accounting Standards Board.

The decision to move to IFRS was made by the Accounting Standards Board of Canada. There are over a hundred countries that use -- use IFRS as their accounting framework right now. And in a -- in a world that's shrinking because of, you know, electronics and all the gadgets that we have now, and the whole notion that capital flows freely between countries, you know, like many other professions, they're becoming international professions.

So I don't think we should emotionally set it up as a war between regulators and accounting standard setters. The -- the movement to IFRS was -- was there to -- for reasons other than just rate setting.

MR. ANTOINE HACAULT: I'm not sure that -- how that answered my question. But I guess your observation doesn't apply with respect to US, because we see we see a number of Canadian utilities adopting

US GAAP for rate-regulated purposes, correct?

MR. DARREN RAINKIE: Yes. We've seen a number of utilities. I guess there's a bit of a loophole. They've been allowed to go to US GAAP. But unless the utilities have taken the extraordinary step of becoming registered under the Secures -- Securities Exchange in the United States, this is a three (3) year deferral of IFRS. They've been, as I understand it, they've been granted the right to use US GAAP for 2012, 2013, and 2014. It's not a long-term solution.

It's not that different than us deferring IFRS for three (3) years. It's a similar -- a similar thing. So I -- I don't think that this US GAAP is some long -- it -- it's a temporary solution until the International Standards Board got its act together in rate-regulated accounting. And I think the Board should understand that that's -- that's the case.

There may be the odd utility in Canada that, because their parent is registered with the Securities Exchange in the United States, have registered themselves. But I think that's few and far between in this -- in this listing.

MR. ANTOINE HACAULT: I don't intend to get into a debate. You will have argument later as to whether or not the Public Utilities Board has to following accounting standards or has to follow rate-making principles. We'll get into that. That's more a matter of legal argument.

Now, with respect to -- you mentioned some -- some utilities going to US GAAP on a more temporary basis. Would Hydro One be one of those?

(BRIEF PAUSE)

MR. DARREN RAINKIE: Yes.

MR. ANTOINE HACAULT: And the way Hydro One dealt with its concern -- well, Hydro One requested, firstly, the permission to do this from the Securities Commission, is that correct, because it is an issuer of securities?

MR. DARREN RAINKIE: Yes. That's -- that's how you -- maybe I shouldn't have called it a loophole. But that's -- that's how you effect this, is that if you have securities on a securities exchange in Canada, you would ask the provincial regulator -- the securities regulator for that three (3) year deferral.

MR. ANTOINE HACAULT: But it doesn't have a US parent. It's solely a Canadian corporation, correct?

MR. DARREN RAINKIE: That's correct.

That's why it would only be the three (3) year deferral, not a long-term solution for them.

MR. ANTOINE HACAULT: And is my understanding correct that it's owned -- Hydro One is owned by the Government of Ontario?

MR. DARREN RAINKIE: Yes, that's my understanding.

MR. ANTOINE HACAULT: I'm suggesting to you that the impact on IFRS with respect to Hydro One was in the range of a 6 percent rate increase if it hadn't gone to US GAAP.

Do you have any understanding of that, sir?

MR. DARREN RAINKIE: No. No, sir, I -- I don't.

MR. ANTOINE HACAULT: Okay. Thank you.

MR. RAYMOND LAFOND: I'm sorry, do we know if the US GAAP adoption is for rate purposes -- or rate-fixing purposes, or is it also for their audited financial statements which are consolidated with the prov -- provincial statements?

MR. DARREN RAINKIE: Sir, I won't pretend to know everything in every jurisdiction in Canada. But as I understand it, Hydro One has asked their regulator to use US GAAP for rate-setting purposes.

And once again, I'm not -- I can't give you clearance that everybody has done this. But generally my understanding is, is that most companies that have moved to a different accounting platform have asked their regulator to move their rate setting to that platform as well.

You know, as we've done many times, we've sat and we've wandered through out financial statements, and the regulatory process re -- relies on the reliability of audited financial statements. So -- and the transparency that occurs when you use the same principles for both your external financial reporting and your rate setting. So most companies would want that alignment for both transparency purposes, for reliability purposes, and to keep the costs of setting -- of having different sets of books, you know -- or to avoid the cost of having different sets of books.

So while I can't say it in 100 percent of the cases, most of the times, that -- that has been what's happened.

CONTINUED BY MR. ANTOINE HACAULT:

MR. ANTOINE HACAULT: So in the table

that was prepared by Manitoba Hydro at page 413, so page 413, the table prepared by Manitoba Hydro, at the bottom of the page, there's a heading, "Hydro One."

And am I correct in understanding Manitoba Hydro's response that both for regulatory purposes and external purposes, Hydro One will be using US GAAP for regulatory assets and liabilities?

MR. DARREN RAINKIE: That's my understanding, Mr. Hacault.

(BRIEF PAUSE)

MR. ANTOINE HACAULT: Do you -- I had asked you whether you had any knowledge of the impact being about 6 percent increase in rates if they weren't allowed to do this.

Do you have any understanding, having spoken to Hydro One, as to where the significant increases would be? Would they have been similar to Hydro in capitalized overheads? Would that be a significant area?

MR. DARREN RAINKIE: You know, I -- I haven't had any direct conversations with Hydro One, Mr. Hacault. But, you know, I think generally, the types of issues that we've identified -- the writeoff of rate-regulated assets, the expensing of more overheads -- is probably, for most utilities, a fairly similar issue.

You know, I -- I apologize I can't give you the -- the 100 percent answer on this. But we do quite a bit of reading at Manitoba Hydro of what's going on, but it doesn't make us experts in every single case.

MR. ANTOINE HACAULT: No, thank you. That answer is useful, I think.

Now, can I jump one (1) step further? With respect to debt financing for Manitoba Hydro through the province, does Manitoba Hydro compete with other debt financing in North America?

MR. MANFRED SCHULZ: Our long-term debt is advanced to us from the province of Manitoba. And the province of Manitoba is an active participant in the capital markets alongside all the other participants; that would include other provinces and any other utilities that may borrow in their own name.

MR. ANTOINE HACAULT: What I'm trying to understand, for example -- let's take it one (1) step at a time -- debt rating agencies, such as Moody's, Standard & Poor's, and DBRS, if they're analyzing major electrical, and gas utilities in the US would be doing all of that accounting based on US GAAP in their reports.

Am I correct in that understanding?

MR. MANFRED SCHULZ: The rating agencies, as a general rule, will take the financial statements as they are published using whatever accounting standards that are used by those entities that are being rated, perhaps similar to what Mr. Rainkie had indicated with respect to juri -- other jurisdictions and how -- and he may have read lots but is not an expert. I'm -- it would be a little bit far afield for me to -- to speak definitively on how the credit rating agencies assess different jurisdictions in terms of accounting standards. So I am generally aware that they may make some adjustments to bring standardization to some matters, but, again, that would be an area that I don't have specific knowledge in terms of the other jurisdictions and -- and debt financiers.

MR. ANTOINE HACAULT: So to try and better understand that answer, you have no knowledge, say, for example, if BC Hydro hadn't been allowed to do US GAAP, as to what, if anything, debt rating agencies, such as Moody's, Standard & Poor's, and DBRS, would do in the financial analysis to make the correction, if I put it that way, for standardization of about $2 billion in retained earnings.

There would be that discrepancy?

MR. MANFRED SCHULZ: Well, I haven't read the specific reports pertaining to BC Hydro and the Province of British Columbia with respect to the prospective impact of a regulatory change. And I'm not sure that there have been any specific comments from the rating agencies in that regard.

But as a general rule, it is my understanding that the credit ratings, you typically look at cashflows as being their primary consideration with respect to debt leveraging and interest coverage ratios and so on. They tend not to be very focussed on any accounting changes. But in this particular case, given that the materiality would be significant, I'd be hesitant to speak to what the -- the rating agencies and their -- their rating boards may have opined with respect to the implication of that magnitude of BC Hydro in -- in the Province of British Columbia

MR. ANTOINE HACAULT: Mr. Schulz, have you specifically spoken to Moody's, Standard or (sic) Poor's, or DBRS to see how they're going to deal with the, I'm going to say, discrepancy, between US GAAP reporting utilities and Manitoba Hydro -- we'll get into the numbers, but I saw numbers like about a hundred and thirty-seven thousand dollars ($137,000) a year -- or a million; I always forget it's millions -- and a hit to retained earnings? Those reports are going to be out there for all investors to see.

Have you spoken to those rating agencies to see how they're going to explain that, if at all?

MR. MANFRED SCHULZ: Just as a point of clarification, are you speaking with regard to Manitoba Hydro's accounting and...?

MR. ANTOINE HACAULT: Specifically Manitoba Hydro, because we've seen that if it goes to IFRS there's going to be a hit of -- what is it, two hundred (200) and some million to retained earnings? So artificially that's going to have -- that's this magic accounting pen, is going to have -- we're going to stroke off from -- the rating agencies report that kind of amount, and we're also going to be going through some numbers. There's about 137 million, I think, in some of the projections with respect to increased expense as a result of reducing what can be capitalized, increased depreciation, et cetera.

MR. MANFRED SCHULZ: Well, specifically related to the credit rating agency opinions with respect to Manitoba Hydro Electric Board and the province of Manitoba in -- in terms of their implementation towards IFRS, there have been brief conversations when we do meet with them on this topic area. It -- it's not a major mover of our financial ratios in the same sense it might be with BC Hydro, just because the quantum is smaller. In this case, I think it's a $200 million plus or minus adjustment on a retained earnings. They see that as a step change.

So they would see that as a change in leverage, but what's relevant to them is what kind of cash flows would we be generating for interest coverage. So it hasn't been a topic that has been significantly canvassed by the credit rating agencies in our discussions. And -- and I don't have the -- the reference immediately at hand, but I believe that there was a First Round question by CAC that spoke to that matter, and I think we indicated on the record in the IR that the implementation to IFRS is not -- not anticipated to have any impact in our creditworthiness and our ratings.

MR. VINCE WARDEN: And just further to Mr. Schulz's comments, the reason that it hasn't been a real focus with our rating agencies, I suspect, is because the impact on Manitoba Hydro is relatively small. We have a -- we have a one (1) time charge against retained earnings. In -- in the event that we do move to IFRS the annual impact on net income is minimal.

So we certainly discuss this with the rating agencies, and they haven't expressed concern about that because -- because, relative to other utilities, other jurisdictions, without commenting on those other jurisdictions, I suspect the reason they don't show a concern is because the impact is minimal at Man -- Manitoba Hydro.

MR. MANFRED SCHULZ: And I actually now have the -- the reference that's in the record, and it's First Round IR CAC/MH Question number 6, and it's on page 6 of 7, where we indicate that:

> "While a conversion to International Financial Reporting Standards, or IFRS, is being monitored by the credit rating agencies, no rating action is anticipated as a result of Manitoba Hydro's conversion to IFRS, or any change in accounting policy, treatment, or methodology."

MR. ANTOINE HACAULT: So if I've understood the answer to -- my initial question was: Are they going to be reporting at -- under IFRS, or under a rate-regulated version for Manitoba Hydro?

MR. MANFRED SCHULZ: Again, just to provide clarity they take our financial statements as reported, and when they do their ratio analysis that's the information that they would use as reported in our financial statements. Should they wish to make additional adjustments in their own analysis for prospective impacts associated with rate -- rate-regulated accounting, or IFRS, or those kind of matters, I'm not aware of those calculations. And that analysis is -- is typically done at their shop and -- and not necessarily shared with us. But as indicated in that IR response, and my understanding is, that it won't have a major impact to us in terms of -- in terms of our rating.

It does provide some technical challenges for the credit rating agencies in terms of just standardization comparability, but again that's -- that's the work that they would do in their analytical framework and not necessarily in our court.

MR. ANTOINE HACAULT: So you have no information that these debt analysts will standardize so that investors know what they're looking at; if they're looking at US GAAP and -- and former C-GAAP, or if they're looking at IFRS?

(BRIEF PAUSE)

MR. MANFRED SCHULZ: I can speak to what they have indicated to us with respect to our rating, and I -- I've put that on the record. With respect to how they treat the other analytical challenges that they may face, they haven't had detailed conversations with me on that.

MR. ANTOINE HACAULT: Yeah. For example, I was just wondering whether you'll say, Well, listen, we're doing IFRS, and to ensure consistency when our readers are looking at the financial -- it's like, you know, interest coverage, debt equity, all these numbers, you should really adjust our numbers. This is IFRS numbers, and if you're going to be compared -- comparing your investment to all the US utilities, this is the number that you should look at?

You haven't had that discussion with Moody's, Standard or (sic) Poor's, or DBRS, and you don't know how that's going to be handled?

MR. MANFRED SCHULZ: I don't know the details of how that's going to be handled. What I do know is that the greater the standardization, the easier the analytics become. And -- and the movement -

- and I think Mr. -- Mr. Rainkie spoke to the -- the capital markets for one (1) of the reasons for the movement to IFRS -- I mean, International Financial Standards -- and if -- to the extent that they're consistent and disclosed, it certainly helps provide some international standardization to the aim of providing standardized and clear metrics to bond-holder -- or, you know, to credit rating participants and those who would be interested in reading those reports.

So to the extent that they're standardization, I think they generally would be supportive of that; to the extent of making the adjustments for that, again, that's -- that's the work of their analytics and -- and not necessarily in our court, per se.

MR. ANTOINE HACAULT: The big problem, as I understand it, is that US has no intention, with respect to rate-regulated activities, to go to IFRS.

Is that understanding correct? That's why all these Canadian utilities are going to US GAAP?

MR. DARREN RAINKIE: The United States has not declared whether they're going to adopt IFRS a hundred percent. I would indicate, though, that I don't think it's a question of whether the United States goes or not. The United -- the FASB being the

United States Accounting Standards Board, is working with the International Board on a number of projects, and it's not a question of will there be a hundred percent conversion ord -- zero. It's not a question of zero or a hundred; it's a question of how much, because standards are converging. It's a fact. We have to deal with it. It's not something that's going away anytime soon.

Most of the agenda of the International Accounting Standards Board is cleaning up and -- and finishing standards that relate to the economic downturn that we've had in terms of financial instruments and such. And I reiterate that the International Board, at this point, is looking at issuing an interim standard on rate-regulated accounting and developing a final standard. I have no way of knowing whether that will ever come to fruition or not. We're hopeful.

But I think at some point we will get conversion of all these accounting principles, that -- that this situation will work itself out in a matter of time. And what companies have been doing is finding safe havens, I think, until it works itself out. Some have gone to US GAAP. We've deferred our IFRS implementation.

I mean, one (1) of the things, Mr. Hacault, just for clarity of the record, because we've been talking a lot about what others are doing, but I think it's more important to the Board what Manitoba Hydro is doing, is that one (1) of the -- if we could, and we can't go to US GAAP; there's a significant problem for Manitoba Hydro going to US GAAP. We have cashflow hedges that have been set up so that our accounting recognizes the economic natural hedge that we have between our US inflows and outflows.

Under US GAAP, hedging -- hedging account -- hedge accounting is much more restrictive. We would not be able to employ our current hedge accounting. And looking at -- that we have, just rounding here, probably approximately $2 billion of net US debt net of sinking funds. If we couldn't do that hedge accounting for every point zero one (.01) cent change in the US exchange rate, we would have to take $20 million plus or minus to our net income.

So our net income wouldn't be a function any longer of, you know, how -- how much energy we can sell, and how well Mr. Cormie does in selling energy in the United States, and how well we are at managing our costs, and what our domestic ratepayers are -- are paying. It would -- our net income would fluctuate significantly just on the -- the change in the value of the US/Canadian exchange rate. So there's a -- even if we were able to go to US GAAP, there's a significant impediment for Manitoba Hydro, given that our level of exports and our level of US debt. It's just to make sure that's -- that's clear.

It's -- it's not just about legislation and securities exchanges, there's also some different accounting standards, some significant cha -- differences between Canadian GAAP and US GAAP. And we have to be mindful of that as well.

MR. ANTOINE HACAULT: How many years has Manitoba Hydro used its depreciation policies and accounting principles which were in effect as of 2009? How many years do we have to go back before we see significant changes?

In other words, how long has the rate-regulated policies well served this use -- utility?

MR. VINCE WARDEN: Mr. Hacault, rate-regulated accounting has served Manitoba Hydro well in the past. And, you know, as we go forward, we have to adapt. So accounting policies change over time. And for as long as I've been here, there -- there have -- this is probably the -- well, in fact, there's no doubt moving to IFRS is the most significant change in those policies that we've experienced at Manitoba Hydro.

MR. ANTOINE HACAULT: And this is not to get to you age or whatever, but I -- I had -- I had asked the question about how long had the rate-regulated policies, with respect to books, served Manitoba Hydro well?

Is it two (2) decades, three (3) decades, more than that?

MR. VINCE WARDEN: Well, we've only recently recognized specifically rate-regulated assets and liabilities on the balance sheet of Manitoba Hydro. I believe that would have been in -- probably in the 2009/'10 fiscal year that we specifically, on the balance sheet, had an -- an item for rate-regulated assets and rate-regulated liabilities.

There's -- implicit though, our auditors have accepted the implicit approval of the regulator for certain things that we do that are germane to the operations of -- of the utility. So that goes back to as long -- since -- ever since we were regulated, going back, I believe, 1989 was the first year of regulation, I believe.

MR. ANTOINE HACAULT: Now --

THE CHAIRPERSON: We -- I'm sorry, Mr. Warden, would you mind drilling down a little bit, part of the statement to the effect that the auditors have implicitly recognized the role PUB in rate setting.

Could you -- could you drill down a bit on -- to that area?

MR. VINCE WARDEN: Yes. Well we've never had a -- a letter, so to speak, from -- from the PUB saying, Yes, we approve Manitoba Hydro's accounting policies. But because we are regulated and we appear before this Board on a regular basis, the auditors have accepted implicitly the approval of the -- of the regulator with respect to Manitoba Hydro's accounting policies without that explicit approval.

(BRIEF PAUSE)

MR. RAYMOND LAFOND: I guess it's a good a time as any to ask a question I do have.

When I look at page 70, it does specify -- of your annual report, it does specify that your rate-regul -- regulated assets add up to $310 million, correct?

MR. VINCE WARDEN: Yes, that's right.

MR. RAYMOND LAFOND: Now, when I look at page 87 -- just a second here. No, sorry. When I look at page 57 of your annual report and I look at the year 2011.

And -- and the preamble to this is this: We've been talking a lot this morning about the impact of IFRS and the impact of a new depreciation medit -- method. But if I look at page 57 again of the annual report under the line, "Depreciation and amortization," the expense for 2011 was $393 million, correct?

If I look at -- if I then turn over to page 23 of the IFF12 and I look at the line, "Depreciation and amortization" in 2015, it is $394 million or virtually the same.

That 2015 amount assumes not moving to ELG depreciation method?

MR. VINCE WARDEN: It does assume ELG.

MR. RAYMOND LAFOND: It does assume ELG.

MR. VINCE WARDEN: Yes.

MR. RAYMOND LAFOND: So in effect, there is really no increase between 2011 and 2015?

MR. VINCE WARDEN: That -- that's correct on a net basis. There are a number of pluses and minuses that -- that --

MR. RAYMOND LAFOND: That's in spite of a new facility coming on stream - Wuskwatim, in particular?

MR. VINCE WARDEN: Yes, that's correct.

MR. ANTOINE HACAULT: Mr. Lafond, that was the whole purpose of me going through whether or not the IFF going forward wa -- was actually ELG and the change in the accounting method and asking these witnesses whether or not for Wuskwatim, Keeyask, Conawapa, and all the other facilities they were actually using a true ELG rate.

We don't know the exact number, according to how I've understood this testimony, as to what the true impact of moving to ELG is. It's not shown in the IFF12 going forward.

MR. RAYMOND LAFOND: Well, I just heard that the 2015 year does assume using the ELG method.

MR. VINCE WARDEN: Yes, it does. So the depreciation and amortization line though includes a number of different things. And among them is the -- the par -- probably the largest one is the Power Smart Program. So the amortization of -- of our Power Smart Program would be included in depreciation and amortization.

So you were referring to the year 2011. That would include a amortization of Power Smart, I believe, in the order of $40 million, in that order of magnitude. So under IFRS, that is the major charge against retained earnings because our Power Smart programs are no longer eligible for amortization. So that would be removed from depreciation and amortization.

MR. RAYMOND LAFOND: But and -- but -- but when I look at page 70 of your annual report, the very bottom line, in total, regulated assets of $43 million was the amortization amount for 2012 and $39 million for 2011. So it's a fairly consistent amount from year to year. And you're continuing to spend on a fairly consistent basis.

So that should not be a very major impact, should it?

MR. VINCE WARDEN: Well, with respect to the Power Smart programs, yes, because it's not being reflected in depreciation and amortiza -- amortization going forward under IFRS.

MR. RAYMOND LAFOND: Okay. So you're assuming in 2015 it would already have all been written off?

