MANITOBA PUBLIC UTILITIES BOARD

Re: MANITOBA HYDRO

NEEDS FOR AND ALTERNATIVES TO

REVIEW OF MANITOBA HYDRO'S

PREFERRED DEVELOPMENT PLAN

Regis Gosselin - Chairperson

Marilyn Kapitany - Board Member

Larry Soldier - Board Member

Richard Bel - Board Member

Hugh Grant - Board Member

HELD AT:

Public Utilities Board

400, 330 Portage Avenue

Winnipeg, Manitoba

March 20, 2014

Pages 2981 to 3223

APPEARANCES

Bob Peters	)Board Counsel
Sven Hombach	
Patti Ramage	)Manitoba Hydro
Marla Boyd	
Byron Williams	)CAC
William Gange	)GAC
Peter Miller	)
Antoine Hacault	)MIPUG
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Corey Shefman (np)	)
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--- Upon commencing at 9:00 a.m.

THE CHAIRPERSON: Okay. I think we can start. Ms. Boyd, good morning.

MS. MARLA BOYD: Good morning.

THE CHAIRPERSON: Spring colour?

MS. MARLA BOYD: I did wear my --

THE CHAIRPERSON: There you go.

MS. MARLA BOYD: -- spring colour. I'm hoping before the snow storm hits we'll get a little spring in. And I have two (2) undertakings to file this morning. I believe they're already with Mr. Simonsen. Oh, on their way, sorry. So the first one is a response to Manitoba Hydro Undertaking number 25. It's taken from transcript page 1,550. And we would propose that it be marked as Manitoba Hydro Exhibit 119.

--- EXHIBIT NO. MH-119: Response to Undertaking 25

MS. MARLA BOYD: Okay. The second is Manitoba Hydro Undertaking number 32. That's from transcript page 1,797. And we would propose that it be marked as Manitoba Hydro Exhibit number 120.

--- EXHIBIT NO. MH-120: Response to Undertaking 32

MS. MARLA BOYD: Thank you.

(BRIEF PAUSE)

THE CHAIRPERSON: Good morning, Mr. Peters.

MANITOBA HYDRO PANEL 5 CONTINUED:

GREG BARNLUND, Previously Sworn

LIZ CARRIERE, Previously Sworn

DARREN RAINKIE, Previously Sworn

MANFRED SCHULZ, Previously Sworn

CONTINUED CROSS-EXAMINATION BY MR. BOB PETERS:

MR. BOB PETERS: Yes, good morning. Thank you, Mr. Chairman. Good morning, panel. Good morning, witnesses. I understand it is the first day of spring today, so Ms. Boyd's colours are probably appropriate. At least we'll be able to find her in the blizzard. I'm sorry, that's -- that wasn't meant to be as cutting as I think I just sounded. So I'll start the morning off with an apology, Ms. Boyd.

Mr. Chairman, I do want to start with a

document that was in Board counsel's book of documents, Exhibit 58-4, and it was on page 39, a document that Ms. Carriere and Mr. Rainkie and I had some discussion on yesterday.

(BRIEF PAUSE)

MR. BOB PETERS: Ms. Carriere, this is the -- what the output looks like from the various runs that Manitoba Hydro has done on the financial analysis, correct? This would be one (1) of the output -- output products?

MS. LIZ CARRIERE: Yes, that's correct.

MR. BOB PETERS: And as we discussed yesterday, this has a -- a striking similarity to Manitoba Hydro's IFF presentation, correct?

MS. LIZ CARRIERE: Yes, it's produced from the same model.

MR. BOB PETERS: And so when the Board looks at the -- down the left-hand column under, "Revenues," they will see general consumer revenues at approved rates.

And those are the monies that consumers will pay at rates approved by the PUB, correct?

MS. LIZ CARRIERE: That's correct.

MR. BOB PETERS: And in -- and the growth in that column, Ms. Carriere, is not as a result of rate increases, but rather as a result of load growth.

Would that be fair?

MS. LIZ CARRIERE: That's right.

MR. BOB PETERS: The line underneath that, called, "Additional General Consumers Revenue," that would represent the additional monies that Manitoba Hydro is forecasting to obtain if it asks for rate increases as identified on the fifth line from the bottom of the page?

MS. LIZ CARRIERE: That's correct.

MR. BOB PETERS: And so to put a number to it, in -- in 2014, if Manitoba Hydro -- Manitoba Hydro obtained a 3.5 percent rate increase from the Public Utilities Board, and that's planned to generate $48 million, as shown on the second from the top line, correct?

MS. LIZ CARRIERE: That's correct.

MR. BOB PETERS: And then on a cumulative basis, that same math is done going forward, so that in 2015, there is 3.95 percent as the forecast's rate increase.

And if that does come to pass, the --

the monies that that obtains, the 56 million from that 3.95 percent rate increase, together with the 48 million from the previous year, would total $104 million, as shown on the second line item under 2015?

MS. LIZ CARRIERE: That's correct.

MR. BOB PETERS: The extraprovincial, I think the parties or the -- the panel's been aware that this represents the gross extraprovincial revenues that would be received from the export sales, both the firm contracts as well as the opportunity sales.

MS. LIZ CARRIERE: That's right.

MR. BOB PETERS: And then moving down to the expenses, the expenses are broken down for operating and administration, and that O&A expense, Ms. Carriere, that would apply across the entire Manitoba Hydro Corporation, and it would include operating and administrative expenses for -- for some of the major assets that Manitoba Hydro is putting into service, correct?

MS. LIZ CARRIERE: That's correct.

MR. BOB PETERS: And only when the asset is actually in-service will the operating and administration costs come to this operating statement?

MS. LIZ CARRIERE: That's true.

MR. BOB PETERS: Likewise, under

finance expense, while Manitoba Hydro is building Bipole III or Keeyask, any expenses related to the financing of that project are held as construction work in progress?

MS. LIZ CARRIERE: That's correct.

MR. BOB PETERS: And that account is a -- is a capital account that -- that doesn't show up on this operating statement while the construction is underway?

MS. LIZ CARRIERE: Correct.

MR. BOB PETERS: There's debt being incurred by Manitoba Hydro that is -- is being paid for, but it's not being shown on this statement?

MS. LIZ CARRIERE: That's right, not until the in-service of the units.

MR. BOB PETERS: All right. And so, just as an example, let's pick Bipole III, pick Keeyask. Manitoba Hydro is expending money on that. Mr. Schulz is borrowing the money to pay for some of that, and the interest payments or the finance charges related to that are being capitalized, and they're not showing up here yet.

MS. LIZ CARRIERE: That's right.

MR. BOB PETERS: The same can be said for depreciation and amortization. The depreciation expense related to any of those major assets doesn't hit this statement until that asset is in-service and -- and is functioning as the Corporation intended.

MS. LIZ CARRIERE: That's correct.

MR. BOB PETERS: And capital tax is not charged on those capital assets like Bipole III, Keeyask, Conawapa, until they're actually in service.

Is that correct?

MS. LIZ CARRIERE: No, that's not correct.

MR. BOB PETERS: I was on a roll.

MS. LIZ CARRIERE: Capital tax is a function of your debt and equity.

MR. BOB PETERS: I'm sorry, I...

MS. LIZ CARRIERE: Capital tax is a function of your debt and equity.

MR. BOB PETERS: So as Manitoba Hydro incurs the debt, even if it doesn't show up on the operating statement, it's paying capital tax on that?

MS. LIZ CARRIERE: Well, the debt will be on your balance sheet, but, yes, it is in -- it is -- cap -- capital tax is calculated based on that debt on the balance sheet.