MR. VINCE WARDEN: Yes, yes, absolutely.

MR. RAYMOND LAFOND: Thank you.

MR. VINCE WARDEN: Yes.

CONTINUED BY MR. ANTOINE HACAULT:

MR. ANTOINE HACAULT: And just to make sure I haven't misunderstood the evidence, as of 2015, Wuskwatim, Conawapa, Keeyask are all major generating facilities that are not going to be on ELG.

They are ASL right now in the IFF, correct?

MR. VINCE WARDEN: Well, yes, and we've used that as a proxy until such time as we have the numbers from Mr. Kennedy for -- under ELG. So we've used ASL without net salvage for purposes of those three (3) generating stations.

But to be clear, that's not -- Keeyask and Conawapa are not affecting the 2015 year that we were -- I was just having a discussion with Mr. Lafond.

MR. ANTOINE HACAULT: Now, dealing with accounting policies with respect to land -- and this is changing the subject slightly -- if Manitoba Hydro chose to, like Saskatchewan, value its land at fair market value, first, there would be no depreciation applied to land, correct?

MR. DARREN RAINKIE: That's correct, Mr. Hacault.

MR. ANTOINE HACAULT: So that if Manitoba Hydro wanted to use its accounting pen and increase its asset values, it could do a fair market value -- that's an option -- of land.

And there would be no depreciation expense that would be correlated to that magic accounting pen, correct?

MR. DARREN RAINKIE: I'm starting to take offence professionally here that we can just do things at the -- at the stroke of a pen. But, yes, Mr. Hacault, land -- land does not get depreciated. It's one of the only assets that doesn't have depreciation. So you could make a fair value adjustment, I suppose, on transition to IFRS for your -- for our land.

MR. ANTOINE HACAULT: And where would that show up, as far as a better-looking number? Is -- is that on the balance sheet or elsewhere?

(BRIEF PAUSE)

MR. VINCE WARDEN: If we were to revalue the land, it would only affect the balance sheet. It would not affect the income statement. Yeah. It would just be on -- on the balance sheet.

MR. ANTOINE HACAULT: And that would be an item, as in Saskatchewan, that would make the financials look better, at least from the balance sheet perspective, correct?

(BRIEF PAUSE)

MR. VINCE WARDEN: You know, Mr. Hacault, I don't think either Mr. Rainkie or -- nor I are -- are familiar with what Saskatchewan did. I'd be surprised if they chose to revalue land only. That doesn't sound reasonable to me.

MR. ANTOINE HACAULT: I'm suggesting to you that Saskatchewan elected to measure certain land and building assets at fair value as of the transition date of IFRS.

Do you have any information to contradict that suggestion, sir?

MS. PATTI RAMAGE: Mr. Hacault, we are right back to where we were Friday. You're referring to the documents that the Board has -- the materials that the Board has ruled are not -- are -- are not admissible in this hearing. Mr. Warden and Mr. Rainkie have told you they don't know. They're not familiar with the Saskatchewan situation.

And you're putting questions to the witness by quoting the documents that -- that this Board has ruled are not in evidence. And I would suggest we ought to respect the ruling of the Board.

MR. RAYMOND LAFOND: I'll -- I'd like to, however, ask a question in principle, not related to Saskatchewan. Generally speaking, you can write up your assets to market value, but only -- it's a one-time thing -- when you do move to IFRS.

Am I not correct, as a matter of principle?

MR. DARREN RAINKIE: With one (1) twist, Mr. Lafond, and I think we talked about this a few days ago, is that on transition to IFRS, you can look at class by class, and you can write up assets.

You also can select a long-term accounting policy of valuing your assets at every quarter and year end at fair value. Of course, we talked about -- at length about the difficulties of doing that in -- in our Corporation, given that our assets aren't -- aren't out there for sale. Land may be different, but -- also the volatility that that would bring to your -- to your income statement.

And the fact that I don't know of any utility -- and once again for the life of me, maybe somebody can find one (1) example in Canada. But usually utilities are regulated on historic costs. It's not common at all, in my understanding, to regulate based on fair values just because of the volatility and -- and -- that's inherent in that process.

MR. RAYMOND LAFOND: Thank you.

THE CHAIRPERSON: It's five (5) after 1:00 -- sorry, five (5) after noon. So I suggest that we break for lunch and resume the proceedings at one o'clock.

--- Upon recessing at 12:02 p.m.

--- Upon resuming at 1:10 p.m.

THE CHAIRPERSON: Good afternoon. Do we have any documents to acknowledge?

MS. PATTI RAMAGE: We do not this afternoon.

THE CHAIRPERSON: Mr. Hacault...?

CONTINUED BY MR. ANTOINE HACAULT:

MR. ANTOINE HACAULT: Good -- good afternoon, all. Mr. Warden, I suspect a lot of these answers will be provided by you. I'm just going to go through a brief summary of how the reserves policy developed. And at the last hearing -- and I'm just inspiring myself from what you said at the last hearing.

Initially, the policy was that the reserve target would be two (2) consecutive years of the worst drought on record, correct?

MR. VINCE WARDEN: Yes, Mr. Hacault, according to my recollection. That goes back quite a number of years, however.

MR. ANTOINE HACAULT: And at that time, the reserve was set in terms of a number instead of a debt-equity ratio. And I'm suggesting you -- you had responded that drought was the major concern. That's why we had that target.

MR. VINCE WARDEN: At that particular time our -- again going back a number of years, our -- our debt-equity ratio was very low. So we were looking at -- or the board of Manitoba Hydro was looking at some short-term measures to bring the reserves, as we called them then, or retained earnings up to a very minimum -- minimal level, after which longer-term targets would be set.

MR. ANTOINE HACAULT: And by the time I hit, as a young lawyer, the first rate hearings in 1989 and 1990, the target had evolved to being described as a proportionate ratio of 85/15.

Would that sound about right, sir?

MR. VINCE WARDEN: Yes. There was a 85/15 target at one point, and that would be around that time frame, yes.

MR. ANTOINE HACAULT: Let's be clear. Manitoba Hydro hadn't achieved that target, but that's the target it was setting.

MR. VINCE WARDEN: Yes. Right.

(BRIEF PAUSE)

MR. ANTOINE HACAULT: And then, eventually, that target moved to the current target, which was expressed as a 75/25 target, correct?

MR. VINCE WARDEN: For debt-equity, yes.

MR. ANTOINE HACAULT: And we saw that -- and you explained this earlier -- that Manitoba Hydro's board has modified it slightly in the decade of investment.

It's still a target, but it's acknowledged that that target will not likely be met in the decade of investment, correct?

MR. VINCE WARDEN: It -- it is still our official target, but it is acknowledged that it will not be met during the period of major capital expansion.

MR. ANTOINE HACAULT: And at the last hearing we had, there was a pretty significant and detailed analysis of whether Manitoba Hydro was properly assessing the drought risk, which is still considered to be the biggest risk facing Manitoba Hydro?

MR. VINCE WARDEN: No, I wouldn't say it's the biggest risk. The biggest risk -- in fact, it's not the biggest risk. In fact, some people say it's not a risk at all. It's a certainty. We will -- we will have drought. The -- the largest risk, though, is a loss of major infrastructure, specifically Dorsey.

MR. ANTOINE HACAULT: And so we had a table at that hearing, identifying big risks but also the likelihood that those risk would occur, correct?

And the result of that analysis, I'm suggesting, is that the one (1) which was of greatest concern to Manitoba Hydro as being something that it might really face was a drought risk?

MR. VINCE WARDEN: No. No, I don't -- I'm not sure I can acknowledge that. A drought risk is real, for sure, but so is -- is the risk we face with a loss of infrastructure.

(BRIEF PAUSE)

THE CHAIRPERSON: When -- when does Dorsey come on stream? I'm sorry, when does Riel come on stream so that it can be termed as a backup to Dorsey?

CONTINUED BY MR. ANTOINE HACAULT:

MR. ANTOINE HACAULT: You're looking at the CEF, Mr. Rainkie?

MR. VINCE WARDEN: Yes, we are looking at the CEF. So if you wanted to turn to that, it's page 17 of the CEF. So I just wanted to confirm the in -- in-service day -- date. The projected in-service date is May 2014 for -- for Riel station.

(BRIEF PAUSE)

THE CHAIRPERSON: Was there any attempt to try to quantify the -- the potential costs of -- of the loss of Dorsey?

MR. VINCE WARDEN: Well, for a number of years we've just indicated that it would be in excess of $2 billion. And if we were to have a catastrophic loss of Dorsey, the cost -- social cost would be probably in the tens of billions of dollars, actually, if Dorsey was out for an extended po -- period of time.

And I might just add that Riel isn't -- will not act as 100 percent backup for -- for Dorsey. It will alleviate a loss of Dorsey, but -- in that it will allow additional imports. But it certainly isn't a replacement for Dorsey.

MR. RAYMOND LAFOND: But it has how much capacity versus Dorsey?

MR. DAVID CORMIE: M. Lafond, right now, the 500 kV line originates at Dorsey. And so if we are to import in an emergency, the power has to go to Dorsey. The Riel project moves the termination point from Dorsey to Riel so that the five hundred (500) line comes into Manitoba and connects to the grid in Southern Manitoba at Riel.

So it doesn't replace the -- the Dorsey facility; it just breaks the facilities up at Dorsey and moves the interconnection point to Riel. And then once with -- once we have Bipole 3, then there will be conversion equipment installed at -- at Riel.

So it's a -- kind of a phased project. The first phase is to move the termination point from the five hundred (500) line to -- to Riel, rather than having it terminate at Dorsey, so if we were to lose the Dorsey, facility we could still import. So that's -- we have all the eggs in one (1) basket right now at Dorsey. So the first phase is to -- is to segregate that -- break up that facility so it can be more independent.

MR. ANTOINE HACAULT: And that is one (1) of the items I do see in my lifetime. We see it, hopefully, in 2014, correct?

MR. DAVID CORMIE: I hope so, yes.

MR. VINCE WARDEN: That -- again, though, that's on -- only -- that's not the conversion equipment, which doesn't come in until 2017 with Bipole 3.

MR. RAYMOND LAFOND: I need to understand the -- what you're telling me. You -- we can still import, but we will not be able to convert it for usage in -- in Winnipeg?

MR. DAVID CORMIE: So Riel will also be the southern terminus for Bipole 3. And -- and Bipole 3 is a DC line. And so the conversion equipment to convert the DC power into AC and then inject it into the Southern Manitoba grid will occur at Riel. So the completion of the DC line, plus the installation of the cur -- converter equipment, that part of the -- of the project won't be in service until 2017. But in the meantime, by 2014 we can move the interconnection point from Dorsey to Riel. So there -- it will be a phased-in project.

MR. RAYMOND LAFOND: By moving it to -- to Riel without a converter station, it does work? Like we -- because it -- it comes in as AC versus DC?

MR. DAVID CORMIE: Yes, the -- the 500 kV interconnection is an AC interconnection. And -- and it's an AC interconnection now at Dorsey. We're just moving the interconnection point to the east of Winnipeg rather than west.

THE CHAIRPERSON: Given that your biggest risk is infrastructure at Dorsey, do you have a backup plan in place to address a failure at Dorsey -- a major failure at Dorsey?

MR. VINCE WARDEN: Well, our backup plan is essentially taking full advantage of our southern generation, including wind and imports. So that's -- if we were to lose Dorsey, that -- the value of imports is -- is magnified at that -- at that point, if that should occur. So -- and that's why we -- we've stressed so -- on so many occasions how important it is to get Bipole built as soon as possible.

CONTINUED BY MR. ANTOINE HACAULT:

MR. ANTOINE HACAULT: And, sir, the number that you quoted, is that found in the 2012 annual report? I know there are risks identified in -- in that report.

MR. VINCE WARDEN: Yes, Mr. Hacault. I'll just locate that for you.

MR. ANTOINE HACAULT: I believe it's at page 52.

(BRIEF PAUSE)

MR. VINCE WARDEN: Yes, you're correct. That's where it's found, page 52.

MR. RAYMOND LAFOND: In regards to the -- the Bipole 3, Bipole 3, yes, it is important for reliability reasons, but is it going to be bringing in generated power from others than Keeyask and Conawapa?

MR. DAVID CORMIE: M. Lafond, the addition of Bipole 3 will create a new pathway for all the power that's being generated in -- in the North at Kettle, Long Spruce, Limestone, Keeyask. It will all be split in the North. And generally the loading on the three (3) bipoles will be balanced so that there's a -- the losses on the system are minimized. So it --

it will be a shared resource.

MR. VINCE WARDEN: But until Keeyask and Conawapa are -- are brought online, there'll be no incremental revenue associated with that.

MR. DAVID CORMIE: Mr. Chairman, you were asking about the contingency plan. In Manitoba Hydro Exhibit number 41, we demonstrated how -- the importance of the generation on -- that's coming down the DC system is to the total Manitoba load. And this might be a good opportunity to refer to that exhibit and to get an understanding of the significance of the loss of Bipole 1 and Bipole 2 to the supply of -- of load.

It's the -- there's two (2) coloured charts where we showed the source of all generation and -- and compared that to the demand for electricity in Manitoba and the net interchange that was occurring on December the 11th. That was Exhibit number 41. Do you have that, sir? Yes.

So in the top chart you'll see three (3) broad bands of blue. The light -- the lower band of blue is the Kettle Generating Station. That's the lightest band. The middle one is the power that's coming from Long Spruce, and the top band is the power that's coming from Limestone.

So the -- those three (3) bands comprising over 80 percent of our supply on that -- on that day were -- that power was flowing to Southern Manitoba on -- on the Bipole 1 and Bipole 2. So if we were to lose the -- the Dorsey facility, none of the power that could be generated in the North could -- could reach Southern Manitoba, because there's only one (1) pathway for that power to come south.

So the contingency plan is, to the extent that we can, we will buy a thousand megawatts from the United States, and that power will flow in. But, you know, you can see on that date that we probably had 3,500 megawatts being sent from Northern Manitoba to Southern Manitoba. So there's no way we can cover off the shortfall.

And so the -- the contingency plan is to shed load. You have to maintain control of the -- of the supply and demand balance in the province. And to the extent that we can supply a load, we will keep that load on the system. To the extent that we can't, then we have to -- we have to shut that down.

And the processes that are in place is a rotating load shed in -- in a controlled manner throughout the province so that people have some electricity at least some of the time. But without having Bipole 3, there's no way we can keep the -- the demand for power to all customers. In spite of having maximum imports, maximum thermal generation, there's just -- the shortage is too great.

So Bipole 3 provides that alternate path. And if Bipole 1 and Bipole 2 go down, then we can still bring, you know, between 2,000 and 2,500 megawatts south from -- from Northern Manitoba as the -- as the alternative.

So this -- this chart graphically shows you the importance of -- of the DC system to the reliable supply in Southern Manitoba, because over 80 percent of our demand is in sou -- in the South, with 80 percent of our generation in the North. And it's linked by the -- the DC system.

(BRIEF PAUSE)

MR. ANTOINE HACAULT: Does the Board have any other questions, or shall I move on?

CONTINUED BY MR. ANTOINE HACAULT:

MR. ANTOINE HACAULT: I would direct the parties to what was filed this morning and, in particular, Exhibit 101. Exhibit 101.

(BRIEF PAUSE)

MR. ANTOINE HACAULT: The undertaking of Manitoba Hydro in that exhibit was to provide the unit costs for each existing generation station on Manitoba Hydro's system and for Manitoba Hydro to also indicate the discount rate that was used.

(BRIEF PAUSE)

MR. ANTOINE HACAULT: Now, in the second full paragraph, under the heading, "Response," there's an indication that:

"The cost of service study includes all costs included in the Corporation's revenue requirement, which are then functionalized as generation, transmission, sub-transmission, distribution plant, or distribution service."

First, did I read that correctly?

MR. VINCE WARDEN: You did.

MR. ANTOINE HACAULT: Bonus points. So as regards the revenue requirement in breaking it down for the cost of service study, what, if any, portions of costs are not allocated?

In other words, is there full-cost accounting when it comes to costs of service?

MR. VINCE WARDEN: Yes. All costs incurred by Manitoba Hydro are allocated through the cost of service study.

MR. ANTOINE HACAULT: So the front line here, there would be some portion of the salaries of each of you allocated to transmission, generation, and distribution?

MR. VINCE WARDEN: To the -- to the extent that such costs are included in overhead -- and we've had long discussion about overhead capitalized and methodologies for capitalizing overhead. But to the extent that such costs are included in capitalized overhead, yes, they would be allocated here.

MR. ANTOINE HACAULT: If they're not in overhead, then, as you've indicated, they're capitalized, and -- and that would relate to future projects?

MR. VINCE WARDEN: Yes, and that would be included in -- in part of the capital cost of the -- of the facility, as indicated in column 1 on page 2 of Exhibit 101.

MR. ANTOINE HACAULT: So the overhead

costs to date have been capitalized in accordance -- for these particular facilities in accordance with Manitoba Hydro's, I'm going to say, previous policy prior to the accounting changes that it's presenting?

MR. VINCE WARDEN: Well, they're capitalized in accordance with man -- Manitoba Hydro's capitalization policies of the day, which have been evolving over time.

MR. ANTOINE HACAULT: Have there been any -- any significant changes in Manitoba Hydro's capitalization policy prior to 2009?

(BRIEF PAUSE)

MR. VINCE WARDEN: Yes, 2008/'09 would have been the start of the implementation of accounting changes related to our -- to capitalization.

MR. ANTOINE HACAULT: So with the exception of Wuskwatim, all the generating, transmission, and distribution systems, if we look at the capital cost, they're all done in accordance with Manitoba Hydro's previous policies?

(BRIEF PAUSE)

MR. VINCE WARDEN: Yes, I would say that's fair, although I wouldn't make too big of a point of it, because, you know, as it affects Wuskwatim the most -- for the most part, it would be consistent with accounting policies in effect for -- at the time of Limestone, for example.

I should also mention that, really, with -- with respect to generation, there's not a lot of Manitoba Hydro internal labour associated with these projects, as most of the costs -- the bulk of the costs are -- are contract.

MR. ANTOINE HACAULT: So if I've correctly understood your answer, it was not correct in excluding Wuskwatim, because all of the years leading to Wuskwatim, if you had engineers, indirect overhead costs for office, and administrative staff for those engineers for the Wuskwatim project, all of those costs would have been capitalized in accordance with the same policy that you would have used for Limestone?

MR. VINCE WARDEN: For the most part, yes.

MR. ANTOINE HACAULT: And we also see a column "O&M", so operating and maintenance.

All of the operating and maintenance costs are allocated to each of the projects and the transmission and distribution?

MR. VINCE WARDEN: Yes.

MR. ANTOINE HACAULT: So if we go back to the previous page of Exhibit 101, third full paragraph, I'm quoting:

"Cost functionalized as generation in the COSS
reporter] include the total cost related to generation facilities including: mitigation, HVDC transmission facilities (excluding Dorsey converser -- converter station), and a share of communication facilities, administrative buildings, and general equipment."

So for allocating costs to the Manitoba consumers, you are allocating all known costs to be able to recover them from the different --

MR. VINCE WARDEN: Just -- just to be clear, this is an extract from the costs of service study -- the prospective costs of service study -- study for 2013. And I think your -- your previous question referred to transmission.

And as indicated at the bottom of the

third paragraph that you were just referencing, the analysis does not include the network AC transmission. So it does include DC, because DC is considered -- the HVDC system is considered a part of -- a part of generation. So that's why it's referenced here.

We are, though -- I must say, we are getting a little bit into the costs of service study, which will be the subject of a -- of a separate hearing. The purpose of this undertaking was to derive the unit cost of -- of generation facilities, and the costs of service study was used as a source for that -- for coming up with those costs.

MR. ANTOINE HACAULT: I -- it's not my intention to get into the costs of service analysis, Mr. Warden. But I did want to bring to this Board's attention that Manitoba Hydro is already doing full-cost accounting for another part of this rate hearing so that -- you're moving away from full-cost accounting under -- if you adopt IFRS, but you're not doing -- moving away from full-cost accounting for allocating costs between different consumers.

MR. VINCE WARDEN: Well, that -- that's what the costs of service study is. It's a cost-allocation methodology to functionalize costs so that they can be appropriately allocated to the various consumer classes, customer classes. Not referred to as "full-cost accounting", though. So I think it's a bit of a misnomer to refer to that as full-cost accounting. It's an allocation process quite different from full-cost accounting.

MR. ANTOINE HACAULT: And in that allocation process for a non-accountant like me, you're doing a full set of calculations to allocate amongst different customer classes?

MR. VINCE WARDEN: Yes. And there's a methodology that's followed -- a very strict methodology that is followed for purposes of the costs of service study which, as I indicated, you know, is the subject of another proceeding.

MR. ANTOINE HACAULT: So all the finance, administration is all allocated between different consumers for this separate calculation?

MR. VINCE WARDEN: For the purpose of the costs of service study, yes.

(BRIEF PAUSE)

MR. ANTOINE HACAULT: So if I look on the table on the next page, O&M, which is column 4, would incluse -- include things like finance charges, correct?

MR. VINCE WARDEN: No, finance charges are listed there as a separate line item or a separate column. So if you look at column number 7, headed up "Interest," that would be the finance charges.

MR. ANTOINE HACAULT: Sorry, I misstated my question. It was the finance department charges would be included in O&M?

MR. VINCE WARDEN: Well, O&M would include -- so the starting point for the cost of service study is to take the operating, maintenance, administration line ite -- item directly from the annual report, or at least the equivalent thereof, and -- and allocate that to the different facilities and, hence, into the -- ultimately to the different customer classes. So all O&M is allocated, including the finan -- the finance department.

MR. ANTOINE HACAULT: I think I understand your response. So that the four point two-seven dollars ($4.27) per megawatt hour, it wouldn't just include the people who are actually working at the Limestone facility. It includes all the support that Wuskwatim gets administratively from other parts of Manitoba Hydro's operations.

MR. VINCE WARDEN: Based on an

allocation methodology, yes.

MR. ANTOINE HACAULT: And this morning we had talked about the difference between vintage assets and new assets coming in online. Is it fair to use the table on page 2 of Exhibit 101 to illustrate that?

For example, by looking at Limestone, which is the most recent one at the top of the page, that's a 1990 facility, except for Wuskwatim, which was recently put online. And it's five (5) or six (6) lines down.

And we see the difference between those facilities by going across those lines?

MR. VINCE WARDEN: Yes, based on, again, the methodology that is used for allocating costs through the cost of service study, that is the appropriate cost to assign to Limestone and other facilities.

MR. ANTOINE HACAULT: So I should count my lucky stars that somebody had the wisdom of doing Limestone, which at the top shows the total cost per megawatt hour and, in columns 9 and 10 gives me some variations, depending on what kind of flow we use.

Dependable flow, Limestone's coming in at PCOSS at thirty dollars and fifty-three cents

($30.53) correct, per megawatt hour?

MR. VINCE WARDEN: Yes.

MR. ANTOINE HACAULT: And under maximum flow, that goes down to nineteen dollars and seven cents ($19.07) per megawatt hour for Limestone, correct?

MR. VINCE WARDEN: That's right.

MR. ANTOINE HACAULT: And we compare that, although it's prorated according to the little stars. For Wuskwatim, the dependable flow is about three (3) times more per megawatt hour, at ninety-eight dollars and eight cents ($98.08), correct?

MR. VINCE WARDEN: That's right. And someday, presumably, that'll look pretty good too.

MR. ANTOINE HACAULT: So I take your comment as that we have to wait some time for -- to look better, a little bit perhaps like Limestone. So future generations, it will look better in their eyes than it does today for guys like me?

MR. VINCE WARDEN: Well, everything is relative, Mr. Hacault. And certainly, you know, looking at ninety-eight (98) versus thirty (30) looks like it's high cost. But that's the nature of investment in hydraulic generations.

MR. ANTOINE HACAULT: And I guess the

issue the Board is going to have to decide is how much this generation has to pay versus what benefits and the use -- and useful nature of the facility requires payment later on in its life.

Moving to another area, still on accounting matters, I'll direct parties' attention to page 370 of our book of documents. Page 370 of our book of documents, page 370. It's Tab 20.

(BRIEF PAUSE)

MR. ANTOINE HACAULT: Page 370 at Tab 20 of our book of documents.

(BRIEF PAUSE)

MR. ANTOINE HACAULT: Sorry, I gave people the wrong page number. It's actually 368. I had noted the wrong number in my notes. So it's page 368. That's shown as "Schedule A, Accounting Changes, IFF12." It was part of Exhibit -- Manitoba Hydro Exhibit 55.

Now, this table, as I understand it, sets out some of the accounting changes that Manitoba Hydro has and proposes to implement, correct?

MR. DARREN RAINKIE: Yes, as it relates to operating costs.

MR. ANTOINE HACAULT: So that if we look at this table and, in particular, on the left-hand side, under, "OM&A," about -- the next heading is underlined and says, "Overhead capitalized." And under that, there's, "Admin and general." And if I move across up to the year 2013, I see the number 51.

What's that number intended to illustrate or...?

MR. DARREN RAINKIE: That is the accumulative effect up until 2012/'13 of the changes to our overhead capitalized. So that's increase to expense, reduction to amounts capitalized to assets.

MR. ANTOINE HACAULT: So in 2013, there would be, under that line, fif -- being two thou -- for administration and general, $51 million that would no longer be capitalized but would be expensed?

MR. DARREN RAINKIE: That's correct.

MR. ANTOINE HACAULT: And then we have to move, because of the change in dates, to understand the full impact with respect to admin and general up to 2015.

Is that the first year in -- in which your table illustrates the impact of both the CGAAP changes and IFRS changes?

MR. DARREN RAINKIE: That's correct.

MR. ANTOINE HACAULT: So if we look under where we were before, under the heading, "Overhi" -- "Overhead capitalized," that's the CGAAP changes, admin and general, and move right across to the 2015 year, we see that $53 million will no longer be capitalized, but it will be expensed, correct?

MR. DARREN RAINKIE: Yes, in that particular year, 2015.

MR. ANTOINE HACAULT: And if we move down that 2015 year, we see further down a $37 million number, and that's IFRS changes admin in general?

Is that -- again that amount would no longer be capitalized but would be expensed?

MR. DARREN RAINKIE: That's correct.

MR. ANTOINE HACAULT: And these amounts are with respect to all of the capital projects that are in place, or going to be undertaking go -- on a go-forward basis?

MR. DARREN RAINKIE: Yes, this is the portion of cost that used to be capitalized to capital projects that no longer will be capitalized.

MR. ANTOINE HACAULT: So that using very rough numbers, if we move across the page we're looking at somewhere between ninety (90) some million and about 100 million which will no longer be capitalized on an annual basis but will hit the expense line.

MR. DARREN RAINKIE: That's correct, sir. That's what this is depicting.

MR. ANTOINE HACAULT: Now, if we -- this table doesn't go out past 2022 but is it reasonable to expect that the same type of impact would continue over a twenty (20) year forecast period?

(BRIEF PAUSE)

MR. DARREN RAINKIE: I think so, Mr. Hacault. We haven't presented anything that goes past ten (10) years in the material but I think it's a fair representation.

MR. ANTOINE HACAULT: Sorry, I'm not too sure -- it would be a fair representation that it would be in the order of between 90 million and 100 million over the twenty (20) year forecast period that you do in your IFF?

MR. DARREN RAINKIE: Yeah, I think -- I think it's -- it's a reasonable proximate, Mr. Hacault. I'm agreeing with you.

MR. ANTOINE HACAULT: Now, and this is because I don't understand accounting, but if you remove over twenty (20) years in the order of 90 to $100 million a year from your capital, it's no longer being capitalized, is there an adjustment that needs to be done to the capital costs?

MR. DARREN RAINKIE: Yes. We have our total costs, and some of those costs get capitalize and some of them get expensed, and they have to equal your total cost so if you're no longer capitalizing it, it should reduce your capital.

MR. ANTOINE HACAULT: So that for Conawapa at 10 billion and some, and Keeyask at 6 billion and some, and all of the other capital costs, if you're going to be putting 100 million less in those pots every year for the next twenty (20) years, does Manitoba Hydro have to reduce its total expected capital costs for those projects?

MR. DARREN RAINKIE: Well, as Mr. Warden indicated some of the larger projects are, to a large extent, external charges that wouldn't be caught up in this change. But to the extent there's any internal labour on those projects, yes, they would be adjust -- adjusted in the capital forecast.

MR. ANTOINE HACAULT: I haven't been

able to find where you've made that $2 million -- or $2 billion adjustment.

(BRIEF PAUSE)

MR. DARREN RAINKIE: Mr. Hacault, you wouldn't be able to find that because it's in -- it's imbedded in all the projects in our -- in our CEF. So when we redid CEF12, we would have removed -- we would have used the new overhead rates that are projected and -- but you just see a total in CEF12. You don't see all the component parts of that.

MR. ANTOINE HACAULT: Help me understand that. I haven't seen a change in the estimated capital costs of Keeyask or Conawapa. They've remained exactly the same. And, in fact, they've gone up.

MR. DARREN RAINKIE: Well, Mr. Hacault, most of the charges to those projects, I think, would be external charges, so... And I don't -- I don't know how, in the material that you've seen, that you would see that, because you're just seeing a total project cost. So I don't think there's an omission, it's just that omission you haven't seen it in the material that you have in the CEF.

MR. ANTOINE HACAULT: Okay. So that in the CEF, whether it was the 12 or the CEF11 that tied in with IFF11 or IFF12, Conawapa hasn't changed at all, and Keeyask hasn't changed at all, and that's over half of the capital costs that you project to do over the next twenty (20) years, correct?

MR. DARREN RAINKIE: Sorry, those costs haven't changed at all? Both Keeyask and Conawapa have changed in CEF12. I'm not sure I follow your question, Mr. Hacault.

MR. ANTOINE HACAULT: I'd have to pull out the document, but as I recall, the estimate of the capital cost of Conawapa...

(BRIEF PAUSE)

MR. ANTOINE HACAULT: There were increases in the IFF11-2, and in this IFF12, they've remained constant. I haven't seen an adjustment of $2 billion.

MR. DARREN RAINKIE: Sorry, sir, I'm still not with you. When I look at our CEF12, as we talked about already, the total project cost for Conawapa has gone up $2.4 billion. So I'm not sure how you're concluding that there's been no change in the project cost. I'm at page 13 of the CEF12.

MR. VINCE WARDEN: Or perhaps another reference is in -- in IFF12, itself, page 11. As Mr. Rainkie indicated, the increase in IFF12 for Conawapa was 2.4 billion, for Keeyask, 583 million in IFF12 compared to the previous IFF.

(BRIEF PAUSE)

MR. ANTOINE HACAULT: You said I wouldn't see the calculations in the material that you've provided. Could you provide to me the calculations that show that you've made a reduction in the capital costs with respect to the accounting changes, assuming they're about in the order of $2 billion or whatever they are, to show us that you have actually made that change and reduced the capital costs?

MR. VINCE WARDEN: Mr. Hacault, you won't be able to see that specifically in the CEF, but if you'll recall discussion we had earlier regarding the methodology that's used for revising the capital expenditure forecast -- and perhaps if you want to turn to that. Again, if you have the IFF document handy, the tab under CEF12 does refer, if you look at -- if you look at...

(BRIEF PAUSE)

MR. ANTOINE HACAULT: What page are we at?

MR. VINCE WARDEN: We can look at page 29, 29 of IFF12. I don't know what exhibit number that is, but... Yeah, Exhibit Number 9. Manitoba Hydro Exhibit Number 9.

(BRIEF PAUSE)

MR. ANTOINE HACAULT: You understand my question, though? I'm not -- I just want to know whether Manitoba Hydro actually drew its attention specifically to accounting changes and reduced the capital costs of that project -- of the projects with respect to the accounting changes.

MR. VINCE WARDEN: Yes. And -- and, Mr. Hacault, I -- I can assure you that we have. It's just that being able to demonstrate that explicitly is difficult for us because of the methodology that we follow with the capital expenditure forecast revisions.

So you may recall we had a discussion

about the methodology we follow when new projects come in during the year and we only take the capital expenditure forecast to the Board once per year. When those new projects come in during the year, we handle that as what we call a target adjustment.

So I think I referred you to page 29, but probably better if you look at page 30. You can see there's a target adjustment at the very bottom of that page before the total. So when new projects are introduced we go -- we don't change the bottom line of the capital expenditure forecast, but we handle that as a target adjustment until such time as the forecast is subsequently re -- revised.

So given that we're now three-quarters (3/4s) of the way through the fiscal year that target adjustment number will be quite large until we get to the fall revision and then we'll update the capital expenditure forecast and incorporate all of those changes in the revised forecast that is presented to the board.

So with specific reference to the accounting changes, that would have been handled through an account -- a target adjustment incorporated in the update to the capital expenditure forecast when it was taken back to the board for approval.

So very difficult to -- to point you directly where those accounting changes would have been incorporated, but I can assure you they -- they have been incorporated in the capital expenditure forecast.

MR. ANTOINE HACAULT: I don't want to get into a lot of detail on this, but a lot of the capital expenditure costs were fixed well before any discussion of these accounting changes. Last time we went through a number of them and they aren't done every year with respect to every project.

MR. VINCE WARDEN: Yes, that's right. And I -- that's what I was attempting to explain. So if you were to compare this capital expenditure forecast that we have in -- that was revised in 2012, in the fall of 2012, and were to compare that on a line-by-line basis with the capital expenditure forecast that would have been prepared prior to the accounting changes -- so if we looked at the can -- capital expenditure forecast for 2007, for example, you would see a number of projects have changed for -- for that and other reasons.

There con -- projects are constantly being updated. As new information becomes available the project is -- is revised based on -- on the best information we have.

MR. ANTOINE HACAULT: So now, at least for the time being, and you've directed me to page 30, there is no target adjustment from the years 2015 up to 2022.

So for all the old projects that were estimated prior to these accounting changes, there is no target adjustment to reflect the accounting changes from 2015 to 2022, correct?

MR. VINCE WARDEN: Yeah. And, you know, perhaps I wasn't making myself totally clear. There wouldn't be a target adjustment of any significance at this stage because the -- the forecast is being refreshed. So the fore -- the forecast -- capital expenditure forecast is refreshed or revised in the -- in the fall of every year.

So any accounting changes that were re -- implemented prior to the fall of 2012 -- prior to November of 2012 would be reflected in the updated project costs and, therefore, would -- the target adjustment would be eliminated, the projects would be specifically revised and a new forecast presented to the Board for approval.

So, no, that's right, you wouldn't see any accounting adjustments beyond -- or in the future years because they've already been incorporated in the individual line items of -- for those projects.

MR. ANTOINE HACAULT: To the extent that those capital forecasts have been changed at all or looked at all, can you tell me, Mr. Warden, sitting here today with respect to each line when those forecasts were actually reviewed and put to the Board for approval?

MR. VINCE WARDEN: Well, as -- as I mentioned, each and every year the Board -- the Board of Manitoba Hydro will receive an updated capital expenditure forecast. So if there was any accounting change, and I'll make a proviso on that, there -- the ca -- the change to a capital project will only be made if it's plus or minus $1 million.

So we don't revise a project, a capital project, if it's -- if it's less than $1 million in total, so. But with that qualification, any accounting changes would have been reflected in the individual projects when it was presented to the Board, last presented to the Board of Manitoba Hydro.

MR. ANTOINE HACAULT: And that answer is -- is useful because I would expect, given that it's a hundred million dollar change and you've got a very long list of projects that are -- have small capital costs, that if we looked at each project and the impact on each project, you wouldn't have a million dollar cost variance caused by this accounting policy on that particular project, correct?

MR. VINCE WARDEN: Not in itself. But there are other -- other factors that contribute to changes in the accounting. Any accounting-related changes would be reflected at that time.

MR. ANTOINE HACAULT: Next I'd like to move on to some of the materials at -- starting at pages 348, they're updates and -- and the projection with respect to what happened on the IFRS issue.

Firstly, page 349, which is the status report update as of February 28, 2010. We've taken an extract, page 27 of 43.

(BRIEF PAUSE)

MR. ANTOINE HACAULT: Firstly, I direct attention to the second full paragraph on page 27 of 43. So that's at page 349 of our book of documents. It indicates that:

"IFRS requires at an item of PP&E
that qualifies for recognition as an
asset shall be measured at its cost,
which includes direct costs, such as

materials and
want to understand] all indirect
costs that can be directly
attributable to a specific project."

How do we define "all indirect costs"?

(BRIEF PAUSE)

MR. DARREN RAINKIE: I'm not sure that this is the wording out of IFRS but it's rather our generalization. I think the most important part of this paragraph is what's specifically excluded, item D, administration and other general overhead costs.

I'd have to go back to IAS 16 to see if that all indirect costs that can be directly attributable to a specific project is even in the standard. And the -- the thing here is, is that if -- if a cost is directly attributable it has to be incremental, nondiscretionary. And we've outlined this in an IR somewhere, but it has to be -- the attribution of that cost to an asset has to be a direct attribution. It can't be an approximation.

And -- and that's -- really the important words are "directly attributable" in the standard and the fact that specifically excluded are administration and other general overhead costs. That's really the -- the whole issue around these -- these overhead changes that we're making.

MR. RAYMOND LAFOND: Would indirect co -- if direct costs include materials, engineering fees, third party engineering fees, et cetera, would indirect costs not be, for instance, the allocation of financial cost?

MR. DARREN RAINKIE: That -- that is an indirect cost. I guess the -- the other thing I was thinking of is that, you know, you would have somebody actually working on a project. You'd have a supervisor. You might have a manager of construction, a division manager.

And what we've come to find, after extensive discussions with both our IFRS advisor, KPMG, and our auditor, Ernst & Young, is that they will allow the capitalization of the person -- the hands-to-tools person, as we call it, the person actually working, the supervisor. But unless the manager and division manager are working specifically on the project, we just can't take a part of their salary and allocate it to the project.

If the division manager is out in the field, working on the project, and they charge to the project, that's okay. That's directly attributable. But if the division manager is sitting in the office, writing up a strategic plan for their area, that's not something we could charge to the project.

So that's the whole thing is, is how far away from the actual work can you go, in terms of charging what we would call overhead costs?

CONTINUED BY MR. ANTOINE HACAULT:

MR. ANTOINE HACAULT: And that's contrasted with the allocation to customers when we decide which class pays what.

You don't take into account these considerations that you've just explained, correct?

MR. DARREN RAINKIE: Well, our cost of service study would take the accounting treatment of our costs - so whether they have been capitalized or expensed. And in a cost of service study, you have to account for your total revenue requirement 100 percent of your costs. So 100 percent of your revenue requirement is allocated out to the various customer classes. But you've already dealt with the accounting treatment, if you like, in terms of where those costs sit before they get allocated, whether they're capital or operating.

The other thing we should keep in mind is that some of the changes that we're talking about here will be implemented when we move to -- to IFRS, and they haven't been done yet. So we've got a mix of changes that have been made under Canadian GAAP and changes that will be made as we move to IFRS. And we should be careful, when we start talking about people in the accounting group and that, because some of those costs are still being capitalized today under CGAAP. And so -- particularly some of the management accounting staff. We removed the -- the corporate accounting staff a few years ago.

But at any rate we -- we need to be careful when we talk about these changes that we're very specific, because we've made certain changes already, and other changes are contemplated on adoption of IFRS.

MR. ANTOINE HACAULT: And this report was part of the previous general rate application. And at that time, the only changes that were identified with respect to what was going to be the cost is firstly set out -- there's other documents, but at page 28 of 43. So that's at page 350 of our book of documents.

A total of 5 million for 2008/2009; 4

million for the year 2009/2010; and, finally, up to 17 million for 2010/2011, correct?

MR. DARREN RAINKIE: Yes. Those -- those are the adjustments that were contemplated at that -- that point in time. I do think if you -- just as a point of clarification, if you flip to page 353 of your book of documents and you go down to the changes in 2010/'11, it has a total of $21 million there. There's an extra $4 million for interest on motor vehicles.

I think that -- that page 353 is a better representation of what was being done. I think we neglected to put the $4 million in the chart that's on page 350, so just with that caveat.

Now, the other thing I think is important is if you look at page 349, at the time frame we prepared this report, we were thinking that the proposed rate-regulated activities exposure draft would be approved, which is not the case any longer. It was -- it was allowing -- at that point, it was proposing allowing regulated utilities to embed -- continue to embed indirect overheads in their property, plant, and equipment, as had been the practice in the past. That exposure draft, of course, fell apart late in 2010. So I don't think that proposal is coming -- is coming back, Mr. Hacault.

So I guess all I'm saying is, as we go through documents, both in our jurisdiction over the years and in other jurisdictions, one (1) always has to be cognizant of what the understanding was, in terms of how the accounting was going to evolve at that point in time. That's why it's very difficult to pull a document from 2009 and say, Well, geez, you know, another company was doing this. Because it -- look at our situation. We've deferred, you know, two (2) or three (3) times IFRS since some of these documents were produced. So we have to be very careful about what the context was at the time.

MR. ANTOINE HACAULT: Now, you've correctly pointed out that there were changes. And I suggest to you, sir -- and we can go through the documents -- that by the time you provided your next update report -- and I say "you" -- the -- Manitoba Hydro as at October 31, 2010, by that time, it was known that the exposure draft wouldn't be proceeding?

And there's actually a change in wording in the reporting.

(BRIEF PAUSE)

MR. DARREN RAINKIE: Yes, I think at -- if I remember correctly, by about October 31st of 2010, I'm not recalling if it was official yet, but I -- I think there was an understanding that that exposure draft was being delayed, that the -- that the International Board was going back to reassess its priorities and whether or not it wanted to continue down this path.