MR. BOB PETERS: All right. Thank you. Mr. Rainkie, I don't want to dwell too long on this, but the non-controlling interest line that's on here relates to Manitoba Hydro's involvement in the Wuskwatim generating station?

MR. DARREN RAINKIE: Yes, it relates to NCN First Nations minority ownership in the Wuskwatim generating station.

MR. BOB PETERS: And when a non-controlling interest is shown in brackets, is that a good thing or a bad thing?

MR. DARREN RAINKIE: It's neither good nor bad, Mr. Peters. It's -- without getting too far into it, the -- the way that it works is that we include 100 percent of the revenues and expenses from the Wuskwatim limited partnership in our income statement. And then NCN's share of either the operating loss or the profit shows up in non-controlling interest.

MR. BOB PETERS: And this shows an operating loss, does it, in 2013 under the non-controlling interest line, Mr. Rainkie?

MR. DARREN RAINKIE: Yes, it would. As I explained yesterday, in the early years of a hydro electric generating station you would see that, and, of course, for the first ten (10) years probably, and for the -- the last ninety (90) years you'll see a profit out of it. So that's why I say it's neither good nor bad.

We twend -- tend to dwell on the first few years of -- of it in the rate-setting process because that's, you know, what were looking at setting rates in the short term. But for the purpose of this proceeding, I -- I guess I was trying to make an impression on the panel that we're looking at the long-term, and we -- we need to look at the long-term economics of all the options that are before the Board.

MR. BOB PETERS: Mr. Rainkie, are these numbers on the non-controlling interest line item, are these revised from what Manitoba Hydro filed at the last GRA?

MR. DARREN RAINKIE: Subject to check with colleagues, I think they're the same because they were built off of this -- the -- the analysis in the NFAT filing was built off of IFF12, so I don't think these changed.

MR. BOB PETERS: All right. What -- what did change, Mr. Rainkie, is Manitoba Hydro was going to renegotiate its arrangement with NCN in respect of the Wuskwatim project.

Is that true?

MR. DARREN RAINKIE: Yes. We went

through that as part of the last GRA, Mr. Peters.

MR. BOB PETERS: And has there been a renegotiation?

MR. DARREN RAINKIE: Not a finalization of that yet, Mr. Peters.

MR. BOB PETERS: And the thrust of that, for the benefit of the panel, Mr. Rainkie, is that because the project was going to operate at a loss for the number of years, or maybe the magnitude of the loss, the Corporation and NCN were going to renegotiate the prior arrangement?

MR. DARREN RAINKIE: You know, Mr. Peters, it's a complex subject just to try to boil down to one (1) sentence. I -- I would say that perhaps a better characterization of it is not so much the 'loss' word but that the economics of it had decreased since the original -- over the long term, once again, the economics had decreased since the original deal. And it was never -- you know, it was, as Mr. Wojczynski describes it, a quasi-commercial arrangement.

It was never our intention to put NCN into a difficult spot financially. And so it's -- but it's not just about the losses, as we call them, in the first few years. It's about the overall economics of the project over time, I guess.

MR. BOB PETERS: In the long-term, as you focussed on, Mr. Rainkie, the arrangement wasn't as profitable for NCN as what the parties may have thought going into the arrangement.

Would that be fair?

MS. MARLA BOYD: We're getting to a line, Mr. Chair, where we're crossing over the -- the terms of reference and the items that are not in scope. The commercial arrangements are -- are excluded from the terms of reference.

CONTINUED BY MR. BOB PETERS:

MR. BOB PETERS: I don't want to get into the specifics, Mr. Rainkie, but tell the Board, that non-controlling interest number, which direction will it be headed when you're finished your negotiations?

(BRIEF PAUSE)

MS. MARLA BOYD: The difficulty we're having is that the negotiations are underway, so we -- we're not in a position to comment.

(BRIEF PAUSE)

CONTINUED BY MR. BOB PETERS:

MR. BOB PETERS: In terms of the costs, Ms. Carriere, that are shown on page 39, as -- as on the screen, at what point in time is Wuskwatim costs a hundred percent in service?

Is that in the 2014 year?

MS. LIZ CARRIERE: That's correct.

MR. BOB PETERS: And then we saw yesterday, and if I could ask Ms. Villegas to put up Manitoba Hydro Exhibit 111, which was your financial panel presentation of yesterday, page 61? You provided assets and construction and progress information. The panel will note that Keeyask first units come in service perhaps in 2019.

Is that what -- what's to be depicted here?

MS. LIZ CARRIERE: '19/'20 -- fiscal '20.

MR. BOB PETERS: So even though we -- we use K19 as an example as the -- as the shorthand abbreviation, we're seeing that it comes in service in the following year?

MS. LIZ CARRIERE: Yes. Well, the -- the first unit comes in calendar year 2019. That's why we use the nineteen (19) -- denoted as nineteen (19), but it is -- you're correct, it's in fiscal '20.

MR. BOB PETERS: And in fiscal '21, Keeyask will be fully in-service, because as the Board will note there, that units four (4) to seven (7) of Keeyask will be online.

MS. LIZ CARRIERE: It'll be fully in service in 2022 for the full year. It's part -- the final units come on in '21/'22 -- or 2021, fiscal '21.

MR. BOB PETERS: And fully in service in fiscal '22?

MS. LIZ CARRIERE: Correct.

MR. BOB PETERS: And Conawapa, we can see also on that green line, the -- it's being staged over three (3) years, and so it's going to be fully in-service in 2029?

MS. LIZ CARRIERE: That's correct.

MR. BOB PETERS: Now, if we go back to page 39 of Board counsel's book of documents, Exhibit 58-4, the phasing in of those generating stations, Ms. Carriere, is also done on the operating statement, as well.

It's phased in, in proportion to the number of units that are coming online?

MS. LIZ CARRIERE: That's correct.

MR. BOB PETERS: And so on page 39,

Manitoba Hydro has included under the expenses the OM&A, the finance expense, depreciation, and taxes related to Wuskwatim on a full year basis under the 2014 column?

MS. LIZ CARRIERE: That's correct.

MR. BOB PETERS: And likewise for Bipole III, it would be in fiscal 2018, or would it be 2019 that Bipole III is fully reflected on this statement?

MS. LIZ CARRIERE: 2018.

MR. BOB PETERS: And then you've already told us that Keeyask is fully in service in 2022, and Conawapa is fully in service in 2029, so a hundred percent of those OM&A, finance, depreciation, and capital tax related to those projects will show up on this operating statement under those years, Ms. Carriere?

MS. LIZ CARRIERE: That's correct. I think I misspoke when I said the -- Bipole III comes into service in 2017/'18, fiscal '18, so the first full year of in-service is '19.

MR. BOB PETERS: All right. Thank you for that. To assist the panel in -- in a discussion that the Chair had yesterday, in Board counsel's previous book of documents, Exhibit 58-3, on page 145, there was a document that previous panel, I think Mr. Rainkie, wanted -- wanted your panel to -- to speak to, and at the bottom of this page 145, there was some information that was provided in a previous proceeding.

And would it be correct, Ms. Carriere or Mr. Rainkie, that what's shown in the chart is an attempt to show the -- the Board what those in-service costs would be when certain assets come in -- into service, in this case, it was Bipole III, Keeyask, and Conawapa?

(BRIEF PAUSE)

MR. DARREN RAINKIE: I'm just trying to remember this, Mr. Peters. It's a few years ago that we produced this. And this type of analysis is difficult, because what tend to -- tends to happen is this gets associated with the -- with the revenue requirement and the rate increases, as I was trying to explain yesterday.

So it's one (1) thing to calculate the amount of finance expense, depreciation, et cetera, operating costs that come into your -- the expense lines on your operating statement as the projects come into service. But how that affects rates is a different matter, and that's where we have to be very careful with this. As I said yesterday, we tend to feather in rate increases over time, because we recognize that over time these large plants will pay for themselves.

So while one might say, Okay, the operating costs, the cap -- the financing costs, and the depreciation of a particular plant comes into service at -- it's $300 million in a year, just to take a -- pick a number; that doesn't mean that we're increasing rates in that year by $300 million. And what's concerned me in past decisions is when we provide these calculations it's ended up in the dec -- in the PUB decisions that we've increased rates by that much, which is not right.

So I think we need to distinguish between operating costs on the operating statement, and how the revenue line works. And -- and I think this was an attempt to look at both the expense line and the revenue line. But we've struggled with these calculations, because we don't have -- we don't have a -- a rate-based rate of return type of rate setting methodology in Manitoba where one dollar ($1) of cost equals one (1) extra dollar of revenue. We have a judgmental cost of service methodology where we judgmentally apply for rate increases trying to smooth all these things out over time.

And that's -- that's where I think we get into the trouble with these types of calculations. They get misunderstood, or misused in certain circumstances, and that's why we're sensitive to them.

MR. BOB PETERS: All right. And I think by my count, Mr. Rainkie, I think that's the third time you've -- you've made your point, I think: to the Chairman yesterday, to myself yesterday, and then again this morning.

So let's -- let's move past that, and let's turn to page 147 of Exhibit 58-3. And this -- this schedule, Mr. Rainkie, takes out of it the -- the revenue or the revenue requirement component and just deals with it based on -- this is an example of the Bipole III costs without indication of -- of the revenue, or it's not tied to any rate increase.

Would you agree with that?

MR. DARREN RAINKIE: I think that's fair.

MR. BOB PETERS: All right. And in terms of the panel's understanding -- and we've got Bipole III, Ms. Carriere, on the screen -- but the very costs -- and -- and these -- these costs may be outdated.

Would -- is that correct, Ms. Carriere? These may be based on a previous capital expenditure forecast?

MS. LIZ CARRIERE: Yes. I'm not clear which -- whether this was prior to 10-2, or whether this is the current estimate.

MR. BOB PETERS: It's not intended to reflect the current estimate. It's just pulled out of a previous hearing -- a previous proceeding.

But in terms of the information that is shown, the very same information shown here is embedded in that spreadsheet that we were looking at in Tab 4, page 39 of Board counsel's Exhibit 58-4 book of documents, correct?

MS. LIZ CARRIERE: The costs of Bipole are embedded are in the -- on page 39, yes.

MR. BOB PETERS: And they're embedded each and every year that Bipole is in service throughout the -- I would -- I would suppose -- you've got the numbers for the fifty (50) year planning horizon on document -- at page 39 of Tab 4?

MS. LIZ CARRIERE: That's correct.

MR. BOB PETERS: And you've also broken it down on page 39 of Tab 4, under the same categories that you've shown here?

MS. LIZ CARRIERE: That' correct.

MR. BOB PETERS: And in addition to what's shown here, you've indicated there was also capital costs that is an expense attributed to that asset. And that capital costs -- that capital tax runs even before the project is in service?

MS. LIZ CARRIERE: It will be embedded in the debt on the balance sheet, yes. But just to point out, that there is no project specific debt associated with any one (1) plan -- or one (1) facility. So the finance expenses is just an allocation, or an estimation of what it approximately would be.

MR. BOB PETERS: All right. Well, that's -- that's interesting, Ms. Carriere. What you're telling the Board is that you don't put a mortgage on Bipole III, and a different mortgage on Keeyask, and a different mortgage on Conawapa. You've just got one (1) big blanket line of credit that Mr. Schulz manages?

MR. MANFRED SCHULZ: Good morning, Mr. Peters. Manitoba Hydro manages its treasury operations on a consolidated portfolio basis. So as Ms. Carriere was indicating, when we go to the market and obtain financing, for instance, the financing we obtained just a few weeks ago and that fifty (50) piece of debt, we wouldn't allocate it to any one (1) particular project.

So we look at it pragmatically as just being applied for what our cash requirements are as a general basis and from an accounting perspective. Nor do we allocate or attribute any of those funds to any one (1) particular project. To do that would be an inefficient use of our treasury operations. We'd end up having to borrow more monies. And so, therefore, as a general proposition for treasury operations as a best practice, we do it on a consolidated basis.

MR. BOB PETERS: Did I -- did you say five zero (50) year borrowing, Mr. Schulz, or was it a one five (15) year borrowing? Fifteen (15) year or fifty (50) year?

MR. MANFRED SCHULZ: Five zero (50). The term to maturity concluded in the year 2063.

MR. BOB PETERS: And -- and how big of a tranche did you go to market for on that piece?

MR. MANFRED SCHULZ: This particular one, I believe, was $60 million Canadian fixed-rate financing.

MR. BOB PETERS: I again missed the number. I'm not sure if it's the acoustics.

MR. MANFRED SCHULZ: Six zero (60).

MR. BOB PETERS: Okay. Thank you. Mr. Schulz, pretend Mr. Rainkie's not listening, but has Mr. Rainkie paid down any of the debt of the Corporation since he took his -- his executive position, or has the -- the debt of the Corporation increased since then?

MR. MANFRED SCHULZ: Mr. Rainkie is omnipresent, and I would fully expect him to -- to not only hear this, but understand this as well. As during this time, up until -- during the time when he was treasurer and -- and during the time that I have been treasurer as well, generally the trajectory is to add more debt, because we've been adding more capital investments into our plan.

MR. BOB PETERS: All right. And Mr. Rainkie's predecessor always had us -- he was always convinced -- or sorry, he was always maintaining that all debt is good debt. And Mr. Rainkie has learned at his -- his feet?

MR. MANFRED SCHULZ: Well, I'll just sort of comment on that and -- and nod my cap once again to Mr. Vince Warden, our predecessor. And -- and I think his perspective is there's good bad debt and our debt is good debt, because our debt goes towards the -- the building of capital investments, which reduce rates in the long-term.

MR. BOB PETERS: And as Manitoba Hydro is -- is building on these construction projects, net debt isn't decreasing. And although I don't think I saw it in Ms. Carriere's slides, I might have one in my book of documents later that the net debt is -- is on an upward trajectory?

MR. MANFRED SCHULZ: The net debt is on an upward trajectory until such a time, I think it's in and around 2027 in our Preferred Development Plan, when the -- the movement of our net debt actually moved down. And -- and if one were to, once again, and perhaps the -- the slide can be brought up by the page document management person of our Exhibit 111, page 62.

The next page shows, in fact, the net debt figures. And from a -- the green line here is depicting a Preferred Development Plan. And once the Conawapa generating station goes into service, the cash flow from operations are such that they exceed the amount of our investing activities. The net effect of that from a cash flow statement perspective is that we have debt retirements and our net debt goes down.

And the other interesting observation on this chart -- and I think Mr. Rainkie made this point yesterday -- is by the end of the study period to 2061, all of the net debt figures for both the net -- for the gas as well as the Preferred Development Plan converge. So the debt that would be undertaken through all of this period of time, by the end of the 2061 remains the same.

But to the point about the Preferred Development Plan, we do have debt retirement, and debt does go down as part of the natural consequence of when you have the Preferred Development coming in, and you have Conawapa and Keeyask, and you have all those revenues that are coming in, you know, business is running weak at cash flow, and then those extra cash flow we can retire the debt.