MR. ANTOINE HACAULT: The reason I'm getting into some of this is to clarify one (1) of your previous statements that all of this had been reviewed at the risk hearing. But there was no discussion about this issue at the last risk hearing.

That was focussed on risk itself, not on accounting changes, correct?

MR. DARREN RAINKIE: No, I disagree with that statement. Manitoba Hydro filed a general rate application. The Public Utilities Board decided that it would also ha -- hold a risk review in conjunction with the general rate application. This report and our IFF10 was filed in either late December or early January of 2011 with the Public Utilities Board and all Intervenors.

As I recall, that hearing went from early January to early June, which is some five (5) months. I think there was forty-one (41) days of hearing days in which we reviewed both risk and GRA topics. So these changes were all embedded and laid out in IFF10. In fact, you have a page from the Board order that resulted from that hearing, Order 5/12, that actually has a line in it called "Accounting provisions," of 18 million in the first test year, 2010/'11; and 14 million in the second test year, 2011/'12, which is this very subject.

So I'm not sure how one would conclude that these changes were not reviewed at the 2010/'11 slash 2011/'12 GRA and risk review.

MR. ANTOINE HACAULT: Perhaps I didn't express my question quite clearly. There's a total of over a hundred million now. And if we look at page 356 of our book of documents...

(BRIEF PAUSE)

MR. ANTOINE HACAULT: This was a document dated in May of 2010, a part of the Manitoba Hydro filings. And the provisions that were put in for IFRS were in the order of 15 million at that time, correct?

MR. DARREN RAINKIE: That's correct.

IFF09 was the starting point of that application, but that process went on throughout 2010 and half of 2011, Mr. Hacault. And what I'm suggesting to you is when we updated -- well, when we provided IFF10 at the very start or before that hearing commenced, that we had included in that further additional accounting changes that were reviewed at that hearing. I remember talking to Mr. Peters about them on the record.

MR. ANTOINE HACAULT: But they were not in the order of a hundred million dollars. They were more in the order of 15 to $30 million, correct?

MR. DARREN RAINKIE: Well, sorry, sir, when you're getting to the hundred million, now you're adding in the changes that would be made under IFRS.

So are we talking about -- what are we talking about? Are we talking about the changes that have been proposed under Canadian GAAP up to that point, or are we talking about IFRS changes?

I thought you were suggesting to me that the changes that we were just reviewing that totalled $30 million were not embedded in the forecasts that were in front of the Board for that 2010/'11 and '11/'12 GRA. And I would suggest to you that the $30 million total changes was embedded in IFF10, which was part of this -- of that hearing. We filed it in

January. The hearing went till June, so -- and the Board reiterated that in the summary of operating costs in its Order 5/12.

So I don't think it -- I'm not sure at that point, in IFF10, if we had included the additional $37 million of IFRS changes or not. I think -- I think that didn't come until IFF11-2, which started this proceeding.

MR. ANTOINE HACAULT: That was what I was trying to get at, Mr. Rainkie, is that if we turn to page 357 of our book of documents, the CICA accounting changes and provision for IFRS, if we look at that document and the forecasts that's under the heading, "Total Costs," closer to the bottom of the page. And that was from the last GRA. We see that at the -- the date at the bottom left-hand corner, that's 2010.

The amounts that were being provided to the Board at that time are shown on that table for -- if I look down, the 2011/'12 forecast, there was $7 million of CICA accounting changes and a $15 million provision for IFRS, correct?

MR. DARREN RAINKIE: That's correct, sir. And then before the hearing, in the response to PUB Pre-ask 15A and 'B', we revised that to include the additional overhead changes that we were planning to -- to make in 2000 -- commencing in 2010/'11 as part of that filing.

At that point, there was some uncertainty about where rate-regulated accounting and that whole issue was going to go, so we didn't have any additional IFRS changes in IFF10. But certainly, the changes that we made in 2010/'11 were included in the information that the Board looked at as part of the 2010/'11 and '11/'12 GRA.

MR. ANTOINE HACAULT: And by the time we jump to this GRA -- I've reproduced at page 358 of our book of documents, under the heading, "Total Costs," about five (5) or six (6) line items down -- the IFRS changes have jumped from 15 million to seventy-one million, five seventy-four (71,574,000), correct?

MR. DARREN RAINKIE: Well, in IFF09, the provision for IFRS was just at a -- a high-level provision. By the time we got to IFF11/12, we had a much more granular calculation of what the IFRS changes are. But these -- these two (2) pages are -- are moving about two and a half (2 1/2) years, in terms of time frame, from January 2010 to July of 2012.

I guess what I'm trying to indicate to

the Board is we didn't leave the Board hanging in that interim period. There was information filed with IFF10 that included what we knew at that point in time.

MR. ANTOINE HACAULT: But that's my point. We didn't know much, as you say. It was just like a -- a ballpark at $15 million. And by the time we come to this Application, at page 358, if we go further down that same table, at the -- close to the bottom, there's a heading that says, "OM&A Attributable to Electric Operations Per Annual Report." And then there's the heading, "Less." First we see the heading, "Subsidiaries." And right under that, "Accounting Changes."

Do you see that number?

MR. DARREN RAINKIE: Yes. But the one thirty-nine (139) I don't think is -- is comparable to the 15 million. In fact, I'm not even sure the seventy-one (71) is comparable to the 15 million, because the 71 million would include both changes to reductions in overhead capitalized, plus we would now be expensing about $40 million of rate regulated assets, primarily DSM costs.

So, you know, when -- when you move between these tables we have to understand what was included in each figure. So half of that $71 million number had nothing to do with overheads; it was to do with the fact that we would now be expensing rate-regulated assets as the costs were incurred.

MR. ANTOINE HACAULT: Thank you. And that's my point: there's a number of items being added. And all of those accounting changes, including your CGAAP changes, total now, instead of about $30 million under that line item, a hundred and thirty-nine million nine hundred and seventy-four (139,974,000) for the year 2013/2014, correct?

MR. DARREN RAINKIE: Well, that was the calculation when we thought that we were going to implement IFRS in 2013/'14. But, of course, that's been deferred to 2014/'15. But that $139 million number includes not only IFRS changes, but it includes all other changes that have occurred back to 2008/'09 under Canadian GAAP.

So I think we need to make sure that that's clear that's not -- that shouldn't be looked at as just an IFRS impact; that's the cumulative total of all accounting changes as it relates to operating costs.

MR. ANTOINE HACAULT: I think that's what I had said. It was a cumulative amount of your CGAAP changes and proposed IFRS changes. And now

Manitoba Hydro has filed a revised estimate of those impact -- the impacted changes under IFF12. And that's at page 359 of our book of documents.

So that -- the IFF12 information for the 2014 and '15 year, if I'm going under the heading, "Total Costs," I find IFRS changes. It's shown as 61 million four thirty-seven (437).

Do you see that?

MR. DARREN RAINKIE: That's correct.

MR. ANTOINE HACAULT: So you've revised your estimate by reducing it about $10 million?

(BRIEF PAUSE)

MR. DARREN RAINKIE: Mr. Hacault, I think in your book of documents there's the revision to a table that we prepared in poi -- in -- in Appendix 5.6. I think it's attached to the revised IR PUB/Manitoba Hydro 1-42. I think we should find that because I think it's easier to go through that piece of paper and understand what's included in the -- in the numbers, because even I'm getting foggy with all the different types of presentations over the years.

I'm just going to go locate that for the Board, if you would indulge me for a second.

MR. ANTOINE HACAULT: Sure. And just before we go to that I just want to make sure we've got one (1) other number on -- on the record with respect to the page 359 in our document -- or book of documents. The total now revised number of accounting changes has gone up to -- or from one hundred and thirty-nine million nine hundred and seventy-four (139,974,000) to a hundred and forty-three million two hundred and eleven thousand (143,211,000), correct?

Then we can get into what you want to get into, sir.

MR. DARREN RAINKIE: You know, Mr. Hacault, that -- I think that -- that on page 3 -- on page 379 of your book of documents is the correct number. I -- I think that there's something wrong with page 359. I don't think it -- I -- I think page 379, as it relates to operating costs, is the correct representation of accounting changes embedded in IFF12. And we come to a figure of about $137 million.

After thinking about this over the -- over the Christmas break, and I think -- and -- and redoing the analysis in PUB 142, we came to the conclusion that the one thirty-seven (137) -- hundred -- $137 million num -- number in 2014/'15 is the correct representation.

So I -- I think this is probably the best chart to use before the Board, because what you see is that there are overhead changes; there are changes to rate regulated accounts, because now those costs would be expensed; there are changes to pension and benefits; there are many different layers that relates to this number, not just overhead changes.

THE CHAIRPERSON: Could you -- could you give us the references again, please?

MR. DARREN RAINKIE: Sorry, sir. I'm looking at page 379 of MIPUG's book of documents. It's page 13 of 13 of Manitoba Hydro Exhibit 55.

(BRIEF PAUSE)

MR. DARREN RAINKIE: In Tab 20.

THE CHAIRPERSON: Thank you. We've got it.

(BRIEF PAUSE)

CONTINUED BY MR. ANTOINE HACAULT:

MR. ANTOINE HACAULT: So if I keep my finger at both numbers, that being page 359 and 379, all the numbers under total accounting changes are consistent until we hit the 2014/'15 forecast, correct?

MR. DARREN RAINKIE: That's correct.

MR. ANTOINE HACAULT: And what you're saying is that here, it never ceases to amaze me again, but somehow the accounting pen has changed from -- for a swing about $7 million between those two (2) documents, both shown to be dated, on the bottom left-hand side, January 1 -- or January 7 of 2013.

MR. DARREN RAINKIE: I'm not sure it's the swing of the accounting pen but -- or just too many documents to try to file at once after Christmas, but I -- I think that page 379 -- well, I know page 379 is what we believe the correct representation is. I think we made an error in page 359.

(BRIEF PAUSE)

MR. ANTOINE HACAULT: And I just wanted to -- sorry, you're still looking for something?

MR. DARREN RAINKIE: Sorry, I was just trying to remember what that change is. But, Mr. Hacault, the $136 million number is our evidence. I -- I certainly could investigate the difference and let you know what it is, but the one thirty-six six-o-three (136,603) is the right number. That's the number we should be using for our discussion purposes.

MR. ANTOINE HACAULT: Can you undertake then to file what I'll call an updated page for page 359, with the explanation as to why the hundred and forty-three million two hundred and eleven (143,211,000) number is incorrect. And it would show also the total bottom line number, which is on that table. The table at page 379 does not have that additional line item at the bottom of page 389. Could I have that undertaking?

MR. DARREN RAINKIE: Yes, we'll -- we'll revise page 359 from the current presentation in IFF12, and with an explanation of the difference.

--- UNDERTAKING NO. 94: Manitoba Hydro to revise page 359 from the current presentation in IFF12, and include an explanation of the difference

CONTINUED BY MR. ANTOINE HACAULT:

MR. ANTOINE HACAULT: Now, I just looked up here in the last -- with respect to the last hearing, what the IFF had shown. It was under PUB Pre-ask 15 under the last rate hearing, and, subject to check, sir, for the years 2011/'12 what was reported to the Board as being a provision for accounting changes in CIC accounting changes were a total of twenty-two million five hundred (22,500,000).

MR. RAYMOND LAFOND: What are we looking at now?

MR. ANTOINE HACAULT: This is not a document that was filed. It's because the Witness's memory was that he had updated the IFF under those proceedings to show further accounting changes. So we just looked up the previous matters, and I said, Subject to check, sir, if you can look at that pre-ask and confirm that the only accounting changes shown to the Board at that time under that IFF for the year 2011/2012 were 9 million with respect to CIC accounting change and thirteen million five hundred (13,500,000) with respect to provision for accounting changes.

MR. DARREN RAINKIE: I'm not on the same page with you at all. I'm looking at the re -- there was a revised PUB Pre-ask 15B, and if we look at it, we have CIC -- CICA accounting changes of 9 million. There's a footnote there saying that there were other CICA accounting changes totalling 5 million in eight (8) -- 2008/'09, and 4 million in 2009/'10, that were embedded in the cost element items. And there's a provision for accounting changes of $18 million in 2010/'11 forecast and $13 1/2 million in 2011/'12 forecast, sir. And that's a revised pre-ask.

CONTINUED BY MR. ANTOINE HACAULT:

MR. ANTOINE HACAULT: Perhaps, we can put it on the record so everybody sees what the Board had at that time.

MR. DARREN RAINKIE: I would be more than pleased to do that, sir. If there's any, you know -- if there's any question in terms of what we put, those provisions are there.

MR. ANTOINE HACAULT: I guess we can do that after today and give it an exhibit number. Is that acceptable, Ms. Ramage?

MR. DARREN RAINKIE: I think we can reproduce it perhaps at the break. I have it in my book.

(BRIEF PAUSE)

MR. ANTOINE HACAULT: Next, I'll move to operating and maintenance expenses. And we have, at Tab 21, an extract of the transcript of the discussion I had with Mr. Scott Thomson. And, in that line of questioning, I had inquired whether he was working with a zero-based budgeting for Manitoba Hydro as he had previously done. And, Mr. Thomson, at page 370 of the transcript, indicating that he would be using a modified zero-based budgeting approach, and on to page 371, that there were to be a challenge each year as to what the activities that they were taking were still necessary to do so, et cetera.

Now, I believe my question is, firstly, addressed to Mr. Warden. And this I show a document, Manitoba Hydro Exhibit 28. It was an undertaking by Mr. Warden -- and it's not part of our book of documents unfortunately -- with respect to Manitoba Hydro's comments on the BC-Hydro review report. And to put that into context, Mr. Warden, can you explain what BC Hydro had undergone and why it was of interest to Manitoba Hydro to see as to whether any of those recommendations in that report would be useful for Manitoba Hydro?

So it was -- Manitoba Hydro Exhibit 28 is my reference.

MR. VINCE WARDEN: Well, just by way of general comments, Mr. Hacault, BC Hydro did undergo a -- an extensive review of their operations and -- and produced a report which has been filed as -- no, sorry, it hasn't been filed. Our comments on that report haven't been filed.

But, nevertheless, BC Hy -- did -- Hydro did prepare a comprehensive report following a review of their operations. And Manitoba Hydro took advantage of that opportunity to review that -- obtain that report, review what had been done there, and determine whether there were any recommendations that flowed from that review that would be applicable to Manitoba Hydro.

And we did identify a number of recommendations that would, in fact, have some relevance to Manitoba Hydro, and we did undertake to do further work on -- on those particular recommendations that we identified.

MR. ANTOINE HACAULT: Was that report marked as Exhibit 28 done under your direction, sir?

MR. VINCE WARDEN: Yes, it was.

MR. ANTOINE HACAULT: And it was completed, I gather, in November of 2011, according to the date on the front page of that report.

MR. VINCE WARDEN: That's right.

MR. ANTOINE HACAULT: Sir, could you provide us with -- or is there, I guess, a status update with respect to this report and any measurable results resulting from those actions?

MR. VINCE WARDEN: The -- there's no formal document that I can file with these proceedings. I do, on a regular basis provide -- or on a -- not on a regular basis, but on a periodic basis I do provide an update to our audit committee as to any actions that we have taken as a result of this review.

MR. ANTOINE HACAULT: And is that -- is there kind of a recent version that could be filed with this Board? The --

MR. VINCE WARDEN: No, no. The -- any reports that I've provided to the audit committee of Manitoba Hydro, or to the Board, have been verbal.

MR. ANTOINE HACAULT: Okay. Now are there any measurable results? In other words, in the last a little bit more than one (1) year has there been any measurement as to whether or not there has been any impact with respect to any of the action items on the actual O&M costs and the rec -- recommendations?

MR. VINCE WARDEN: Well, various of these initiatives are in progress. I -- I -- you know, I'd really have to go down the list of each one. So there's fifteen (15) -- or seventeen (17) recommendations here that we determined were of some relevance to Manitoba Hydro. So -- you know, for example, if we're referring to the document on page --

page 2 of that document, Item number 3:

"Establish an information technology coordinating committee at the corporate level to confirm that all information technology projects are fully aligned with strategic objectives."

So that committee was formed at Manitoba Hydro. We thought that was a good idea. We did have an number of different committees at the business unit level that looked at priorities within the business units, but we didn't have an overall corporate committee.

So that's an example of one (1) initiative that we did und -- undertake that has brought some benefits back to Manitoba Hydro.

MR. ANTOINE HACAULT: Well, let's let -- just look a couple ones. I had hoped that there was going to be some kind of a report on measurables that were obtained as a result of the recommendations. But Recommendation number 2:

"Investigate whether cost reductions can be achieved through increased use of external resources."

Were there actually -- was there a

report on that? And were you able to get cost reductions through increased use of external resources?

MR. VINCE WARDEN: So we have done some work on this, comparing some of our unit costs of doing work internally at Manitoba Hydro versus outsourcing some of that work. And while I don't have a report that I can put in front of this Board, generally speaking, we determined that our -- that our internal costs were very competitive with what can be -- could be derived from the external market.

So -- and I -- and I think that's sort of a general theme that ran through each of these recommendations, is that when we started looking at other jurisdictions. For example, Item number 4, "undertake a comprehensive supply chain management and logistics review," bef -- before we -- we spent a lot of money on this initiative, we did some high level screening and determined that in fact the supply chain processes, procedures, logistics in -- in place at Manitoba Hydro were probably in advance -- advanced to -- compared to some of our counterparts. And, therefore, we decided not to pursue this comprehensive review, because we thought that there was little that could be gained from this.

So the -- the recommendations that were

identified here were -- were done so with the thought that we would consider them. We -- we've done that. And -- and where appropriate, we are pursue -- making some changes. But in the final analysis there really hasn't been a lot that we've changed as a result of -- of this review.

MR. ANTOINE HACAULT: And I'll just ask one (1) or two (2) more questions on this. Could you turn to page 22 of the report. So page 22 under the heading, "Operating Costs, Policy, and Processes."

My understanding is that what follows under that heading were the actual recommendations made to BC Hydro.

First, is that correct?

MR. VINCE WARDEN: Yes, that's correct.

MR. ANTOINE HACAULT: So I'm reading number 5, which was not retained by Manitoba Hydro. And the recommendation in -- to BC, I'm quoting here:

"Improve its budgeting and forecasting processes by periodically undertaking a zero-based budgeting exercise to obtain a better understanding of their incremental costs and improve overall cost effectiveness."

Manitoba Hydro decided not to retain that recommendation, sir?

(BRIEF PAUSE)

MR. VINCE WARDEN: I'm just trying to think of the structure of this -- of the summary that we were referring to on page 2. If you look at Manitoba Hydro number 9, BC Hydro Recommendation number 5:

> "Review budgeting and forecasting processes to ensure that all programs are cost justified and that appropriate measures are in place to ensure the cost..."

So, yes, we did recognize that and carried that forward into -- into Manitoba Hydro's recommendations that we would at least investigate.

MR. ANTOINE HACAULT: And we had this discussion at the last hearing, too. Hospital facilities and other facilities go to zero-based budgeting exercise, as recommended here.

So what you're telling us, Mr. Warden, is that you're at the point of investigating whether it might be a good idea, but Manitoba Hydro has not --

decided not to, at this time, adopt that policy of undertaking a zero-based budgeting exercise?

MR. VINCE WARDEN: Well, I think Mr. Thomson alluded to this in his remarks, and that is we have to look at all core activities in Manitoba Hydro. So he's starting with a strategic review of Manitoba Hydro, looking at all the activities that are performed there, determining that what is being done is absolutely essential.

So, you know, it's a form of zero-based budgeting that isn't being initiated at the strategic level. Once those core iden -- activities have been identified, the next step will be to assign the appropriate resources to those core activities, or those activities that are deemed priorities.

So I think we have to make sure we do things in the right sequence, and that's what's being undertaken now at -- at Manitoba Hydro through the strategic planning process.

MR. ANTOINE HACAULT: But I want to make sure, 'cause when we talked about 'hold the line', and there was a discussion I -- between some of the Board members and yourself of what the 'hold the line' budgeting meant, it didn't mean ignoring inflation, correct? There was inflation based into the -- the budget?

MR. VINCE WARDEN: Well, there's recognition that inflation will occur, although our financial forecast does include the provision for inflation at the 2 -- 2 percent level, recognizing that we are growing each year adding customers to the system. So holding -- holding our cost structure, 75 percent of which is made up of wages and salaries -- holding our cost structure to 2 percent will be a challenge, will be a significant challenge for Manitoba Hydro in -- in itself.

MR. ANTOINE HACAULT: But the budget doesn't even hold the line at inflation, does it, sir?

MR. VINCE WARDEN: Oh, it's below inflation. I -- I think our evidence indicates that; that over the five (5) year period, ending in the test years, our cost of operating and min -- administrative expenses is below the rate of inflation. I can pull out that reference if you like, but that's our evidence.

MR. ANTOINE HACAULT: Yeah, we'll get to that, and we can look at the specific numbers and see how those numbers have been arrived at from your perspective.