MR. BOB PETERS: And that would be the first time in the Corporation's history then that the net debt would have gone down, Mr. Schulz?

MR. MANFRED SCHULZ: I would have to go subject to check on that. I am a bit of a math nerd on the equity ratio. I'd have to check a little bit more on the -- the debt figures. It wouldn't surprise if there may be -- may have been years due to surplus cash flow at some point in time in history where there may have been the slight movement down on the net debt.

MR. BOB PETERS: And the -- the slide

62, which is shown in front of us, for Manitoba Hydro Exhibit 111, that assumes under the Preferred Development Plan that Manitoba Hydro doesn't then embark on development of further generating stations after Conawapa, correct?

MR. MANFRED SCHULZ: I think if you go to the slide just preceding that on page 61, if I can ask the -- there we go.

So what you're seeing here is this is the -- the information that Ms. Carriere brought forth for the staging in of the capital assets, in-service dates for the green line, which is the Preferred Development Plan, as well as the All Gas Plan. And so on the green line you have the Keeyask and the Conawapa. And you can see the staging in and the timelines for the -- the turbines coming in for Keeyask as well as Conawapa. But then you also do have some simple-cycle gas turbines coming in as part of the Development Plan, three (3) of them in the back years. That, of course, compares to the All Gas Plan which has nine (9) gas plants that are coming in before there's a refurbishment that goes on.

MR. BOB PETERS: And, Mr. Schulz, I don't want to go too far down this road, but Manitoba Hydro has additional hydraulic capabilities after

Conawapa, should it -- should it require them?

MR. MANFRED SCHULZ: Detailed discussions of that would certainly go beyond my expertise, but it's my understanding that there are some capabilities.

MR. BOB PETERS: And what you're showing now on the screen doesn't build another hydraulic generating station after Conawapa, but it relies on gas turbines out into forty (40) -- or sorry, 2043 out to 2049?

MR. MANFRED SCHULZ: That was the planning assumptions as you see them there.

MR. BOB PETERS: All right. If we could go back to Exhibit 58-3 and page 147 of that exhibit. I'm going to ask, Mr. Rainkie and Ms. Carriere, if you can provide an undertaking to the Board. And I'd -- I'd like to phrase it in two (2) -- two (2) ways that I think will be helpful to the panel.

The first version would be to provide a chart similar in form to this, but perhaps add on -- under 'depreciation' and 'amortization' maybe add capital tax as an item. And then for each of the years in the Preferred Development Plan that you've -- that you have as found at Tab 4, page 39, that we've been talking about, if you could provide the Board with the annual expenses related to some of the major assets that the panel has been -- been hearing about.

And, I suppose, for a reference, I would ask you to start by including Wuskwatim. And then show separately, in addition to Wuskwatim, the Bipole III costs. And also show separately, whether on the same table or a different, then the Keeyask costs. And likewise, for Conawapa, the Conawapa costs; and I appreciate they're later in time. And lastly, to add in the costs related to the 750 megawatt transfer capability transmission line that is part of Manitoba Hydro's Preferred Development Plan.

Can that be done, Ms. Carriere?

MS. MARLA BOYD: Mr. Chair, we'd be prepared to do that for Keeyask/Conawapa and the 750 tie-line, the assets that are at issue in the -- the NFAT, but we've had the conversation before about Bipole III, and I think the same thing applies with Wuskwatim: I'm not sure it's relevant to the discussion of the Alternative Development Plans that are before the Board.

MR. BOB PETERS: Well, you know, I -- I'll let the panel decide, but let's be clear that in terms of the rates that we talked about yesterday, there will be rate impacts on consumers related to

Bipole III, because that's going to be an expense that's coming to the Operating Statement when Bipole III comes in service, and for which the Board has already reserved or asked the Corporation to set aside a deferral account.

And then yesterday, I believe we heard from Mr. Rainkie that the Wuskwatim costs coming to the Operating Statement have put pressure on IFF13, and that may be the part of the reason for a rate increase that is being sought simultaneous to the NFAT.

But just to show the costs that are already embedded in the spreadsheet, as I call it, at page 39 of Tab 4 of Board counsel's book of documents, related to Exhibit 58-4 -- that's why, Mr. Chairman, I requested Bipole III and Wuskwatim, and if the panel is not interested in the Bipole III and Wuskwatim costs, then Ms. Boyd's objection should be upheld.

So I'll move past that unless there's further questions from the panel of me. The panel can decide how much of that information it wants. We have the undertaking from Ms. Boyd, and the panel can decide if it wants the additional information or not.

(BRIEF PAUSE)

MR. BOB PETERS: And, so --

THE CHAIRPERSON: Mr. Peters, the -- the panel has quickly knocked heads about this, and -- and frankly, I kind of consider this to be similar to line losses. I mean, the -- the Bipole is going to be there. It's got to be paid for. We're not challenging the merits of the Bipole. We're simply wanting to know what -- what that would mean for rates, and I think to understand the costs related to it, we -- we need to have them, because they have to be paid for. It's -- it's not an issue of challenging the merits of the Bipole.

MR. BOB PETERS: All right. Thank you. So, Ms. Boyd, I -- I would accept your undertaking, if you would add to it the Bipole III and the Wuskwatim costs as -- as suggested by the -- the Chair.

MS. MARLA BOYD: We'll have to take that away. The difficulty I'm having is that those are the same across all the development plans, so when you look at the information before you, you have already embedded in it Bipole and Wuskwatim. They don't change among the development plans.

So when Ms. Ramage talked to you on the first day about Type 1 Level 1 information and Level 2 information, you're getting down into the details of something that isn't going to change regardless of the path that we go down.

So what's important, and I think what the panel needs to focus on, is the areas that are at issue, and those are Keeyask, Conawapa, and the tie-line. So that would be the reason we'd suggest that the undertaking should focus on those areas.

MR. BOB PETERS: Well, Ms. Boyd, has -- that may be a matter you want to submit in closing submissions, but I believe the panel has requested the information. So if the pan -- unless the panel changes its mind, there will be an expectation from this side of the room that that information will be provided, which would include, Ms. Carriere and Mr. Rainkie, the updated capital costs that the Board heard about on March the 10th, 2014, please.

MS. MARLA BOYD: Are we clear that the updated capital costs from March the 10th are Keeyask and Conawapa only?

(BRIEF PAUSE)

MR. BOB PETERS: I'm not looking for -- and -- and just so you're clear, Ms. Boyd, I'm understanding from your previous witnesses that the capital costs for Bipole III are the same ones we heard about at a GRA, and the Wuskwatim costs have gone up, according to your IFF13, by $52 million, which we'll -- which we'll suggest is insignificant, so it can stay at the -- at the costs that were last discussed.

Yes, the undertaking, if I can restate it and ask for Ms. Boyd's concurrence at this point in time, is to provide a table in similar format to what is shown on the screen as page 147 of Exhibit 58-3, and on an annual basis, provide the costs, including operating and administration segregated from finance expense, which would be segregated from depreciation expense, which would be segregated from the capital tax for the major capital projects, which include Wuskwatim, Bipole III, Keeyask, Conawapa, and the 750 megawatt transmission interconnection line that is part of Manitoba Hydro's Preferred Development Plan. And I believe the information is best provided out to 2062, because I believe it's already embedded in the spreadsheet that I have at Tab 39 -- at Tab 4 of Board counsel's book of documents.

MS. MARLA BOYD: We'll do our best, Mr. Peters, but some of that information is simply not available. Some of the runs that you're contemplating have not been run, so when you start to layer in new capital costs, there isn't all the information there.