Now, I said I would ask two (2)

questions with respect to what was on page 22. The second one -- sorry, before I do that: So although facilities like hospitals, et cetera, do a zero based, and there's no huge magic to that, we're not there yet with Manitoba Hydro for all the reasons that you've explained? You want to implement it eventually?

MR. VINCE WARDEN: Well, in effect we do do zero-based budgeting. We start off with the wages and salaries of all the employees at Manitoba Hydro. So 75 percent of our total operating administrative costs are comprised of wages and salaries.

So after you identify all the employees that are performing duties at Manitoba Hydro and it -- and include those in the budget, in effect you started with a zero base. You started with identifying all of the employees that are currently performing work for Manitoba Hydro. The question is, is that work what we absolutely need to do going forward? And that brings us back to the strategic planning exercise to ensure that we're doing the right things. But once you determined you're doing the right things, then, in effect, our budgeting process is zero based.

(BRIEF PAUSE)

MR. ANTOINE HACAULT: So is Manitoba Hydro looking at not only should we do it, but also the best way to do it? Because there was a discussion with one of the Board members on, sometimes we can actually reduce costs and get a better result.

MR. VINCE WARDEN: The only way we're going to reduce costs in a meaningful way at Manitoba Hydro is to reduce numbers of employees. That makes up the bulk of our operating administrative costs. We're -- we're hearing though from -- from people that are involved with -- with the aging infrastructure issue, that, in fact, we're going to need more employees to address that issue.

So that's why it's so important for us to look at what it is -- where we want to place our priorities; why it's so important we go through this exercise and identify those core activities; what level are we prepared to allow reliability to slip in order to meet certain cost objectives? That's the real question we're going to have to address, because if we start reducing employees, if that happens -- I'm not saying it will. But if we start reducing employees, there will be consequences. There will be consequences on safety, reliability of the system. It can't be avoided.

MR. ANTOINE HACAULT: And is that because a hundred percent of your employees are assigned to maintaining the capital, Mr. Warden?

MR. VINCE WARDEN: Not the capital -- not only the capital, but the capital and the operating and the support activities that are associated with -- with capital and operating.

MR. ANTOINE HACAULT: So there are other areas which can be looked at where the best way of providing a service and the cheapest way of providing a service could -- could be looked at on a zero-based basis, but it hasn't been done yet?

MR. VINCE WARDEN: Sure. We can look at how much we spend on regulatory, for example. Are we getting the best value for the -- for the dollars that we spend on reg -- regulatory activities? And we spent a lot. And I'm not just referring to this proceeding, but there's environmental regu -- regulations that we have to adhere to that we didn't -- if you look back ten (10) years ago, we did not have the same types of regulations that we are required to main -- comply with today.

So we'll have to -- of course, we're going to not break the law. We have to adhere to regulations that are statutory in nature. But there are cost pressures on Manitoba Hydro today that were just not there in years gone by. We're going to have to decide which of those things, if any, that we can forego doing.

MR. ANTOINE HACAULT: The last --

MR. VINCE WARDEN: Because we -- we -- because we realize, of course, that, you know, there is a responsibility in Manitoba Hydro to do everything possible to minimize its costs.

MR. ANTOINE HACAULT: Sorry, I didn't mean to cut you off.

On page 22, there was item number 6 of the recommendations to BC Hydro:

> "Executive management team and the board of directors established stronger targets controls] on all spending of a discretionary nature."

Now, I didn't see that being retained. Is that because there's already -- this is something the board of directors is already doing, setting targets and controls?

MR. VINCE WARDEN: Yes. And I think that's referenced in the first item. So we -- we do acknowledge there are cost-constraint measures that are currently in place, and those will be maintained and expanded to the -- to the extent possible.

MR. ANTOINE HACAULT: Are they from the board? And what are the targets?

(BRIEF PAUSE)

MR. VINCE WARDEN: The -- I think we have identified previously what some of the measures that were in place, but the targets are incorporated in the IFF. So the -- the -- what we have direction from our board is to achieve the targets that are set out in IFF12. And, as I mentioned earlier, that is going to be a challenge to achieve that.

THE CHAIRPERSON: I wonder if it wouldn't be an opportune time to take a ten (10) minute break.

Would you mind giving me the reference, Mr. Warden, that you were going to cite regarding OM&A, the evolution at OM&A costs? You were -- you were --

MR. VINCE WARDEN: Yes. I believe it's -- wait, what -- probably the best reference is Exhibit 15, Exhibit 15, page 19, in which we indicate that over that five (5) year period, 2010 to 2014, including the two (2) test years, we see that the percent increase in

OM&A, including actual and projected, is 1.68 percent on an annualized basis, compared to the increase in the CPI of 1.82 percent. So my reference was the fact that we were coming in below inflation for that period of time.

(BRIEF PAUSE)

MR. RAYMOND LAFOND: Mr. Warden or Mr. Rainkie, we've mentioned several times that employees -- employee costs, wages and benefits, were approximately 75 percent of operating and administrative expenses.

If I look at your annual report on page 57, the $472 million of expenses in operating and administrative, is the 75 percent just a very rough figure, or is it just about right on?

MR. VINCE WARDEN: Sorry. If you look at the same exhibit, Exhibit 15, page 21, so this shows the components of OM&A. So salaries, including overtime and benefits, represent 77 percent of the total OM&A for 2011/'12.

(BRIEF PAUSE)

THE CHAIRPERSON: Let's take ten (10) minutes.

--- Upon recessing at 2:59 p.m.

--- Upon resuming at 3:20 p.m.

THE CHAIRPERSON: I believe we're ready to resume the proceedings. Any documents to -- to enter into the record?

MS. PATTI RAMAGE: Thank you. We have two (2) documents to file at this point. The first document, which will not have an undertaking attached to it, but it was the document that Mr. Hacault and Mr. Rainkie were discussing, and I want to be very careful to identify it correctly so that we understand.

It says, "PUB/Manitoba Hydro Pre-ask 15 Revised," at the top. But this is from the 2010 GRA, not from the current GRA. So that is a question and answer submitted at that GRA. And the -- the attachment is three (3) -- it's -- it's four (4) pages in total, because there's 'A' and 'B' to that question. But they all come out of the previous GRA. It's not a pre-ask in this GRA, to be clear. We suggest that be marked as Manitoba Hydro Exhibit 103.

--- EXHIBIT NO. MH-103: "PUB/Manitoba Pre-ask 15 Revised" from 2010 GRA

MS. PATTI RAMAGE: And the other document is Manitoba Hydro Undertaking number 68, which is Manitoba Hydro's filing of an MRC, RIM, and levelized utility cost calculations, including all assumptions that were considered as part of the calculations for instantaneous electric and tankless natural gas water heaters. And as I -- that will be Manitoba Hydro Exhibit 104.

--- EXHIBIT NO. MH-104: Response to Undertaking 68

CONTINUED BY MR. ANTOINE HACAULT:

MR. ANTOINE HACAULT: So if we -- for the benefit of the Board, if we look at Exhibit 103, the second page in, when we were having our discussion of what was included and provided to the previous Board, if you go to the right-hand column, year 2011/'12 forecast, and you go down to the -- nearly the bottom, you'll see two (2) numbers, one which is $9 million. That's in the CICA accounting changes. We were discussing that number.

And we also discussed the second line,

the provision for accounting changes. And we had discussed the 2011/'12 number of thirteen million, five hundred (13,500,000), and also the number to the left, the $18 million. And finally, Mr. Rainkie identified the star at the very bottom of the document, which says:

"Other CIC accounting changes totalling $4.6 million in 2008 and '09 and 4 million in 2009/'10 are embedded in the total costs."

And what we were doing is comparing that to our page 357 in the book. So if you look at those lines and what is now being presented at page 357 of our book.

(BRIEF PAUSE)

MR. ANTOINE HACAULT: The -- if we look at the '09, that's at page 357, that there was a $7 million number in that same area for 2011/'12 and $15 million number.

MS. PATTI RAMAGE: Mr. Hacault, is there -- are you asking a question? I wasn't sure.

CONTINUED BY MR. ANTOINE HACAULT:

MR. ANTOINE HACAULT: No, but I was just trying to relate because the Board members didn't have these documents when I was asking the questions.

So, Mr. Rainkie, can you confirm that what's at page 357 is the IFF09 first?

MR. DARREN RAINKIE: Yes, I can confirm that. And of course in IFF09 we assumed that IFRS would be implemented in 2011/'12.

MR. ANTOINE HACAULT: And then the Exhibit 103 was the updated IFF10, correct?

MR. DARREN RAINKIE: Yes. And at that point, we assumed that IFRS would be implemented in 2012/'13. I si -- I think that was the point I was trying to get across from (sic) you, is that we had indicated in IFF10 at Manitoba Hydro Exhibit 103 what our planned accounting changes were for the two (2) test years that were before the Board, 2010/'11, 2011/'12.

This chart doesn't have anything on IFRS because, at that point, IFRS had been deferred to '12/'13. So as I said before, you have to be very careful when you move between these forecasts that you recognize what was happening at this point in time.

Between 3 -- page 357 of your book of documents and Manitoba Hydro Exhibit 103, there was a couple of important changes. First of all, IFRS was deferred from 2011/'12 to 2013/'14 -- sorry, 2011/'12 thir -- 2011/'12, 2012/'13.

And explicit in IFF10, I think, was the fact that while the rate regulated exposure draft had been put on hold, we were preparing IFF10 when that was being put on hold. And we, at that point, the industry, the CEA had planned to have a consultation with the big four (4) accounting firms to see if rate-regulated accounting would still work. We were putting position papers and such together.

So it was still, at that point in time, very hopeful that we could convince the big four (4) accounting firms that that would still work. So IFF10 was prepared on the assumption that rate-regulated accounting would continue.

And, of course, once we flipped to page 358 of your book of documents, and we get into IFF11-2 now, the assumption had changed. The assumption was that rate- regulated accounting would no longer prevail, so. And then as -- it's not in your book of documents on this page, but somewhere, as we move to IFF12, IFRS is then deferred one (1) more time from '13/'14 to '14/'15.

So, as we look at these tables we have

to make sure we understand what the IFRS implementation date was assumed at that point in time and what the interpretation of IFRS was at that -- at that point in time.

So just to simply take the same line on -- on each chart and compare it isn't -- isn't going to work because in Manitoba Hydro Exhibit 103 IFRS isn't on that page at all because it -- IFRS had assumed to be deferred to 2012/'13 at that point.

MR. ANTOINE HACAULT: Thank you. So I take it that your position was that at the last Board hearing IFRS was no longer on the table and wasn't considered by the Board? It wasn't necessary?

MR. DARREN RAINKIE: No. What I'm saying is in the test years there was no consideration of IFRS in the two (2) test years that were before the Board because we had already made the decision to defer IFRS until 2012/'13 at that point in time.

But I wanted to make it very clear that at the start of the last hearing, those accounting changes that we made in 2010/'11, the removal of interest on common assets, the removal of interest on motor vehicles, and the reduction of overheads on some of our departments was known to the Board.

Because I wasn't quite sure if your

question was, Well, the Board didn't understand the accounting changes that Manitoba Hydro was proposing in 2010/'11 because that wasn't put forward until IFF10. And I was suggesting, I think, to you that the material was provided to the Board in January of 2011, the hearing went through till June, there was forty-one (41) days of hearings.

So in fact, these numbers, the provision for accounting changes of 18 million and 13 1/2 million are reiterated in the operating cost section of Board Order 5/12. So I think there's lots of evidence to conclude that the Board when they made their rate decision in IFF -- sorry, in Order 5/12 knew what we were planning, Mr. Hacault.

That's -- that's -- I think -- hopefully we've cleared that up because I think there was some suggestion that the Board -- because we started off with IFF09 through that very lengthy proceeding that somehow the Board was unaware of our 2010/'11 accounting changes that we had planned and I -- I wouldn't accept that.

MR. ANTOINE HACAULT: I think we'll have to agree to disagree. The only thing we appear to agree on is that at that time you've indicated what the numbers were and they were nowhere near the total $130 to $140 million of changes now being put before this Board, correct?

MR. DARREN RAINKIE: Well, Mr. Hacault, you're now talking about IFRS which isn't on this Exhibit 103. And you're also talking about further accounting changes now that -- now that we assumed that rate-regulated accounting is no longer available.

You're also talking about further accounting changes because we're now expensing rate-regulated assets. We're talking about further changes because our pension discount rate went down. So it's not an apples-to-apples comparison. We couldn't have provided to the Board, at that point in time, what we didn't know.

MR. ANTOINE HACAULT: And that was my point. So thank you for clarifying that. If they didn't -- you didn't know it you couldn't present it to the Board and now we know it.

MR. DARREN RAINKIE: I don't see what that had to do, sir, with the decision about 2010/'11 and 2011/'12 rates. I -- I guess that's the point of your position I don't understand.

MR. ANTOINE HACAULT: Going back to Exhibit 28, Mr. Warden, I just want to confirm your understanding. This was the BC Hydro report and recommendations.

Referring to the actual BC report, am I correct in understanding that this was an external review, it was not a review conducted by the Utilities Board in that province?

MR. VINCE WARDEN: Yes, that's my understanding as well.

MR. ANTOINE HACAULT: And not in this report, but we've previously, I believe, referred to it there was a cost-cutting directive issued to BC Hydro by the government, I believe. It related to staffing. We had that discussion, I'm not going to repeat it.

MR. VINCE WARDEN: Yes, yes, I recall that.

MR. ANTOINE HACAULT: Could you now turn to -- I believe it's Tab 21, the -- page 384. So at page 384 of our book of documents.

Have you located that?

MR. DARREN RAINKIE: I have that, sir.

MR. ANTOINE HACAULT: Now flipping on to page 385, this -- Manitoba Hydro is reporting that the actual vacancy rates for the last five (5) years are consistently higher than what the forecast rate was?

(BRIEF PAUSE)

MR. DARREN RAINKIE: I think we should understand what that 6.2 percent number forecast for '12/'13 is.

MR. ANTOINE HACAULT: That wasn't my question. Could you answer my question first? Then you can proceed to provide an answer to something else. That's okay, but please answer my question.

MR. DARREN RAINKIE: Can you repeat the question, Mr. Hacault.

MR. ANTOINE HACAULT: For the five (5) years, 2007/2008 to 2011/2012, in each year, the actual vacancy rate was higher than what was forecast?

MR. DARREN RAINKIE: Yes, that's correct.

(BRIEF PAUSE)

MR. ANTOINE HACAULT: Now, if you want to, sir, you can explain the six point two (6.2). I don't want to prevent you from providing the testimony that you want even though it's not in response to a question.

MR. DARREN RAINKIE: Well, I think what

I'm trying to do is help the Board understand the material, Mr. Hacault, but...

This 6.2 percent is, I guess, a composite calculation. It's calculated by -- by going through and after each business unit, division, and department has done its detailed budgeting and has developed their assumptions about staff vacancies and hiring, the six (6) point -- I think there's a misunderstanding, perhaps, in the Information Request. The six point two (6.2) is some type of an assumption that we -- that we tell, you know, every division, every department, plan for a 6.2 percent vacancy rate.

The 6.2 percent comes out of -- after all the divisions and departments have planned what they feel they're going to do and the timing of their hires and the timing of retirements, et cetera, that's a calculation, an output calculation as I refer, after we consider all detailed plans in the various budgets by division and by department.

So some departments may have a higher vacancy rate, some may have a lower vacancy rate. So I just wanted to make sure that we understood what this calculation is, because the way it's framed here, you might not get that connotation.

MR. ANTOINE HACAULT: So am I correct

in understanding that for each year that's shown on this table, 2007/2008 going up to 2012/2013, the same process was used? You got input from all your divisions, came to a forecast, and we show, for example, in 2007/2008, the result of that input from all your divisions was a forecasted vacancy rate of 5.2 percent?

MR. DARREN RAINKIE: That's correct.

MR. RAYMOND LAFOND: Can I conclude that you -- you actually do plan not to fill all positions but rather to have about 6 percent of positions not filled, but the actual reality is that there's usually a percent or two (2) more? So the -- it is plan, it's not just -- not to fill there -- these positions?

MR. DARREN RAINKIE: Well, it could be -- it could be planned. It could be timing, too. Somebody could assume we're filling position in March, and for whatever reason, we might not fill it until two (2) or three (3) months later. I think when you multiply that by the number of employees that we have, you can get a, you know, a difference between an actual and a forecast number.

MR. RAYMOND LAFOND: I understand that the difference between actual and forecast would be mostly timing, but the forecast would include just a minor portion of timing. The balance would actually be a plan?

MR. DARREN RAINKIE: Yes, that's correct.

MR. RAYMOND LAFOND: Thank you.

CONTINUED BY MR. ANTOINE HACAULT:

MR. ANTOINE HACAULT: Now, could everyone turn to page 399 of our book of documents. Same tab, page 399.

(BRIEF PAUSE)

MR. ANTOINE HACAULT: The other page that goes with the diagram on this page is the next page, 400. Sorry, it's 402. My page number is punched out here, so... It's the last page of that tab. It's page 10 of 10 on the bottom right-hand corner if your page number is punched out.

(BRIEF PAUSE)

MR. ANTOINE HACAULT: So that -- the

diagram, I suggest to you, tracks with -- instead of just showing the numbers shows graphically what's happened with respect to the various IFFs starting from IFF02-1 up to IFF12.

Is that a fair assumption to proceed on, Mr. Rainkie?

MR. DARREN RAINKIE: Yes, that's -- of course this is not our document but Mr. -- this is Mr. Bowman's document, I think. But that's my understanding.

MR. ANTOINE HACAULT: So that if we look on page 399 the forecasts of Manitoba Hydro are shown very close to the bottom in my copy in blue dash. Have you located that?

(BRIEF PAUSE)

MR. DARREN RAINKIE: Sorry, Mr. Hacault, can you repeat that question?

MR. ANTOINE HACAULT: There's the lowest line which shows the lowest level of OM&A has a little box, IFF02-1. Have you located that?

MR. DARREN RAINKIE: Yes, I've located that.

MR. ANTOINE HACAULT: So that would be

graphically what we see on page 10 of 10, which showed in 2002 expenses starting at 283 million moving up to 353 million in this year, being 2012/2013. You see that?

MR. DARREN RAINKIE: Yes, I see that figure on page 10 of 10.

MR. ANTOINE HACAULT: So when IFF02 was being prepared, Manitoba Hydro's best estimate at that time is that sitting here today we would have about three hundred and three (303) -- $353 million of operating and maintenance and amortization expense, correct?

MR. DARREN RAINKIE: And --

MR. ANTOINE HACAULT: Sorry, administration.

MR. DARREN RAINKIE: Yes.

MR. ANTOINE HACAULT: I screwed up there.

MR. DARREN RAINKIE: With that one clarification, yes.

(BRIEF PAUSE)

MR. ANTOINE HACAULT: And we can see visually although its shown at page 10 of 10 in our book, and that actual table of numbers, that visually each time Manitoba Hydro has revised its forecasts the projections go in a different trajectory than what was originally projected in IFF02, correct?

(BRIEF PAUSE)

MR. DARREN RAINKIE: Well, I think particularly we see the trajectory change when the accounting changes that we've talked about come on the scene, and particularly the movement towards IFRS, yes.

MR. ANTOINE HACAULT: I wish you'd make a -- sir, if we go to IFF09, we identified very small accounting changes, correct?

MR. DARREN RAINKIE: Yes. Fairly small accounting changes, yes.

MR. ANTOINE HACAULT: And as of IFF09 if we look on the table that's found at page 10 of 10 for the year 2011/2012, we were at 403 million compared to the previous projections of three forty-seven (347).

Do you see that on the table? If you go down the line '11/'12 in IFF02 we started at three forty-seven (347), and by IFF09 we're up to four hundred and three (403).

You're not suggesting that the

difference of some 56 million was all accounting changes?

MR. DARREN RAINKIE: No, sir, I wasn't involved in the preparation of -- before IFF09, so I'm not sure I can answer your question in terms of what the differential is.

MR. ANTOINE HACAULT: In any event, the total electric operations maintenance and administrative expense projected in IFF12 are up from initial projections, if we go down the line, in 2012/2013 we're about a hundred million dollars off what the estimate was. It's from 353 up to 455, and that includes what I've referred to as the magic accounting pen.

But there's accounting changes in there, correct?

MR. DARREN RAINKIE: Yes, there are accounting changes in the differential.

MR. ANTOINE HACAULT: And the total difference between what was projected in IFF02 and is now part of IFF12 is a change from 353 million to 455 million, correct?

MR. DARREN RAINKIE: Yes, that's what this chart depicts.

MR. ANTOINE HACAULT: And IFF02, maybe

Mr. Warden can answer this, was it based on inflationary changes?

MR. VINCE WARDEN: Mr. Hacault, I'd have to go back to IFF02 to confirm that, but typically we do allow for inflationary increases in OM&A. I just want to point out the reference to the hundred million dollar increase that you -- that you alluded to earlier.