So we have the undertaking on the record, and we'll do our best to comply with it, but I can't promise you that it'll all be there.

--- UNDERTAKING NO. 49: Manitoba Hydro to provide a table in similar format to what is shown on page 147 of Exhibit 58-3, and on an annual basis, provide the costs, including operating and administration segregated from finance expense, which would be segregated from depreciation expense, which would be segregated from the capital tax for the major capital projects, which include Wuskwatim, Bipole III, Keeyask, Conawapa, and the 750 megawatt transmission interconnection line that is part of Manitoba Hydro's

Preferred Development Plan;
will also include the
interest costs associated
with the sunk costs in the
plans without Keeyask or
Conawapa in them

CONTINUED BY MR. BOB PETERS:

MR. BOB PETERS: I'm prepared to talk to you offline, Ms. Boyd, but I don't understand what wouldn't be there, because we now know the new capital costs of Wuskwatim and -- sorry, the new capital cost for Keeyask and Conawapa, and I had understood that the financial analysis that is being done for March 24th and March 31st will be including the new capital costs, so am -- am I missing something?

MS. LIZ CARRIERE: Those runs will also include the DSM and lower load growth, so we're not really starting to compare apples and oranges. What we provide you on -- on March 24th and 31st will now no longer be directly comparable to all of the 2012 information, because we're incorporating the 2013 load and so forth.

The reason why we need the runs to be done is so that I can allocate finance expense to

Keeyask and Conawapa, so, in order to be able to determine that amount --

MR. BOB PETERS: All -- all right. I'm prepared to accept and move forward with the best efforts of the Corporation, Mr. Rainkie, unless you have a further comment.

MR. DARREN RAINKIE: Well, I do, and this is -- this is the difficulty for me is that you're overly focussed on the cost side, so if the intention of the undertaking is to understand the rate impact over time, then we would have to attribute the revenue as well, and I think that -- that's difficult in the integrated nature of our models.

MR. BOB PETERS: I have your point, and I just want the costs from you, Mr. Rainkie.

MR. DARREN RAINKIE: Well, I don't know if you want the rate impact, Mr. Peters, or you want to go on about the costs, but I guess I -- I'm try -- to -- to do a piece of work, you have to understand the intent, and -- and I guess you prefaced your undertaking with the fact that you understand the rate impact, but we seem to not want to talk about the revenue side of it. That's just an observation.

MR. BOB PETERS: Thank you for your observation, Mr. Rainkie, and while we're on the discussion, when providing that undertaking, I think it may be helpful if two (2) views are provided to the Board, Mr. Rainkie, and one (1) of the views would be that the finance expense and the depreciation would be on a hundred percent of the capital cost, and then a separate view of the same undertaking, but done on the basis of the notional allocation of internally generated funds to the major projects. Is that possible, Mr. Rainkie?

(BRIEF PAUSE)

MR. DARREN RAINKIE: I wasn't talking about internally generated funds allocation, which we don't even do in practice, Mr. Peters. I was talking about the fact that these are revenue-producing assets, so the rate impact of them is not solely the costs, and that's -- that's a tougher thing just to segregate out and assume in the undertaking. But if the intention is to understand, as the Chairman indicated, the rate impact of the projects, then, one would have to turn their mind to that as well.

MR. BOB PETERS: I had understood your point, Mr. Rainkie, but if we could turn to Board counsel's book of documents and explain to the panel, Mr. Rainkie, on page 142 found under Tab 15 of Exhibit PUB-58-4. We heard, about ten (10) minutes ago, from Ms. Carriere, and I think seconded by Mr. Schulz that when the Corporation borrows monies, it doesn't allocate a specific charge against a particular asset for that debt.

Would I have restated that correctly, Ms. Carriere?

MS. LIZ CARRIERE: Yes, that's correct.

MR. BOB PETERS: But what Manitoba Hydro does do, is it collects revenues from consumers, from export revenues, and it uses those revenues to -- to fund its operations, correct?

MS. LIZ CARRIERE: Correct.

MR. BOB PETERS: And to the extent that there is a surplus over-funding the base operations of the Corporation, Manitoba Hydro has -- has surplus funds, or additional funds from internally generated sources?

MS. LIZ CARRIERE: That's correct.

MR. BOB PETERS: And when Manitoba Hydro has internally generated funds, those internally generated funds could, at least notionally, be allocated to the major capital projects to reduce the finance expense and perhaps -- related to that -- to that asset?

(BRIEF PAUSE)

MS. LIZ CARRIERE: Notionally, we -- you -- that cash would be avail -- to be -- to pay for other things not included in funds for operations.

MR. BOB PETERS: Notionally, the money, Ms. Carriere, would be available to fund major capital projects?

MS. LIZ CARRIERE: That's correct.

MR. BOB PETERS: And in terms of funding major capital projects, if -- if Manitoba Hydro had -- had one dollar ($1) from internally generated funds surplus to fund -- to funding its base expenses, or its -- its operation expenses, Manitoba Hydro could notionally allocate how much of that dollar would go to Bipole III, to Keeyask, to Conawapa, or to the transmission line, correct?

(BRIEF PAUSE)

MR. DARREN RAINKIE: Hi, Mr. Peters. I guess what I'm having trouble with is that in chapter 11 of the NFAT filing and Appendix 11.4, which includes two hundred and sixteen (216) financial runs of all the different variance of the development plans and uncertainty analysis, we've done rate impact analysis of the plants. It's a differential analysis between all of the different options.

What it shows us for the Preferred Plan at reference, is that we would have the lowest rates out of all those plans at 106 percent, I think it is, over the fifty (50) years. It shows us that an All Gas Plan would have about 176 percent rate increase over that period. So, you know, I think that's the information that the Corporation has spent a lot of time and energy putting together showing the Board the -- the differential rate impact, if you like, of all the different options that are before us and being discussed.

So what we're doing now is we're trying to hive off little pieces and do sub-calculations. And I'm -- I -- I -- what we're doing is we're creating more work in already a constrained situation where we're struggling to put together the DSM information, you know, so that other parts of the panel can continue on.

So what I'm having a hard time with is why the analysis that we've done for this very specific purpose, to show the financial impact and the rate impact of the development plans before the Board in terms of its report, is going to be redone in some different form, which is looking awfully like what we would do at a general rate application. So I don't know. I -- I'm just not understanding why what we've provided in chapter 11 in the attachments is not sufficient for the Board's needs and that we need to go down this track, which looks a lot like information requests I get at every general rate application.

MR. BOB PETERS: So, Mr. Rainkie, you're suggesting to the panel that the specific impact of internally generated funds on the new major capital projects is not something that would be relevant to the panel's consideration?

MR. DARREN RAINKIE: No. What I'm suggesting is that within the financial runs that we've already provided that the information is -- is there. We've provided a cash flow statement, Mr. Peters. That cash flow statement goes out to 2060 for each one of the runs. It shows you the cash flow from operations. It shows you the investing activities. It shows you the financing activities that Mr. Schulz undertakes. So it's all baked into the fabric of what we've done. That -- that was the intention of that analysis, was to show what the rate impacts were over time, and the impacts on customers.

I suppose if we spend enough time at anything we can pull it out and try to intelligently organize it, but I -- we're moving away from then differential analysis of the different plans to pulling out specific -- you know, specifically derived calculations. And I'm not sure we're not straying from the purpose of the hearing.

MR. BOB PETERS: So, Mr. Rainkie, as long as the undertaking is provided that we've talked about then, based on the finance expense on a hundred percent of the capital cost, then I won't go down the -- the road for a further undertaking to layer over that net of internally generated funds. And I'll move on, sir, to -- to just talk about the net debt situation as a -- as a new topic, Mr. Rainkie.