You really have to, though, look at the total of OM&A and depreciation/amortization because there was a shift because of the DS -- the change in DSM, the way we're now expensing DSM. So the offset -- a large offset to the increase you're seeing in OM&A was in depreciation/ amortization which goes down correspondingly.

MR. ANTOINE HACAULT: I understand that's about a $40 million change. That's part of what I call the magical accounting pen. But that still leaves --

MR. VINCE WARDEN: Yeah, okay, I just didn't --

MR. ANTOINE HACAULT: -- about $60 million even though we take that $40 million DSM out?

MR. VINCE WARDEN: Yes, most of which is accounting changes that we talk -- that you've been talking to Mr. Rainkie about.

MR. ANTOINE HACAULT: But again, that doesn't happen until IFRS is put into place, as I understand it, so -- the DSM change, so that wouldn't be in 2012/2013 because you didn't make that DSM accounting change in 2012/2013. That's only projected to be, what, in 2014/'15?

MR. VINCE WARDEN: Well, currently. But as indicated earlier, you have to be careful because that's been kind of a moving target over the last three (3) years. We keep deferring it by year. So we have to be very careful in comparing one IFF to the other.

MR. ANTOINE HACAULT: And that's what I was trying to clarify. For IFF12, 2012/2013, we don't have to think that there's a $40 million DSM change in there because this is prepared on the assumption that IFRS only gets applied after that.

So it's only after that that we see the accounting change on DSM being any significant -- or needed to be considered, correct?

(BRIEF PAUSE)

MR. DARREN RAINKIE: Mr. Hacault, could

-- sorry, we've been pulling out our tables here. Could you repeat the question, please?

MR. ANTOINE HACAULT: Well, Mr. Warden had suggested that we should back out of the year 2012/2013 about $40 million in DSM, because there was an accounting change.

And I suggested to Mr. Warden that that perhaps was true in subsequent years but was not correct for 2012/2013, because the accounting changes for DSM were not proposed under either IFF11-2 OR IFF12 to be a change implemented in that particular year.

MR. VINCE WARDEN: Yes, Mr. Hacault. I would agree with that. The DSM change first appeared in 11-2 in the -- in the year 2013/'14.

MR. ANTOINE HACAULT: And looking at the graph -- I'm a pretty visual type of guy -- at page 399, first, these numbers are the numbers that Hydro is putting to this Board in the level of expenditures which it wants it to consider in the revenue requirement, correct?

(BRIEF PAUSE)

MR. DARREN RAINKIE: Well, the revenue requirement that's under consideration at this hearing is 2012/'13 and 2013/'14, and these numbers are embedded in our -- in our forecast, yes.

MR. ANTOINE HACAULT: And if we look at the table, if Manitoba Hydro implements its policies, all of a sudden between IFF10 and IFF11 and '12, on the other hand, we see a huge disconnect. The lines don't even continue in the same trajectory at all.

There is a very steep trajectory for IFF11 in the 2013/'14 years, correct?

(BRIEF PAUSE)

MR. DARREN RAINKIE: Well, maybe we should take it one (1) step at a time, as you -- as you tell me. In IFF11-2, we assumed that IFRS would be implemented in 2013/'14. In IFF -- so that number increased quite a bit between IFF11-2 and IFF10-1 because of -- primarily of two (2) things.

We now have analyzed and know that there'll be further overhead reductions in terms of overhead capitalized as well as we know that -- well, we assume that we would expense rate-regulated items in 2013/'14 under IF -- so that in IFF11-2 you would expect a fairly large change between IFF10 and IFF11-2 for those two (2) reasons.

Then, when we moved IFF12, you can see that there's a reduction between those -- those two (2) years of about $60 million for 2013/'14, because we're no longer expensing those additional overheads or expensing rate-regulated items in that year. But then you see the number pop back up to five fifty-four (554) in 2014/'15, when those two (2) items are assumed to be -- to occur.

(BRIEF PAUSE)

MR. ANTOINE HACAULT: Now, first, again, these numbers are the numbers that are presented to this Board in the request on revenue requirement and to form the foundation for setting rates, correct?

MR. VINCE WARDEN: Well, as indicated earlier and -- excuse me -- look at -- looking at this graphically, I'm struggling a little bit because of the -- the changes in the IFF, the timing of implementation of accounting changes and IFRS. And that's why I bring the back -- the Board back to what we have filed in our Exhibit 15, which removes that confusion, if there is any. And perhaps this is only on my part.

But if there is confusion, we look at the actual. So we look at the actuals that have --

have been subject to audit, and we compare the -- what we're asking for in the forecasted two (2) test years. And as I pointed out earlier, after adjusting for those accounting changes and putting them in all the correct years that they're -- they will be now occurring based on the most recent forecast, we are looking at a depiction of costs -- operating -- OM&A costs that are -- if I were to graph this would be quite different from what is shown in -- in your exhibit, Mr. Hacault.

MR. ANTOINE HACAULT: The exhibit, you agree, Mr. -- it's not your graph, but does track the actuals in a big orange bar? On page 399 of our book of documents.

MR. VINCE WARDEN: Yes, I see that. And --and that's why I -- I -- if you look at the actuals to that point in time and then refer to Manitoba Hydro's Exhibit 15, which takes into account the accounting changes -- and Wuskwatim, by the way is -- is also a cost that I believe, if I go back to IFF02, I'm quite certain, subject to check, that Wuskwatim was not specifically identified as a cost -- OM&A cost increase in -- in that year, which it has now been correctly displayed in the exhibit that I referred to.

MR. ANTOINE HACAULT: But it was in

IFF09 and IFF10, correct, the last hearing?

MR. VINCE WARDEN: I would actually have to double-check that to make sure that it was included in IFF09. I believe it was in '10 but, you know, I -- I would really -- I think it's probably significant enough that we -- we should know for sure, so I will double-check that.

MR. ANTOINE HACAULT: Sure. You can report on that back to the Board. I'm not requesting an undertaking, but if you wish to report to the Board on that, that'd be great.

So we can see the actuals were actually tracking very close to IFF07 and IFF09. But I would suggest to you, sir, that graphically we can see -- people are going to get tired of my accounting pen -- but my accounting pen in purple and -- and then green show a materially different direction for a couple of years, being the years 2013/'14 and 2014/'15, depending on which IFF we're looking at.

MR. VINCE WARDEN: Yes, for the reasons we talked about.

MR. ANTOINE HACAULT: And am I correct in understanding when you said that Manitoba Hydro was expected to hold the line, as I understood it, you explained that the were to hold the line in accordance with your IFF12, correct?

MR. VINCE WARDEN: Yes.

(BRIEF PAUSE)

MR. ANTOINE HACAULT: So we see visually, with the green dotted line on this graph, the effect of the directive to hold the line going future?

MR. VINCE WARDEN: Yes, and as indicat -- as I indicated earlier, it includes -- the only provision that it includes is for inflation at 2 percent, other than the accounting changes and the provision for an increase in pension cost. So holding the line means holding costs below the late of -- rate of inflation.

MR. ANTOINE HACAULT: Wouldn't one expect then because those same accounting changes were anticipated in IFF11-2, that both lines should track the same, being the purple line and the green line?

MR. VINCE WARDEN: I think the -- the major difference would be pension costs, the increase for pension costs.

MR. ANTOINE HACAULT: So the pension costs were not reflected in IFF11-2?

MR. VINCE WARDEN: Not to the same

extent as they are in IFF11 -- or IFF12.

MR. ANTOINE HACAULT: Is it your understanding that that's the only change that's driving the difference between the two (2) numbers? I'm looking at the actual numbers. For example, in 2021 there's a difference between -- and this is page 10 of 10, the last page in our book of documents at Tab 21. There's a difference in 2020/'21 of some $28 million.

So that $28 million and difference of -- in OM&A would be attributable to your pension difference?

MR. VINCE WARDEN: Yes. And with -- the only question I have is whether or not we had the same amount in for Wuskwatim. I would have to -- I would have to confirm that.

MR. ANTOINE HACAULT: Could you explain the difference by way of undertaking --

MS. PATTI RAMAGE: Could you hold on, Mr. Hacault?

CONTINUED BY MR. ANTOINE HACAULT:

MR. ANTOINE HACAULT: Are you able to explain that now? I was going to ask for an undertaking, but if you can explain it now that would be great.

MR. DARREN RAINKIE: Sorry, Mr. Hacault, maybe I can help. And I -- I hate to move you around in your book of documents, but you've reproduced one (1) of our schedules at page 368 of your book of documents that shows the progression of accounting changes on operating costs only. This is only the operating costs part.

And -- because I was just reading the note underneath the table saying that -- how could the costs being going up around 30 million when the pension change was only ten (10). But there's a -- there's another part to this pension change that's above the ten (10) that we've talked about.

When we move to IFRS -- right now, in pension expense -- as part of pension expense, we take the earnings that is earned on the pension fund as a reduction of pension expense. So there's the interest on the obligation and there's the earnings on the -- on the pension expense.

When we move to IFRS, the earnings will no longer be calculated based on the expected rate of return, but we will have to calculate those earnings on the -- on the -- using the discount rate. So I think that's the other major difference that Mr. Bowman, I think, was searching for in his bullet point -- in his paragraph underneath this graph.

And if you look at your page 3 -- my -- our page 368 or your page 368 and you take the difference between the 137 million that's there in 2015 and the $163 million that's there in 2022, that difference is 26 million, which is fairly close to the -- to the $30 million figure.

I think there may, as Mr. Warden indicated, be some small changes in the Wuskwatim costs and some small changes to the projection of Bipole 3 or Keeyask or Conawapa costs. But the -- in large part, that differential between those two (2) forecasts is another magnification of the -- of the discount rate.

The discount rate has -- has it -- the reduction of the discount rate of our pension has another impact that's reflected in this schedule. And now you have to be pretty -- pretty into pension accounting to understand that. But the accounting changes do account for the lion's share of that differential of 30 million as depicted on page 368.

MR. ANTOINE HACAULT: So I was right, it was the magical accounting pen.

(BRIEF PAUSE)

MR. DARREN RAINKIE: We're not sure if it's magical, Mr. Hacault, but...

MR. RAYMOND LAFOND: Where is that $30 million on page 368? I'm sorry.

MR. DARREN RAINKIE: I was just taking the difference between one sixty-three (163) and one thirty-seven (137) there, I think, in saying there's --

MR. RAYMOND LAFOND: Can you explain that through the pension expense? I don't see this when I look at the pension lines.

MR. DARREN RAINKIE: You see how the IFRS changes the pension line -- is going from, in 2015, zero to 12 million? I think that's -- I think that's one (1) of the big -- the big changes. Also, of course, what's happening is, if you make some accounting changes, we're assuming inflation on some of the other accounting changes, as well. So if you're expensing $37 million of admin. and general overhead in 2015, with inflation that number gets to be 42 million by the end of the time frame. So there is some inflation in these figures, as well, but I think the main difference is explained by accounting changes.

THE CHAIRPERSON: Could I as a question in relation to Exhibit 15, page -- I believe this is page 19 -- par -- pardon me, page 20. And I don't know if you've addressed this before, but I just wanted to clarify it for my own sake. The very last line of that -- not the very last line; the line before last on that summary there's a reference to, "operating expense recoveries."

Could you explain that one, please?

MR. DARREN RAINKIE: We changed our presentation this year. In -- netted against our operating expense was some miscellaneous revenue that -- that we collected from outside parties. And given that IFRS is fairly strict about not netting expenses with recoveries, so we've decided to move those -- that eight (8) -- I think it said -- yeah, $8 million. It's just a reclassification. It doesn't affect our bottom line at all.

And I guess that's the other thing to be careful about here, is that we've been talking about operating costs, but we have quantified the impacts of IFRS, and they're fairly small on our -- on our -- our op -- our income statement.

But this particular line item we're simply increasing operating costs and increasing income, so there's a zero impact on our revenue requirement, if you like. It's really just a reclassification between operating expenses and other income.

If you recall, many days ago, Mr. Peters and I went through the other side of that in other income.

(BRIEF PAUSE)

MR. ANTOINE HACAULT: Mr. Chairman, do you have any other questions before I continue?

(BRIEF PAUSE)

CONTINUED BY MR. ANTOINE HACAULT:

MR. ANTOINE HACAULT: Could I have parties turn to Tab 23. I think there's one (1) document at Tab 23A that was to be removed, but the Tab 23B and 'C', which are Manitoba Hydro documents, were to remain.

(BRIEF PAUSE)

MR. ANTOINE HACAULT: Yes, in particular, at page 4 -- 418 of that particular tab. It's Tab 23C. My understanding is it's a rep -- reproduction of a letter that was sent from Mr. Warden in November of 2009 to the people out in London.

Just a couple of points. Mr. Warden, you explained to these people in London that Manitoba is a cost of service jurisdiction, correct?

MR. VINCE WARDEN: yes.

MR. ANTOINE HACAULT: And this is a recognized regulatory principle in Manitoba, correct?

MR. VINCE WARDEN: Yes.

(BRIEF PAUSE)

MR. ANTOINE HACAULT: Now, it's my understanding, when we go to the comments by Manitoba Hydro to the various questions, if we go to page 420, in the middle of the page the paragraph starts, "Manitoba Hydro also strongly agrees that this exception," and that would be the exception for rate-regulated accounting, correct?

(BRIEF PAUSE)

MR. DARREN RAINKIE: Mr. Hacault, sorry. That -- if you're referring to question 4 on that page, the exception was that under the rate-regulated exposure draft released in 2009 is that utilities would continue to capitalize overheads that would otherwise not be ineligible and embed those overheads in its property plant and equipment. That's the question that's being asked here, not if rate-regulated assets would continue or not.

MR. ANTOINE HACAULT: Okay. Thank you for that clarification. So Manitoba was -- Hydro was strongly supporting the -- this particular exception proposed by the people in London in its exposure draft, correct?

MR. DARREN RAINKIE: Yes. That was our practice at the time, so we were supporting it. And I think the other thing to keep in mind that you wouldn't see on these pages is that the CEA and its members were being advised by the big four (4) accounting firms to be very supportive of this exposure draft, because they had anticipated that there would be quite a ground swell of opposition in other parts of the world where rate-regulated accounting wasn't -- wasn't practised.

So you can see our responses are, for the most part, positive and very short. Most exposure drafts, if we -- when -- when companies write back, they would have maybe pages of concerns.

MR. ANTOINE HACAULT: But you're not saying that this wasn't Manitoba Hydro's views and that you were misleading the London people when making these statements?

MR. DARREN RAINKIE: No. It was our practice at -- at the time, so of course we were supportive of it. But subsequent to this, the exposure dra -- draft fell apart. We've had extensive reviews with our IFRS advisors and -- and our auditors. And they're suggesting that this no longer will happen.

Even if rate-regulated accounting continues, you would nev -- no longer be able to embed excess overheads in your property, plant, and equipment. So this really is no longer on the table. This is something that was suggested in 2009 and isn't really available any longer.

MR. ANTOINE HACAULT: I'll just want to clarify a couple things before I get into asking questions about what you just said.

The first full paragraph under question 4 indicates:

"Including amounts allowed by the regulator in the cost of property, plant, and equipment appropriately reflects the economic substance of regulated operations and the basis upon which rates are set."

So am I correct in understanding, firstly, that that was Manitoba Hydro's position in 2009?

MR. DARREN RAINKIE: Yes, you're correct in that.

MR. ANTOINE HACAULT: And in the second paragraph, again dealing with the paragraph 16 of the dry -- draft to IFRS, as you've explained, was it the position of Manitoba Hydro that it strongly agreed that this exception was justified on a cost-benefit ground?

MR. DARREN RAINKIE: Yes, because that's what we were doing at the time. We wouldn't want to have segregated out those overheads in some form of a rate-regulated asset.

MR. ANTOINE HACAULT: And finally, in that same paragraph, was it Manitoba Hydro's position in 2009 that this particular exception promoted consistency in financial statements presentation for a significant aspect of the rate-regulated utilities' operations which would assist the users of the financial statements upon transition of IFRS?

MR. DARREN RAINKIE: Yes. At that point, everybody was hopeful we could maintain what we were doing at the time so it all would be consistent.

(BRIEF PAUSE)

MR. ANTOINE HACAULT: And also included at this particular tab is the Canadian Energy Association position, which is co-authored by two (2) other associations, correct?

MR. DARREN RAINKIE: Yes, it was a joint submission of the Canadian Electrical Association, the Canadian Gas Association, and the CEPA.

MR. ANTOINE HACAULT: Which is the Canadian Energy Pipeline Association, correct?

MR. DARREN RAINKIE: Yes, thanks for that.

MR. ANTOINE HACAULT: And in answer to the same question 4, we find the answer at page 425 of our book of documents, correct?

MR. DARREN RAINKIE: Yes, it's the similar question we were just referring to.

MR. ANTOINE HACAULT: And if I recall in Manitoba Hydro's evidence, it indicated that it had some input in reviewing the position that would be taken by the Canadian Electrical Association?

MR. DARREN RAINKIE: Yes, my recollection is the draft letter was circulated, and we had a conference call to discuss the contents.

MR. ANTOINE HACAULT: So would it be fair to say, and I would be quoting this paragraph at page 425 under the heading, "Question 4," and it's the response of these three (3) associations. I'm quoting:

"We strongly believe the exception proposed by the Board in accord -- in the exposure draft is justified because it truly reflects the economic substance of the transaction. These costs are approved by the regulator as part of the rate base which is the basis for determining return on the Company's operations."

To understanding, these three (3) associations were unanimous in stating this?

MR. DARREN RAINKIE: Yes, that's why their letterhead is on the top of it. They all had the same position.

(BRIEF PAUSE)

MR. ANTOINE HACAULT: I'd ask you to flip back to page 423 of our book of documents; that's the second page of the letter that was coauthored by these three (3) associations. And I'll direct your attention to the third-last paragraph that starts with,

"Our comments on selected questions..."

Have you found that paragraph?

MR. DARREN RAINKIE: Sorry, can you repeat which page you're on, Mr. Hacault?

MR. ANTOINE HACAULT: Page 423 of our book of documents. It's the -- where the letter has been signed by the three (3) associations. And there's a paragraph that starts with, "Our comments."

MR. DARREN RAINKIE: I -- I'm there with you now.

(BRIEF PAUSE)

MR. ANTOINE HACAULT: And, sorry, the particular paragraph I'd like to read in starts:

"As further evidence of the need for this standard..."

That's the rate-regulated standard, correct, Mr. Rainkie?

MR. DARREN RAINKIE: Yes, that's what they would be referring to.

MR. ANTOINE HACAULT:

"According to a published report, without rate regulating -- regulated accounting..."

And you'll see I asked some questions of Mr. Schulz about this:

"...analysts such as Standard & Poor's who follow the regulated industry have stated they..."

And this is a quotation from an actual report:

"...may adjust equity of disclosures allow reflecting the economic realities so that the apparent leverage ratios of US utilities remains unaffected by IFRS reporting requirements. This statement provides strong support for the continued recog -- recognition of regulatory assets and liabilities that do not reflect the economic reality of our industry."

And do you agree with that statement?

MR. DARREN RAINKIE: Well, this quote is footnoted. I have no reason to believe that this quote is in error. It -- of course, the date of this letter was November 18th, 2009, a number of years ago. I took your questioning of Mr. Schulz today to be his current understanding of where credit rating agencies are at.

But I -- I have no other knowledge of this particular quote other than it being in this letter. But other than that, I don't think I can help you any more, Mr. -- Mr. Hacault. I think Mr. Schulz told you what he knew this morning.

MR. ANTOINE HACAULT: Thank you.

(BRIEF PAUSE)

MR. ANTOINE HACAULT: Mr. Cormie, I have a couple questions dealing with -- and this is Tab 24. We had put an extract of an exchange between Board member Lafond and Paul Chernick. At page 429 of our book of documents, in particular, page 4,052, there's an inquiry about the whole issue of obsolescence of hydro electric generation in this province.

And Mr. Lafond notes at lines 16 to 18 that the life expectancies are being cut off at a hundred and forty (140) years. So as a backdrop to my questions, firstly, and this may not be you that answers this first question, the depreciation is done on a hundred and twenty-five (125) years and not the hundred and forty (140) years.

Is that correct? I believe it must be Mr. Rainkie that would know that with respect to the generating stations and averaged for a hundred and four (104) years when you take the cumulative average?

MR. DARREN RAINKIE: Yes, I think there was an Information Request that when we took the -- kind of a composite calculation it resulted in a hundred and four (104) years, Mr. Hacault. I remember that.

MR. ANTOINE HACAULT: Now, Mr. Cormie, with respect to the obsolescence of hydro plants, how do you deal with that issue that's been raised by Board member Lafond?

MR. DAVID CORMIE: In which way do you mean how do we deal with that issue? I'm -- I'm not sure what the issue is.

MR. ANTOINE HACAULT: Well, I can't speak for Board member Lafond, but I understood him to express some concern that lives were chosen to be in the hundred and forty (140) years, and we've clarified composite, a hundred and -- a hundred years, that there may be some other sources of energy and why don't we take economic obsolescence of hydro plants into account and shorten it to sixty (60) years or some other number because they may not be productive at all compared to other hydro -- or electric-generating possibilities.

(BRIEF PAUSE)

MR. DAVID CORMIE: Well, I -- I'm not -- not an expert in depreciation issues, Mr. Hacault. But, you know, hydro power is essentially a zero cost, incremental cost supply of electricity. You know, if you calculate the incremental O&M, it's -- it's a tiny, tiny amount.

So clearly there's a risk that the technology will become obsolete, but I can't imagine that even any new technology that might be developed could compete on an incremental basis for that in making hydroelectric development obsolete.

But, you know, a hundred and forty (140) years is a long time. And I think at -- you know, as we go through time and as we investigate the alternatives, we adjust our depreciation rates accordingly based on the knowledge that we have at the time.

I can't -- don't know why we would speculate today that -- our best information tells us that it's on average a hundred and four (104) years. Why wouldn't we go with that. And if something calls along and makes it -- makes us change our mind, we might do that. But right now, we don't -- we -- we believe that that's a reasonable life for those facilities.

MR. ANTOINE HACAULT: It's -- is it a reasonable assumption also for new plants like Keeyask and Conawapa?

(BRIEF PAUSE)

MR. DAVID CORMIE: You know, I -- I would -- I would think so because the technology that we're using in the -- in the -- in designing and -- and constructing these facilities is -- is state of the art.

We know using technologies that were around a hundred years ago resulted in dams that have lasted a hundred years. We have only made those -- those structures better over time as we've implemented new technologies.

If you were to go to the Kettle

Generating Station which was -- the concrete was poured in, you know, the late 1960s, that's almost forty (40) years old. They sure don't look very old, Mr. Hacault. So it's -- it -- it's probably not an issue of -- of their age, more of the issue of whether the technology becomes obs -- obsolete.

And I think we're using a best estimate of the economic life, we adjust that estimate over time and I think we'll continue to do that. The actual facility and its condition may -- may be -- may be longer or may be shorter than that.

MR. ANTOINE HACAULT: Now Mr. Chernick, at page 431 of our book of documents, it's page 4,054 at lines 5 to 8, provides his view of whether it would be worth continuing to operate hydro plants after 2050 or 2100. And he says that he real -- he could -- might be able to imagine it, but it would just be put in a science fiction category.

Do you share that view, or do you disagree with that view?

MR. DAVID CORMIE: Well, I don't -- I don't know I would -- I would categorize it as being science fiction. You know, the world changes.

We've seen, you know, relatively -- or, you know, good condition hydro plants decommissioned for -- for other reasons beyond their not being able to provide their function because there's competing uses for the resource that might make them obsolete. But I -- you know, we don't have anything in -- in our forecast that identifies that as a risk.

And as I said, if it -- if the world were -- were to move in a direction where the water could be better used in a different manner than hydro-electric generation, if -- I'm sure Manitoba Hydro will ad -- will adjust and adapt as we go, but I think that's pure -- that would be pure speculation at this point in time.

MR. ANTOINE HACAULT: What about wind? Can't we just have a whole bunch of wind towers producing electricity? Why would we need hydro generation if we've got wind?

MR. DAVID CORMIE: Well, I think -- I think the uncertainties with -- with any technology are there whether it's wind, hydro, you name it there -- there can -- you know, you can always imagine something better coming along. I'm not suggesting that -- that any technology is better than any other one.

And I -- to -- to assume that -- that wind would not be subject to the same technological risk that hydro is that we're -- that we're discussing here, I think that would be presumptuous. I think the -- the future is unknown. And we're confident that the assets that we're putting in place today will have these lives, but there is -- there is uncertainty and we will deal with that at the time.

MR. ANTOINE HACAULT: Am I correct in understanding though that you can't tell the wind when to blow, but you can decide to turn your turbines on or not?

MR. DAVID CORMIE: Yes, clearly the technologies have different limitations. And no matter what technology it is you can always describe -- you know, you can always describe that limitation, and -- and we try and when we compare technologies to -- to make sure that we compare them on -- in an equal basis, including all the costs and -- associated with using that technology.

When the wind is blowing, there's nothing wrong with the electrons that are coming off the wind turbines. The same way, when the water is flowing, there's nothing -- you can't tell the difference between the quality of the power. But they -- they do perform differently, they do require different costs to maintain a reliable supply, and -- and we adjust for those factors when we are comparing alternative technologies.

MR. ANTOINE HACAULT: So the advantage of hydraulic generation would be that it could firm up wind if you don't have the turbines turning because there isn't any wind. You can ramp up your water, but you can't do the opposite with the wind.

If the wind isn't blowing, you can't magically wave a wand to say, please blow wind to supplement my hydro generation?

MR. DAVID CORMIE: Yes. But there are lots of utilities that have wind generation in their portfolio that don't have hydro, and they use natural gas turbines to provide that firming service. So depending on the utilities, the options available to utility, different utilities will cap -- will -- will adjust for those -- those firming costs based on their -- their circumstances.

(BRIEF PAUSE)

MR. ANTOINE HACAULT: I don't know what the Board's wishes are. I have probably fifteen (15) to twenty (20) minutes for what I call the NUG issue, the non-utility generation. I -- probably, it's Mr. Cormie that would respond to those couple of questions.

It relates to options for industrials.

THE CHAIRPERSON: I suggest we get them done today.

CONTINUED BY MR. ANTOINE HACAULT:

MR. ANTOINE HACAULT: So at Tab 26 of our book of documents, we've extracted an exchange which occurred with Mr. Wiens at two (2) GRAs ago, in particular, with respect to Manitoba Hydro's non-utility generation policy.

And to put the matter back into context, if it is, Mr. Cormie, describe what the non-utility generation program is. There is a Manitoba Hydro exhibit on that, Exhibit 75, that isn't part of our book of documents. Sorry, it's page 40 -- page 489 at...

(BRIEF PAUSE)

MR. ANTOINE HACAULT: Sorry, it was in the middle of my tab here, and I hadn't put a little sticky on it, but Manitoba Hydro Exhibit 76 and 75 are found at pages 488 and 489 of our book of documents. So if we could -- could turn to that, and then we'll go back to the transcript.

My understanding correct is that there's four (4) private individuals who generate their portion of su -- own supply from wind power and that basically Manitoba Hydro allows them to kind of do it in colloquial terms but wind back their metre. So when their wind generation power goes into the system, it can stop the metre from turning and actually make it go backwards; is that correct?

(BRIEF PAUSE)

MR. TERRY MILES: I guess with that "if" -- if there is generation. So in the small -- these are the small customers that you're referring to. That would be the case, yes.

MR. ANTOINE HACAULT: So these customers would be small customers would be paying in the seven (7) cent per kilowatt range?

MR. TERRY MILES: I believe so.

MR. ANTOINE HACAULT: So that for these smaller users -- which would be what, farms?

(BRIEF PAUSE)

MR. TERRY MILES: I think there's a

mix, but that could be one of the types of use, yes.

MR. ANTOINE HACAULT: In effect, what's happening when they generate their own power, they're getting the same rate that they're paying, which is a seven (7) cent number, correct?

MR. TERRY MILES: Yeah, just correct that the -- the customers that -- that are under the NUG policy that you're referring to get published annually -- published annual standard residential runoff rate. That's what they get for their -- when they -- if they do have non-utility generation.

MR. ANTOINE HACAULT: But am I wrong in understanding that the published rate is what they actually pay, which is in -- I don't -- I don't have the schedule in front of me, but it would be around seven (7) cents?

MR. TERRY MILES: I -- I don't have the numbers exactly. It would be in the order of that. But I think all of them pay the -- all -- all the customers that are under that class -- and it's less than 200 kilowatt class that would -- that would fall under that.

Those that are larger than that would -- would pay a rate that would be subject to a project-specific price that would be determined between

Manitoba Hydro and -- and the customer.

MR. ANTOINE HACAULT: So that would be, for example, the wind farms at St. Joseph and St. Leon?

MR. TERRY MILES: That would be larger customers like that, yes.

MR. ANTOINE HACAULT: So we have examples of small users doing wind generation. They get the published rate around seven (7) cents. And -- and what's the rate as -- can you put on the public record what the rate is for the wind farms?

MR. TERRY MILES: For the -- for the wind farms, no, I cannot.

MR. ANTOINE HACAULT: Can you give us a range without disclosing an actual amount? For example, is it between five (5) and eight (8) cents?

(BRIEF PAUSE)

MR. DAVID CORMIE: I -- I -- there may be an undertaking on the record, Mr. Hacault, that we could -- we could refer to. But we cannot -- unless we -- we -- unless it was filed previously -- and I know we were asked that, but I don't believe we can provide that information to you.

(BRIEF PAUSE)

MR. ANTOINE HACAULT: I'm trying to see if I can get at the concept, at least. Was it a price tied to marginal values?

MR. DAVID CORMIE: It was a negotiated price that -- that was necessary by the developer to make the investment in Manitoba, and it was related to the value that Manitoba Hydro -- the value of the resource that Manitoba Hydro calculated, based upon its -- its avoided -- or its marginal value.

MR. ANTOINE HACAULT: And at page 491 of the book of documents there was an answer by Manitoba Hydro to MIPUG Round One Question 7 with respect to the marginal value of the Power Smart plan.

So we see on that table that the marginal value has ranged in 2001 from six point seven-six (6.76) cents up to a higher amount in 2010, being eight point nine-five (8.95) cents.

That's the values that Manitoba Hydro uses for marginal values when it considers whether it's worthwhile doing a Power Smart plan?

MR. TERRY MILES: Yeah. You know, I think if you were -- if you're asking, Mr. Hacault, if the marginal values were used to assess the value of the wind projects and the price that would be associated with those, that's not what was used. A separate economic evaluation was carried out for the wind farms. So a separate analysis, much like we do with -- with all our resource options, was carried out for that.

MR. ANTOINE HACAULT: So what you're telling me is that these Smart plan marginal values are what you would consider to be your firm load marginal values as opposed to a negotiated price?

MR. TERRY MILES: I think these values that we have are -- represent all-in marginal costs for -- which would be for a uniform load reduction, if you will, across the system. The specific characteristics of wind would have to be taken into account when our evaluation was done. So these are not necessarily representative of the value that we would extract from a wind resource.

MR. ANTOINE HACAULT: Now, I won't go through it, but the discussion between Ms. Tamara McCaffrey, which I had referred to initially at the beginning of the tab, and Mr. Robin Wiens, she had put to him the example of a corporation who would build a biomass plant with woodchips and generate electricity or heat from that biomass, I guess, similar to if somebody installs a wind turbine.

That's the type of situation where you negotiate a contract with that corporation and you agree to give a certain marginal value for that power, correct?

MR. TERRY MILES: I'd suggest that a contracted price with a number of conditions on -- on that in the operation and -- and the expected load generation and whatever other characteristics, intermittent or not, from the plant, how often they expect it to operate, you know, the type of duration and long-term supply of -- of biomass or fuel that they'd get, I think those would all be factors that would end up in there.

If you -- and that would drive what Manitoba Hydro was pre -- prepared to pay or what the value of the produ -- or the generation or the energy coming out of that plant would have in the Manitoba Hydro system.

MR. ANTOINE HACAULT: So that if a company is just in the business of generating power, you've described to me how Manitoba Hydro deals with that business, correct?

MR. TERRY MILES: That's correct.

MR. ANTOINE HACAULT: Does Manitoba

Hydro approach non-utility generation the same way when it's not the customer's primary business? Say, for example, Canexus wanted to put some windmills.

Would Manitoba Hydro approach the non-utility generation pricing the same way if it's Canexus that does it for its own load?

(BRIEF PAUSE)

MR. TERRY MILES: I think the condition with an existing customer that Manitoba Hydro is supplying is that the customer must meet their own load requirements first under that type of condition. That's an overarching condition under the NUG policy.

You know, in terms of how we would deal specifically with a customer, I think that would vary from customer to customer. And again, individual arrangements would be made. I don't believe it would be exactly the same as would be dealt with a customer that would be solely doing it for the purpose of producing power and nothing -- and nothing else.

I think the whole -- the whole point of -- of that, and I think it was indicated in -- in the evidence that Mr. Wiens gave, was that the goal is to prevent, if it will, gaming in the system, where someone may get Manitoba Hydro power, and then use it when it's cheaper and generate otherwise and be able to benefit from that generation on their system, as opposed to using it to reduce the load in their -- in their own business and their industry.

MR. ANTOINE HACAULT: So there's a -- and the reason I was getting into these questions is because you heard some -- you may not have been here, but there were some comments by some of the MIPUG numbers -- members that there were different options available in other jurisdictions that were not available here.

So at least for major industrials, it is expected that they have to use up all the hydro generated by them before they would start to be able to get a return on that power, contrary to, for example, the wind turbines in St. Joseph and St. Leon. In St. -- let me clarify that.

In St. Joseph and St. Leon you have to take the power at the price you negotiated. Isn't that correct?

MR. TERRY MILES: I believe that's correct, yes.

MR. RAYMOND LAFOND: I'm not sure I understood the question, Mr. Hacault. Are we saying that Canexus could be willing to sell its power, but not use it itself? In other words, build a wind farm somewhere?

MR. ANTOINE HACAULT: No, they could use a combination of -- of both; they could sell the power at -- say if the wind farms are getting six (6) -- six point one (6.1) cents, or six (6) cents, why couldn't Canexus have wind power, sell it at six point one (6.1) cents like the wind farms? And Manitoba Hydro has to take every kilowatt that's produced by that wind farm at whatever the negotiated price is.

That option is not available for industrials. They wouldn't be able to have a wind turbine and say, Well, listen there's one (1) point here where I'd like to sell you my power at six (6) and -- six point one (6.1) cents, or whatever the number would be, and give them the flexibility of dealing with their energy requirements by being treated the same way as non-utility generation clients are.

MR. RAYMOND LAFOND: So if I may understand, the situation would be, for instance, the way I'm hearing it -- and correct me if I'm wrong -- is -- the question is: Could Canexus sell -- could build, for instance, a will -- a wind farm or solar type of system and sell its electricity to the system at, for instance, seven (7) cents a kilowatt hour and purchase from Manitoba Hydro, for instance, at four and a half (4 1/2), five (5) cents?

Is that the question? At the same time? In other words, make a mark-up?

MR. ANTOINE HACAULT: That -- I can't answer that fully. For example, when there was the program to help the companies, and some of the MIPUG members testified to that, the actual numbers that they were paying, at some points in time, when you took the demand charge and the energy charge, were like ten (10) and eleven (11) cents. They were paying more than residential com -- customers at those particular time frames.

So that the question that -- that, Board member Lafond, you asked me assumed that they are always paying four and a half (4 1/2) cents. That's not necessarily a correct assumption, based on the information I've seen. So that it's not so much -- it's a question of creating programs that -- or being open to creating programs that give the same flexibility to major industrials as non-utility generation people who just make a business of doing it.

(BRIEF PAUSE)

MR. ANTOINE HACAULT: I don't have any other questions on the non-generation utility. And unless the Board has questions of clarification for -- for these -- this panel, what I might suggest, members of the Board, is that I just have the opportunity to review my notes, I'm -- I may have a couple questions. But I could ask them tomorrow morning by way of clean-up. And then I'm looking to Board counsel for direction as to what happens after that. I had understood there might be some further cross-examination on undertakings and then followed by testimony of Mr. Bowman.

MR. BOB PETERS: If I -- if I could, Mr. Chairman -- thank you -- to remind people, this Board will sit starting at 10:30 tomorrow morning, and I will suggest that, at that time, if Mr. Hacault has any clean-up questions left from today, that would be his opportunity to -- to pose them, and I wouldn't expect that to be lengthy.

Following any final questions in conclusion by Mr. Hacault, there are over a hundred exhibits filed that may give rise to questions from My Friends opposite, Mr. Williams, Mr. Gange, and as well as myself. I would then suggest that, after Mr. Hacault, we -- we pose those questions, and I suppose I would go first, followed by Mr. Williams, followed by Mr. Gange, to tidy up. And if Mr. Hacault has any, as well, I suppose he should be entitled to ask those.

I expect -- I've identified about twenty (20) IRs, scribbled down some numbers from My Friend Ms. Ramage, that I -- I'd like to just briefly address tomorrow. So I suspect we'll be the morning with this panel.

And then following our questions of this panel, Ms. Ramage would have an opportunity for any re-examination if there was any. And concluding that, this panel could be discharged, subject to being re-called by the Board should the Board at some later time have further questions. But in any event, this panel would -- would be, in essence, concluded.

And then we would turn, and I'm suggesting it will be after lunch, to the MIPUG witness Mr. Bowman. And he would be with us for the balance of tomorrow and also the next -- part of the next day.

So I hope that wasn't too confusing, Mr. Chairman. But if we could, then that would be what I propose transpire starting at 10:30 tomorrow morning.

THE CHAIRPERSON: Thank you. I see --

Mr. Williams, do you want to comment?

MR. BYRON WILLIAMS: Only that -- to the extent that I have a follow-up, it would be less than twenty (20) minutes.

MR. BOB PETERS: Mr. Chairman, I have one (1) other housekeeping matter that I could perhaps deal with.

The Board has received three (3) written presentations from Manitoba Hydro ratepayers that are sent in electronically, I believe. As well, Mr. Stokke has provided further comments on Manitoba Hydro's Exhibit 19. Those have been received going back as far as December 13th until relatively recently, and as is customary, I would suggest that we ask Ms. Lavigne to put them on the transcript, perhaps even at the end of today's transcript just so that they are recorded as the presentations that have come in.

I would note that there may be a further presentation from Mr. Stokke related to some further pre-ask questions that were asked by the Public Utilities Board and which have been responded to. He's been given a copy of the responses, and he may have a further presentation. But we would deal with that if and when received.

THE CHAIRPERSON: Thank you, Mr.

Peters. Ms. Ramage, did you --

MS. PATTI RAMAGE: Oh, there was one (1) other procedural step that I didn't hear referenced. And you may have not gone that far, but once Mr. Bowman has completed his evidence, Manitoba Hydro may reconvene its panel for reply purposes. And I don't know whether we'll be exercising that or not, but...

THE CHAIRPERSON: Okay. I think we've addressed all of the procedural matters. And any administrative matters to attend to? I don't believe so. So we are adjourned for today, and we'll see everyone again tomorrow morning at 10:30. Have a good evening, everyone.

(PANEL RETIRES)

(Inserted Written presentations
from Manitoba Hydro ratepayers)

Written Presentation by Mr. Stokke, January 18, 2013

Comments and observations on Exhibit Number MH-19 Limited, so as to fall within the context of my concerns; see points 2 and 3.7 below.

Summarizing remarks

Since the Exhibit, a.k.a. a letter or a report, has been filed with PUB, it is understood to represent the essence of Manitoba Hydro's knowledge and understanding of, and its position on, the issues that bear on question of whether the spillway at Pointe needs to be replaced or not; see point 1.5 below.

I found nothing of substance in the Exhibit supporting the replacement decision. Instead, there were repeated "iterations and re-iterations" of opinions ("engineering judgments" and "conclusions") see 4.5, often with references to sources unknown to me, see 3.1. Reported on are also various assertions by staff, to the effect that it shows that they have not changed their opinions.

The Exhibit contains many statements that are wrong on issues that are critical to sound decision-making respecting the spillway replacement project; see 4.1.

The Exhibit contains many statements that are misleading, or half true, see 4.2.

The Exhibit shows that Manitoba Hydro takes an unwarranted rigid and narrow view of the Canadian Dam Safety Guidelines, see 4.2.2

The Exhibit has a plethora of material

that is not germane to the spillway issues, see 3.5; it is unclear whether this is caused by Manitoba Hydro being confused about what counts, or for some other reason about which one can only guess.

The Exhibit on two (2) occasions make statements to the effect that the replacement decision is not, or at least may not be, sound; see 4.2.5 and 4.3.2.

Based on the above bullets, and on much more as discussed below, I daresay that the Exhibit speaks louder and better than I can hope to do about how inadequate the underpinnings of the decision to replace the spillway at Pointe Du Bois are.

1. General Observations

1.1 The Exhibit is a letter of 2012-04-26 to me, Per Stokke, by Manitoba Hydro, which according to Hydro

"Summarizes the results of our investigation into your questions about the Pointe Du Bois spillway."

1.2 The letter says it was written from the perspective of the Corporation's Integrity Program. One must therefore observe...

1.2.1 ...not all that hides no

hanky-panky is hunky-dory.

1.3 It remains a mystery to me why Hydro would treat my "questions as a report pursuant to the Integrity Program", pl.

1.4 It is a double mystery to me why Hydro decided to send a report on such an integrity investigation to me, as it does not at the same time provide any of the relevant and useful Dam Safety information I was after, respecting the decision to replace the spillway; see points 2, 3 and 4.