THE CHAIRPERSON: Mr. Peters, I wonder if I could go back to have Mr. Rainkie talk about the blip that's occurring in the -- in the rate increases that we're projecting based on the Preferred Development Plan. And this is the -- looking at year 33 out, where we get -- you know, we get three point nine five (3.95), and all of the sudden we get a drop in rates.

And I guess the difficulty I have -- and I understand what you're saying, and that it's hard to predict what the -- what the PUB will approve as rates that far out. But looking at it very tactically, from your perspective, I mean, you're indicating to ratepayers that they'll be paying 3.95 percent out till '31/'32, effectively doubling their rates.

It seems to me that telling them that rates will go up 3.95 percent until 2025 suggests to me that you're going to get a 60 percent rate increase over and above what they're paying now as opposed to a hundred percent rate increase over what they're paying now; a very different picture from a perspective of the ratepayer, I would think. So starting from a base of seven (7) cents, they would go up, say for the sake of argument, four (4) cents, five (5) cents. You're getting twelve (12), which is still competitive with other jurisdictions, as opposed to a doubling of rates, which did -- to the zone of fourteen (14) cents or fifteen (15) cents in today's dollar.

So, tactically, I guess I'm questioning projecting 3.95 out -- 3.95 percent out for twenty-one (21) years, when -- when there might be a better picture that can be drawn for ratepayers than is currently the case. But I'd like to hear your point of view about that.

MR. DARREN RAINKIE: You know, that's a -- that's a really good question, because I pondered that myself as I -- as I started summarizing the evidence in my own mind and wondering how the Board was going to deal with that; what I call the correction factor in that year after the -- you know, the end of the twenty (20) year period. And I actually asked my staff, Could we somehow smooth that out and show a little bit more of what we thought -- thought would really happen, and I was trying to do that a little bit yesterday. So I appreciate the question, actually.

I think what we're -- what we're trying to show in our twenty (20) year forecast is that we're going for all -- for the credit rating agencies and other stakeholders that -- that watch our financial integrity, is that we can -- we can undertake the Development Plan, manage it appropriately, and come back to our financial ratio.

So I think when I -- when I look at the twenty (20) year snippet, it's saying: What do we need to do? What do we need to do to be able to make sure that we can maintain the financial integrity of the Corporation and have reasonable rate increases?

When I move to a longer picture now of

fifty (50) years, and I now have the information to go out that far which we provided in the NFAT filing, I see that correction factor. I see the types of cash flows and net incomes that we're generating after the twenty (20) year period.

So what I -- what I think is, is that probably after -- I can't speak for our Board, but just -- just from a perspective of -- of hashing it out here, we make the investment in these large plants. We update our forecasts every year. And as we see the plans unfold and the cash flow and the net income come in closer term I think we will start easing off on the 3.95s earlier.

I'm a little hesitant to promise that while we're in the middle of a large investment like Conawapa, you know, that comes into service between '29 -- sorry, '26 and '29, I think it is.

So it's tough to predict what we would exactly do, but I would think that what you would do is see -- rather than this -- you know, you would see -- I don't know how the court reporter is going to capture this, but more of a smoothed-out rate increase. And I've actually thought about perhaps drawing one out for the Board, and -- and showing it -- and showing it to you as an undertaking just to -- just to show what we think might happen in the real world.

But I -- that's why I don't believe there's a lot of intergenerational or no intergenerational equity in the plan. Because I think if you look at what happens over the long-term financial picture, we can ease off the 3.95s before the end of the twenty (20) year. I'm -- I would be hesitant to ease off before that when we're in the middle of a large, you know, investment cycle.

I take a bit of comfort, although I know it doesn't perhaps resonate much with the individual customer, that when we look what's happening in other jurisdictions in terms of 6 and 9 percent rate increases that we'll still maintain, you know, competitive and affordable rates. And so we're always trying to juggle those two (2) factors, financial integrity and competitive rates, on behalf of customers, but I'm hesitant to show something that is too favourable while we're in that investment period.

But I think if we can get through that successfully, we will have produce a really good system for our customers over the long run, kind of thing. That's -- that's -- I hope I'm answering your question, at least in part.

THE CHAIRPERSON: I don't want to

belabour this point, but I think we both need to reflect about this some more. I mean, it -- it does paint -- in terms of the -- the plan that we've been talking about, the ref/ref/ref, it does paint a picture that would suggest that the ratepayers at the front end will be paying a significant rate increa -- increase going forward when there might be another alternative that is available to us, and -- and likely to represent the path that would be followed by -- by Hydro in terms of, you know, smoothing out the -- the pain to ratepayers, and likely be the path that PUB will likely favour, as well. The ones -- you know, who knows we'll be sitting here at that -- that time period.

But it seems to me that if -- if that is the approach we normally take in a -- in addressing rates both from your side and our side, that might represent a more realistic picture to present to ratepayers than -- than is currently the case.

MR. DARREN RAINKIE: Maybe, Mr. Chair, I'll -- I'll ponder whether I'll -- whether I'll volunteer an undertaking to that 'cause I -- I seriously have spent a lot of time thinking -- thinking about that.

I'll just offer one (1) observation to make sure I know -- I've said this a couple times already, but I repeat things because they're important -- is that the -- the new resources that are contemplated in any of the plans don't come into service before 2020 and '23. You know, whether it's Keeyask or -- or Gas.

The front part of this forecast that we have is real. The 3.95s are real in the next six (6) to eight (8) years. They're more a function of refurbishing existing infrastructure and reliability expenditures like Bipole III. There is no, you know, 2 percent rate increase on the Gas side. I will not be recommending to our Board 2 percent rate increases if we go down the All Gas, you know, route for instance, because there's no differential costs in that part. In fact, if I have to start writing off some of the costs of Keeyask and Conawapa under that scenario, there's going to be more pressure on my income statement and revenue requirements.

So that's why I'm focussed more towards, you know, the back end of that twenty (20) year period when the investment period is -- is winding down, if you like, and we're seeing the cash flow coming both out of Keeyask and then eventually Conawapa. I -- I think the curve would go that way.

But the first front part of this -- and

I read in the paper every second day that if we just do gas, you know, we'll have a 2 percent rate increase, and I'm not sure where that comes from. That certainly isn't inherent in the two hundred and sixteen (216) runs that we did in this -- in this proceeding, in terms of financial pro formas, so.

I -- I just -- you know, there's different time periods here, I think is -- is what I'm trying to say, and we have to keep that in mind. But can you let me ponder that a little bit more, and -- maybe there's something I can do to help the Board through this.

CONTINUED BY MR. BOB PETERS:

MR. BOB PETERS: Thank you, Mr. Rainkie. And as you're pondering that, to the extent that there's a smoothing of the -- the rate arch, there could be a comparable -- or there could be a -- a smoothing of the -- the rate arc for other plans as well, correct?

MR. DARREN RAINKIE: There might be a smoothing, but actually, it might go the inverse way if you look at the back end of the All Gas Plan. For instance, I think we start showing losses at the back end, so there might be, you know, an uptick actually.

So I'm not sure if it's a smoothing, but it might be different time periods, Mr. Peters.

MR. BOB PETERS: All right. So you can reflect on that as well, Mr. Rainkie. If we could turn to Board counsel's book of documents 58-4, and go to page 161. I just want to pick up a point from Ms. Schul -- Mr. Schulz and Ms. Carriere this morning on the net debt.

This -- this graph shows the net fixed assets and net debt of the Corporation based on a -- I guess it was IFF11-2 is what it says here, Mr. -- Mr. Schulz, correct?

MR. MANFRED SCHULZ: Correct.

MR. BOB PETERS: And what's going to happen when the information is updated, and I'm not asking for this particular chart to be updated, but the -- the net debt shown in, I guess it's the red lines, will increase as a result of some updated information that's been provided recently?

(BRIEF PAUSE)

MR. MANFRED SCHULZ: If you're referring to higher capital cost estimates placing pressure upon net debt levels, and those net debt levels going up incrementally over what we have in the NFAT filing, we would expect that there'd be higher net debt levels as a result of that.

MR. BOB PETERS: And in addition to that, though, the -- the assets would have, presumably, a higher value as well?

MR. MANFRED SCHULZ: Also correct.

MR. BOB PETERS: Now, the -- the part that's shown in orange at the bottom, and perhaps overshadowed by the -- by the mountains is -- is the amount of accumulated capitalized interest, Mr. Schulz?

MR. MANFRED SCHULZ: That's being depicted as an accumulated capitalized interest, starting in 1990 on this chart. When constructing this Information Request as part of a previous general rate application, this was specifically asked of us. I -- we questioned the relevancy of this because of just the starting point. It was assumed that it started in 1990, indexed, essentially at 1990, when we would have had accumulated depreciation, or accumulated capitalized interest before that. So we're not sure of the relevancy of that, but you -- you do see what you see there.

MR. BOB PETERS: All right. And if we

go to the next page, 162, Mr. Schulz, that orange bar chart is reduced to a table. Perhaps it was the other way around.

And at the bottom of that table, it shows that in 2032, the net debt -- sorry, the accumulated capital interest -- the accumulated capital interest in 2032 would be around $6 billion, correct?

MR. MANFRED SCHULZ: That's what's being shown there, but the amount of accumulated capitalized interest that would have been part of the net assets starting in 1990 is the point in terms of the continuity of this schedule, so.

MR. BOB PETERS: All right. Does that answer, Mr. Schulz, suggest that that $6 billion should be a higher number? Is that what you're suggesting?

MR. MANFRED SCHULZ: Well, built into the asset, that the starting point in 1990 would have been some capitalized interest as the starting point. So conceptually, I would agree.

MR. BOB PETERS: And the point I'm getting at, Mr. Schulz, is that if the capitalized interest account in 2032 is about $6 billion, that relates to -- at that point in time, would it be fair to say that relates primarily at that point to the Conawapa generating station?

MR. MANFRED SCHULZ: This would be looking at the entire capital array of our portfolio, and would certainly extend beyond just Conawapa. I mean, again, this is further to the point that I think that Mr. Rainkie made, we don't hive out in particular -- in -- in this particular schedule how much is attributed to Conawapa, or Keeyask, or Bipole III, or Wuskwatim, or any of the other vast array of capital projects we would have had starting since 1990 on this -- on this schedule.

MR. BOB PETERS: When the last of the major assets in Conawapa was to come in service, Mr. Schulz, that accumulative capitalized interest number would decrease significantly, would it not?

(BRIEF PAUSE)

MR. MANFRED SCHULZ: It's an accumulation, so I -- I really wouldn't see it going down as a function of the arithmetic.

MR. BOB PETERS: And when the capitalized interest relates to an asset that comes in service, Mr. Schulz, the capitalized interest related to that project is then brought over to the operating statement, but that capitalized interest would then be amortized over the life of the asset. Would that also be true?

MR. DARREN RAINKIE: Yes, Mr. Peters, that's both consistent with accounting treatment, that you capitalize interest costs while a project's being developed, and then it becomes part of the capital cost of the project when it goes in service and it's depreciated.

It's also consistent with intergenerational equity considerations on rate setting that you don't charge the costs of, you know, plants that you're building to today's ratepayers, and that's going back to the conversation I just had with the Chair, is why I think that the rate increases the next number of years are -- don't vary between the development plans, because we're not charging any of the costs of the development plans to our operating statement or through rates.

MR. BOB PETERS: All right. And maybe related to that, if we can jump ahead to Tab 31, page 298, of Board counsel's book of documents, which is PUB Exhibit 58-4, and then we can see the chart at the bottom of the page.

Mr. Rainkie, Ms. Carriere, Mr. Schulz, this relates to showing the panel what the impact would be if there was a deferral of either Keeyask or Conawapa, correct?

MS. LIZ CARRIERE: That's correct.

MR. BOB PETERS: And in -- when we talk about a deferral of Keeyask or -- or Conawapa, the major cost components of a deferral, Ms. Carriere, would be the finance expense, and I suppose the escalation, or the inflation attributed to the cost of the project?

MS. LIZ CARRIERE: That's correct. There's some minor increase in the base cost, but there -- the majority of it is -- is escalation and interest.

MR. BOB PETERS: And when there's a one (1) year deferral of Conawapa calculated based on the data that was available when this Information Request, found at page 298 of Board counsel's book of documents, was prepared, at the reference case, there was a $338 million one (1) year deferral cost, correct?

MS. LIZ CARRIERE: Under the reference scenario, correct.

MR. BOB PETERS: And for Keeyask, a three (3) year deferral was about $733 million, correct?

MS. LIZ CARRIERE: Correct.

MR. BOB PETERS: Now, in terms of

recovering those costs, because those costs -- those costs would be capitalized while the project was in the deferral stage, correct?

MS. LIZ CARRIERE: That's correct.

MR. BOB PETERS: And once the project then came in service and was no longer delayed, those deferral costs would be spread over seventy-eight (78) years and recovered through the operating statement at that time?

MS. LIZ CARRIERE: That's right. They would be spread over the useful life of the asset.

(BRIEF PAUSE)

MR. BOB PETERS: And in -- in using -- so the $700 million of three (3) year deferral on Keeyask over seventy-eight (78) years, we're -- you know, we're around the $10 million a year mark in -- in nominal dollars, Ms. Carriere?

(BRIEF PAUSE)

MS. LIZ CARRIERE: I think the math is correct, yeah.

MR. BOB PETERS: If not correct, in the

ballpark?

MS. LIZ CARRIERE: That's right.

MR. BOB PETERS: All right. I want to turn, Mr. Schulz, perhaps to page 173 of Board counsel's book of documents found under Tab 19. And this -- this, in part, relates to what you talked with the Chairman about yesterday, and also what Mr. Rainkie, and it was -- was taken under consideration this morning, and when -- and when Manitoba Hydro presented the cumulative rate increases and the correction line that's been discussed with the -- with the panel.

Ms. Carriere, if Manitoba Hydro was to keep a 75:25 debt-equity target as the metric that was being met through the rate increases, does that result in that line being very jagged after the 2032 period?

MS. LIZ CARRIERE: I'm sorry, I'm not sure -- sure what you're asking. Is -- is --

MR. BOB PETERS: Let me try again. And I apologize if I -- if -- if...

(BRIEF PAUSE)

MR. BOB PETERS: Perhaps, if we can go back to your document, which is Manitoba Hydro Exhibit

111, and I'll pick page 51. If you think there's a better page to show the panel, please -- please ask Ms. Villegas to put that up.

But this was the cumulative rate increases for the Preferred Development Plan under the reference scenario, correct?

MS. LIZ CARRIERE: That's correct.

MR. BOB PETERS: And up until 2032, the rate increase trajectory was premised on a 75:25 debt-equity target at the end of 2032?

MS. LIZ CARRIERE: That's correct.

MR. BOB PETERS: If that debt-equity target, Ms. Carriere, continued past 2032 out to 2061, what would that line have looked like?