1.5 It is a triple mystery to me how on earth Manitoba Hydro would volunteer to PUB a report so obviously wrong and misguided on the very same Dam Safety issues Hydro claims are the (main) reason for the decision to replace the spillway; see point 4.

1.5.1 The writer of the report, Shirley Denesiuk, has no background in engineering, yet alone Dam Safety engineering and cannot be held responsible for this.

1.5.2 This writer advised the upper echelon at Hydro in a letter of July 30, 2012, that he would consider it unfair to Shirley if she were to be held responsible for the Dam Safety aspects of this letter.

1.5.3. Still, by filing the letter with

PUB there is a danger that this might be happening. But make no mistake about it; the responsibility for the document rests solely with Manitoba Hydro's upper management, and with it only. So let the quality of the document speak in general, then, to the quality with which that management has handled this whole affair, from the claim of the spillway at Pointe Du Bois needs to be replaced to its way of acting upon that claim. One must infer that this report is the best and the most comprehensive concise document that exists at Manitoba Hydro on this subject, and that the upper management is content with that.

2. The Fundamental Scope of my Quest

As the Exhibit has been filed both as a document on the Pointe Du Bois spillway replacement issues in general and as a summary of the investigations into my search for answers to troubling questions of same (my quest), it is purposeful to note that the quest was limited to the station's Dam Safety issues as follows:

2.1 My quest has been to find what, if any, hard ("credible and defensible", as it is understood in the field of Dam Safety) evidence Manitoba Hydro relied on when it made the decision to replace the spillway.

2.2 The quest has been limited to the 'Dam Safety under High Flood' aspects; i.e., the evidence that bear on whether the existing spillway has insufficient capacity to protect the dam under high flood conditions, as per the Canadian Dam Safety Guidelines.

2.3 Should 2.2 be appropriately confirmed, the other issues that Hydro claims have bearing on the decision need not be examined any further.

2.4 Should 2.2 not be confirmed, and Hydro still wants to pursue replacement, the other issues must be analyzed at a high level of study unless it can be concluded at a lower level the replacement is not called for, each in their own right and possibly in (various) combinations.

3. General Comments

3.1 There are a number of documents the report refers or alludes to which I have not seen; e.g., "report dated December 20, 2005", page 5, 11, 14; a June 2006 memo, page 6 (although possibly available at some time); "Option 3", not otherwise referenced, page 7; "Table E1", not otherwise reference, page 7; "a

November 2009 report", page 11; "a December 2011, KGS report", page 11; numerous minutes and documentation of various meetings, discussions, recommendations, processes, analysis, reviews, decisions and selections, explicitly mentioned but otherwise in hiding. There are other unfamiliar referenced material in those parts of the report that are not germane to the task at hand, and therefore presumably not important at present.

3.2 When I asked for copies, in the post Brennan era, it was denied.

3.3 As I stated in my limited response (hard copy at PUB) to the report to Manitoba Hydro, the "FPR Theory", page 11, was not advanced as any sort of "theory" or "hypothesis" of mine. It did strike me though, as I struggled to try to get under the skin of this decision, that the findings of Daniel Kahnerman in the book Thinking, Fast and Slow made for fascinating reading. Let me respond further here to the report's, "These comments appear to be inconsistent with an FPR Theory", Page 11, as follows: the fact of the engineering/engineering economics situation, to the best of my knowledge are,

3.3.1 A redevelopment of the powerhouse would automatically call for a replacement of the spillway, as prompted by site layout considerations. A powerhouse redevelopment in isolation would be such an odd and arduous undertaking that I would be much surprised if it has ever been contemplated beyond the back-of-the-envelope stage.

3.3.2 The cost estimate of a full redevelopment of the site reached such an astronomical level by 2009 that "the Vice-President responsible was not convinced the project could be cost justified", page 3; i.e., the power economics howled.

3.3.3 Enters the decision to (pre-)build of the spillway in isolation, justified on grounds other than site layout considerations: Dam safety, not to be argued with (when real that is). Factor in a number of side issues, for good measure. It all has great intuitive appeal. Pointe is 100 years old. There is bad concrete to be found there. (So how exactly does all this affect Dam safety, you ask? Exactly.)

3.3.4 Although Manitoba Hydro states that no redevelopment of the powerhouse is presently contemplated, provisions for such have been included in the spillway replacement design.

3.3.5. If then, at some future date, Hydro should start contemplating redeveloping the powerhouse, it will find that the power-economics have been most wonderfully improved from those of point 3.3.2, and how quite possibly justifiable. Because the cost of the spillway, bitterly expensive though it was, has by now become part of that fabulous technicality called "sunk costs".

3.3.6 Never mind that the overall cost of redeveloping the site in this fashion will be way more costly than what a full redevelopment would be, at one go (I hasten to add that I don't suggest this be done).

3.4 There are a number of wrong and half-true statements attributed to me, which I won't comment on here, unless the impact on the issues of concern.

3.5 There is much in the report that is irrelevant to my "questions about the Pointe Du Bois Spillway", page 1, such as: much of the Overview, page 3; much of the Chronological Review, page 5; all of Worker Safety issues, page 9; all of Environmental Issues, page 10; all of Financial Review, page 10; all of Future Powerhouse Rebuild, page 11.

3.6 On the other hand, much of the essential issues and factors of Dam Safety brought up by me, since the start of my quest in 2010, and further in my letter of February 2012 (hard copy at PUB) as "additional context and elaboration", are not dealt with. Some examples are: the required level of studies of versus the importance of the decision; the dam break scenario in sufficient detail so it could be meaningfully reviewed in light of the Guidelines' question, "What can go wrong?" (This question was however forwarded to Power Supply by Shirley Denesiuk in late 2011 but Power Supply reportedly refused to answer it); the probability of that happening; a critical review of the LOL estimate with view to the expected values of the input variables as appropriate in the context of a very important decision; the lack of Dam Safety report(s) by independent, expert Dam Safety practitioner(s); the absence of a document delineating the decision-making process; the lack of transparency and openness to the public in this whole matter, all of the above as called for by the Guidelines; more examples will be brought up under the next heading, Specific Comments.

3.7 The report makes it clear that, in addition to the Dam Safety concerns of my quest, a number of new issues of concern have arisen. These all have to do with the way Manitoba Hydro has handled, and continues to handle, this whole matter of spillway replacement at Pointe.

4. Specific Comments

As I find the disposition and format of the report ill-suited for relating its various statements to the issues of concern in a systematic fashion, I shall try to organize the comments on the report around the issues (in no particular order of importance). 4.1 Wrong, or untrue statements.

4.1.1 "Repair of existing spillway units 1 - 44 is not an acceptable option because the riverbed is too shallow at this point and the channel will have to be excavated to pass sufficient water", page 10.

The required capability of any particular part of the spillway can only be evaluated in the context of the spillway as a whole (and while this entire Financial Review point is largely irrelevant since it pertains to the replacement plan, units 1 - 44 our existing spillway and will continue to serve, and be repaired is necessary, if replacement is not required).

4.1.2 "You pointed out that a 2005 study by KGS Consultants concluded that the spillway could be repaired to handle a 1000 year flood at a cost of $15 - 45 million", page 12.

I pointed to the study in nowhere near those words, but the main points are that the two (2) values represent two (2) widely different options, both of which include much more than repairs (also bear in mind that repairs by themselves do not improve capacity). The latter option would accommodate the PMF (considerably more than the present replacement scheme) with full automation of the gates (effectively a new spillway, but with no provisions for future powerhouse redevelopment), and the former was automated to the extent that manual operation of the gates would only be required every 15 - 20 years (virtually an automated spillway). Both estimates also include the cost of determining the East Gravity Wall.

4.1.3 "They calculate that the facility currently is only capable of passing a maximum safe flood of 2,840...", page 5; "...current discharge capacity of the structure which can only deal with one in 90 year flood", page 12; and "...the discharge capacity was increased to withstand a one in 90 year event", page 13.

As I understand it, this discharge

corresponds to a situation where there is incipient overflow of (a part of) the East Gravity Wall.

4.1.3.1 To my knowledge there is no study that shows that a (partial) collapse of this wall under high flow is a Dam Safety issue.

4.1.3.2 Previous point is rendered moot in any case as this wall must be remedied as required for operational purposes, at which time it can very reasonably be made both higher and capable of withstanding overflow (effectively a gold standard replacement by buttressing the wall with roller-compacted concrete at the cost of $4 -$6 million was suggested by SNC-Lavalin in late 2002).

4.1.4 "

> be] under particular assumptions near zero (0.066)", page 14.

This value represented only the LOL downstream of the Slave Falls, and was given as an example of why it was not appropriate of Acres to have included the population in that reach of the river in their estimate of LOL (between three (3) and five (5) persons, repeatedly qualified as preliminary values by Acres).

4.1.5 "You also suggested that the

> Guidelines allow...greater

discretion...in the case of existing
structures that do not generate new
revenue. We cannot find a
substantial level of discretion based
on our read of the 2007 Guidelines",
page 13.

Never mind that I would hardly have "suggested" this, and not used a word like "discretion" in such a context (and most certainly would not have brought the topic of revenue generation, new or old, into the picture): I know the Guidelines afford great flexibility when it comes to dealing with existing structures (how could it reasonably be otherwise in view of the fact that the Guidelines are regularly and not infrequently revised; go for replacements at every revision?). Of course, it is more than understandable that the writer of the report was unable to navigate the Guidelines; for further comments on this matter see point 4.2.2 below and especially note the reference to figure 1-1 of the Guidelines.

4.1.6 "...plausible scenarios where
there would not
residents]. E.g. water flow through
the powerhouse is interrupted as a
result of mechanical breakdown", page

15.

This is not a flood-related Dam Safety issue with the capacity of the spillway is of any concern; at most it is a "Sunny Day" failure issue, which I understand is not a Dam Safety issue either, for reasons of its own.

4.2 Misleading, or half-true statements.

4.2.1 The issue at hand is presented as an either/or replacement/repair option. Page 2, 4, 5, 12, 13. If the problem is insufficient capacity, as claimed, repair is not an option, as repairs alone do not enhance capacity. Of course, if capacity is not a problem, and there is no satisfactory evidence that it is, repairs and maintenance must be undertaken as required for operational reasons. It is also possible that it at the same time would prove reasonable to take some modest steps toward improving the capacity of the spillway.

4.2.2 "Even if the spillway at Pointe literally falls within the table in the 2007 Guidelines, you suggest...", page 3.

This, as I take it, must refer to, actually two (2) tables, Table 2-1 and 6-1, which must be read in combination to be meaningful in this context. It is curious, but by having decided on adhering to the Guidelines' provisions, Manitoba Hydro, in this report as well as elsewhere I have looked, persistently insists on being yoked to the provisions of these Tables while seemingly allowing itself to ignore the rest of the Guidelines. Yes, the Tables do provide Standards-based guidance, best suited, though, it seems, for new dams and, perhaps, existing dams of small consequences. For the existing dam at Pointe, however, an apparently much better starting point would have been for Hydro to have turned to the algorithm of Figure 1-1, which addresses the common sensible question, "Is the dam safe enough?" This in due course would possibly have required that the Corporation turn to the Risk-based approach of the Guidelines.

4.2.2.1 "The principal driver of the spillway project is concerned that the existing powerhouse in spillway at Pointe cannot pass enough water to meet the current Guidelines", page 4.

While a mere concern does not a case make, and a case has not been substantiated in evidence, what is noteworthy here in the present context is that the term "Guidelines" actually just means of the "Tables". "Guidelines" is similarly employed throughout the report; especially note the effect of this rigid (and wrong) narrowness of interpretation on the matter dealt with in the first paragraph of Issue Number 4, page 14.

4.2.3 Lost in the exactitude of the many "spillway capacity" numbers cited in the report, page 5, 6, 13, 14, is the fact that spillway capacity is a splendidly stretchable notion. At Pointe the capacity of the existing spillway responds extraordinarily fast to even small increases of the forebay levels, relatively much more so than what the planned replacement spillway would. This because it is very wide but shallow; i.e., it was built to work with nature, (and therefore also at a minimum cost). This wonderful characteristic of the spillway makes it uncommonly easy to increase its capacity to deal with high floods, particularly at will, by means of simple and inexpensive measures.

4.2.4 "The project is planned on the basis of an estimated LOL of approximately 2 persons, based on the KGS estimate of 1.5", page 14

(page 5 states that Pointe is in the CDA category "High" based on calculations (my italics) that approximately two (2) fatalities could result from a failure). An LOL of approximately 2 cannot be "estimated" (nor derived by "calculations") on the basis of another estimate of 1.5. At best of the latter can possibly be "rounded upward" to 2, if it can be demonstrated and documented that there are valid reasons for doing so. The facts of the matter, however, appear to be,

4.2.4.1 The 1.5 "estimate" was the raw computer output, given, what there are good reasons to believe, the "most conservative" inputs. KGS, who intimately knew the degree of conservatism that went into the input parameters, rounded the value down to 1, documenting the various factors that made it reasonable to do so.

4.2.4.2 Acres, as the report states, came up with LOL values between 3 and 5, but only after they repeatedly had expressed warnings about preliminary status of their evaluation, and sure enough, it was reviewed and deemed, literally and in effect, as being "unnecessarily conservative" by both SNC-Lavalin and the KGS, respectively.

4.2.4.3 SNC-Lavalin estimated the LOL to be below one "in all cases", as the report states.

4.2.5 "On the other hand, the

reasoning of Manitoba Hydro's designers appears to be sound if the LOL is one or greater", page 14.

It is widely reported in the field of Dam Safety, to the extent that it would be justified to regard it as a convention, that a LOL of 1 corresponds to the 1000-year flood as required IDF (note that the existing spillway can handle that with a modest surcharge). All three (3) of the engineering consultants mentioned in the report acknowledge this. The quoted statement contravenes of this convention. At the same time it implies that, if LOL less than 1 the reasoning (of the designers) appears not to be sound, or at least admits to the possibility that it may not be sound. Given that $400 million (at the time the report was written; $560 million now as I understand it) is at stake here, and given that no less a renowned engineering consultant than SNC-Lavalin estimated the LOL to be below 1 "in all cases", Manitoba Hydro itself is on record here as admitting that the replacement decision is not, or at least may not be, sound.

4.3 Confused and mixed up presentations

4.3.1 I am not able to relate to the

last three (3) paragraphs, page 8 and 9, of (c), page 8, in a meaningful way. There seem to be different "projects" involved here, not sure which ones and in what context, and exactly where the narrative switches from one to the other. And what to make of the statement,

> "For example, SNC estimates are included in a report which also advocated for technology involving rubberized dams"?

We are informed that design personnel took issue with the low estimates for repairing the existing spillway, but what was the outcome of all that (incredible, really, that such renowned engineering consultants should forget to include such elementary cost items)? It would be interesting to see the detail documentations on all this, including the accurate cost estimate after the Stage IV engineering.

4.3.2 "The report estimated loss of life...as little as zero in a "Sunny Day" scenario which assumes that the dam failure occurs in a favorable way, plenty of advance warning, the ability to warn all affected residents, et cetera, page 14, 15.

The logic here is impeccable; plenty of warning is a factor that alone would bring the LOL estimate to zero (if three (3) hours or more). The thing is though, that it is the "Flood-induced" failure that comes with plenty of advance warning, not the "Sunny Day" one. So here we have another statement from Manitoba Hydro that literally and effectively points to the replacement as not being necessary, as based on "the primary need", page 7, or "the principle driver", page 4.

4.4 Irrelevant statements with diversionary impact

While some examples of irrelevant but relatively harmless parts of the report were addressed in 3.5, the ones listed below can be directly harmful, is they may intuitively be perceived as being germane and diverse attention from the real issues.

4.4.1 There are numerous statements about the deficiencies of the East Gravity Wall, especially about bad concrete, and wherever the topic of repairs is brought up. None are relevant, but many are those who believe that considerations to the EGW are crucial, including apparently the writer of the report. See 4.1.3.1 and 4.1.3.2 for a description of what the real situation is.

4.4.2 There likewise are many statements about bad concrete in the spillway, sometimes misidentified with the EGW. Left to be seen is even a superficial descriptive account of a scenario caused by "bad concrete in the spillway" that purports to be of relevance to flood- related Dam Safety, and it is not expected that any such account will ever be forthcoming. Because -- well, all the spillway piers could for instance be washed away and it wouldn't be a flood-induced Dam Safety problem. A mess operationally, for sure, but not a Dam Safety problem, which is the "principle driver" behind the replacement.

4.4.3 Even the state of the West Gravity Wall is brought up, although it won't be affected one bit by the spillway replacement project and therefore most definitely by force must be excluded from those things that possibly can be dreamed up as being relevant to the replacement deliberations. Still, there it is.

4.5 Repetitions and reiterations of well-known Opinions

"Endless" repetitions of an opinion also (see 4.4 above) detract from sound understanding, as they crowd the mind and, even if the opinion is patently wrong, it proverbially tends to become envelope in a false cloak of veracity over time.

"Opinions" as used here encompass what might be proffered as "engineering judgments" or "conclusions". The relevant Dam Safety issues at Pointe are, however, so simple and readily amenable to engineering analyses as to make such opinions redundant at best and simply wrong and prejudicial to the results of proper analyses at worst. Suffice it here to mention three (3) of the most prominent offenders, in this report as well as in many other Hydro documents.

4.5.1 Pointe cannot pass enough water to meet current Guidelines", page 4, and variations on the same theme.

4.5.2 "There are numerous indications that the concrete in various structures is in poor condition," page 4, again variously formulated.

4.5.3 "Built in 1911, it is the oldest station in Manitoba", page 3, more commonly found expressed as, The spillway at Pointe Du Bois is 100 years old.

(END OF PRESENTATION)

Written Presentation by Justin Jaron Lewis, December 13, 2012

This is to protest against the proposed rate increases to Hydro customers.

As a Crown Corporation, Manitoba Hydro has a responsibility to serve the public interest. Hydro does so by providing inexpensive electricity to Manitobans, by promoting energy conservation and alternative energy sources, and by working with First Nations and Metis communities to develop hydroelectric resources responsibly and without the type of exploitation of Aboriginal populations that took place in the past.

These goals are sometimes contradictory and difficult to implement, but in any case serving the public interest does not require maximizing Manitoba Hydro's profits. Nor does it require proceeding with new large-scale dam projects with the market for exported hydroelectricity is in steep decline.

In light of US plans for energy self-sufficiency it is likely that Manitoba energy will not continue to be in demand in the United States, and that Hydro will need to reframe its business model. But it needs to be kept in mind that Manitoba Hydro is owned by and for the people of Manitoba. If other options are available, Manitoba Hydro should not be run in a way that causes suffering to Manitobans -- as the proposed rate increase would.

Sincerely,
Justin Jaron Lewis

(End of Presentation)

Presentation by Ms. Sandra Giese January 6, 2013

Dear Members of the Public Utilities Board

This email is a follow-up to a phone conversation with Kurt Simonsen in December 2012.

Outlined below are my concerns and disapproval for the proposed Hydro increases for 2013.

1. Manitoba Hydro customers should not be on the hook to bail out Hydro losses due to their own poor management and planning. US markets did not materialize for past projects. The US energy attitude currently is to be self-reliant so why would Hydro expect them to need/want energy from the $6.2 billion Keeyask project?

2. All our energy "eggs" should not be

in one basket. Manitoba is fortunate to have the ability to produce energy by solar and wind. Nuclear was an option and maybe all is not lost in Pinanwa. Alternative and new energy technologies should be investigated and encouraged.

3. Past years of Hydro profits were "raided" with disregard for future projects. Capital project should be prepared for by allocating portions of those profits, financing it over 25-30 years and getting deposits from these prospective utility companies. These are private company principles and should apply to Hydro. Manitoba Hydro customers are not the piggy bank.

4. The recent Hydro statement warning customers to expect rate hikes of 3-4 percent for each of the next 18 years is proof that Hydro's management is both arrogant and out of touch with reality. Hydro's mandate is to produce power, not act like The Power.

5. Manitoba taxpayers and Winnipeggers especially are experiencing a wave of increases at every level. Increases for water, sewer, natural gas, garbage, user fees and every level of tax are snowballing while salaries stall. Seniors on pensions are especially vulnerable. It's getting tough out here for John and Jane Public.

I would ask the members of the Public Utilities Board to "rein in" Hydro and protect Hydro customers from these increasing rates.

Thank you. Sincerely,

Sandra Giese

(End of Presentation)

Presentation by Mr. John Corden dated December 23, 2012

Please deny the Manitoba Hydro the rate increases they desire.

It's just another form of taxation.

They want money to develop the infrastructure to send Hydro to the States then also complain that they are losing money because the US is using other forms of energy like natural gas.

Hydro is being horribly mismanaged. This is getting ridiculous. Please put a stop to this.

Thanks
John Corden
Flin Flon, Manitoba

(End of Presentation)

--- Upon adjourning at 4:53 p.m.

Certified correct,

____
Cheryl Lavigne, Ms.