(BRIEF PAUSE)

MS. LIZ CARRIERE: If you continue the 75:25 debt-equity ratio beyond the 2032, you see roughly the same pattern. You still see a correction factor, but you see relatively the same pattern. It result -- gives you the same results by the end.

MR. BOB PETERS: And so if we -- we see depicted on Board counsel's book of documents, page 173 of Exhibit 58-4, the -- the graphing of the projected equity ratio for electric operations.

And what we see here, Ms. Carriere, is just up to 2032, correct?

MS. LIZ CARRIERE: That's correct.

MR. BOB PETERS: And likewise, if we go to page 174 of Board counsel's book of documents, just to the next page, we see the interest coverage ratio over that same time horizon. And then we also go to page 175, and the panel will see the projected capital coverage ratios over the same time horizon, correct?

MS. LIZ CARRIERE: That's correct.

MR. BOB PETERS: Now, in terms of the interrelation as between the debt-equity ratio and the interest-coverage ratio and the capital-cost ratio, Mr. Schulz, is there a direct correlation?

(BRIEF PAUSE)

MR. MANFRED SCHULZ: I'm not exactly sure what you mean by direct correlation. The ratios are intrinsically linked in terms of being associated with the financial performance of the Corporation, so that you would see, as you have an erosion in your equity ratio you would have generally an erosion in your interest coverage ratio. So to that extent you would see a correlation if you will, but I'm not exactly sure what your question is looking for.

MR. BOB PETERS: Can you tell the panel, Mr. Schulz, how strong that correlation is? Because if the debt-equity -- we see on these three (3) charts, and that's perhaps the best example I can come up with on short note, that where the debt-equity ratio appears to take a bit of a dip -- more than a bit, but a dip on page 173, and then we jump back to the -- we can go to page 175 and have a look at our capital-coverage ratio, the Board won't see the same missing of the target by the same magnitude, will it?

(BRIEF PAUSE)

MR. MANFRED SCHULZ: Again, I don't think that I would be inclined to run any kind of statistical correlational models for you on this, Mr. Peters. But what you do see in -- for instance, if you're comparing your page 173 to 174, through the period, for instance, down to year 2021, you see on the equity ratio that tends to be the -- the bottoming out of the equity ratio. And that aligns to the lower points on the interest coverage ratio as shown in the PUB book of documents 174.

And the relationship is logical, because as you take on more debt -- your equity ratio goes down because you're taking on more debt. The more debt you take the more leverage you have, the more impact there is going to be in terms of the interest-coverage ratio, because you have more interest payments to make. So that relationship is fairly intuitive and logical. And -- and, in general form, you do see that general trajectory being somewhat similar.

So in this case here, in the year 2021, in that period of time, you see them both showing their -- their lowest points on the chart.

MR. BOB PETERS: I follow your -- your answer, Mr. Schulz, in respect of the debt-to-equity ratio and the interest coverage ratio. But then I suppose it depends on whether your business is capital intensive or not capital intensive, as to what impact that would have on your capital coverage ratio?

MR. MANFRED SCHULZ: The capital coverage ratio would be impacted by the amount of our base capital. So if we have higher levels of base capital then -- in one (1) year compared to the other, then you would see that ratio being affected by that. So it's a different measure in terms of the compared or set or at play.

MR. BOB PETERS: All right. And so it's a different measure. And in terms of base capital, that's the underlying discretionary management issue as to -- as to where that capital gets spent on the base or sustaining capital basis?

MR. MANFRED SCHULZ: I'll start on this. And I'm sure Mr. Rainkie will perhaps jump in on this, as well.

I don't know that it's a discretionary item -- I wouldn't characterize it necessarily that way, Mr. Peters. We consider base capital to be inherently part of what we do, and very important to what we do. It's part of replenishing our ageing infrastructure and doing all those things that are important to maintained reliability.

So I caution around the word of it being discretionary. It's a different form of capital expenditure.

MR. BOB PETERS: I wasn't suggesting that the discretion was whether -- you know, what any specific project is. But when you get to the base capital projects, some of them may get bumped year-to-year depending on the Corporation's categorization as to how essential they would be in a particular calendar of fiscal year. Would that -- would that be true?

MR. DARREN RAINKIE: Yes. I think we can accept that, Mr. Peters, as that it's a -- I think Mr. Schulz's point was that the whole thing is isn't discretionary, that -- and -- and certainly there are -- there is pressure on spending more on base capital, given the age of our system, but we do have the ability to, you know, from a risk based approach for projects and move them around to some degree.

MR. BOB PETERS: But that's not a surprise to the Corporation, Mr. Rainkie? The Corporation knew that these base capital costs were coming for -- for a long time?

MR. DARREN RAINKIE: Well, it's not a surprise, Mr. Peters, but I think that all utilities are grappling, if you like. We saw the slide in Mr. Barnlund's part of his presentation, about $350 billion of the investment in the next number of years. They're all grappling with the exact amount, and what -- what is the right asset to replace, and when, and what's the right bifurcation between maintaining an old asset and buying a new one. Kind -- kind of like the decisions you make with your car on a daily basis, unless you -- unless you replace it every year, Mr. Peters.

MR. BOB PETERS: Well, to some extent, Mr. Rainkie, you're -- you're replacing the fence while you're putting an addition on the house here.

Isn't that -- isn't that a loose analogy?

MR. DARREN RAINKIE: I don't know. You've worn me down over the last day, Mr. Peters. I -- I think so. I think so. I don't think I'm going to disagree with you on that.

MR. BOB PETERS: So to some extent, these base capital, or as you've taught me, the sustaining capital expenditures, those also are putting pressure on consumer rates?

MR. DARREN RAINKIE: Most definitely. That's why the myth of the 2 percent rate increase in Canada is -- is that, a myth.

MR. BOB PETERS: Ms. Carriere, when you told the Board earlier that if you were to measure only against the debt-equity ratio, the trajectory would be, I think you said similar, or perhaps -- and I wasn't taking it to be exactly similar, but when the panel looks back at Tab 4, page 39, of Board counsel's book of documents, Exhibit 58-4, and if we stick on that first page, at the far right-hand column, under, "2037," if I can have Ms. Villegas just shift it over? I appreciate that. And thank you, ma'am.

Let's just go down to the bottom. The

third number from the bottom under the 2037 line -- column is seventy (70), correct? Are you with me, Ms. Car -- Carriere?

MS. LIZ CARRIERE: Sorry, can you repeat that?

MR. BOB PETERS: Okay. I'll try to word it better. Let's go to the column that's headed, "2037," on page 39 of Board counsel's book of documents, and then let's go down to the debt-equity line, which is the third row from the bottom, and I see the number seven-zero (70).

MS. LIZ CARRIERE: That's correct.

MR. BOB PETERS: That's telling the panel that under this run, the debt-equity ratio in 2037 would be 70 percent?

MS. LIZ CARRIERE: That's correct.

MR. BOB PETERS: Which means the debt would be 70 percent. The equity would be 30 percent?

MS. LIZ CARRIERE: That's true.

MR. BOB PETERS: Five (5) -- five (5) full percentage points above the target?

MS. LIZ CARRIERE: That's right.

MR. BOB PETERS: Would that suggest that no rate increase would be required at that point in time, because the Corporation already has 70 percent debt, 30 percent equity?

(BRIEF PAUSE)

MS. LIZ CARRIERE: I don't think that's true. In order to maintain that, you would need to have some sort of rate increase through time.

MR. BOB PETERS: Well, if we go up to the fifth row from the bottom, we see one point three-zero (1.30), which is the additional general consumer's revenue percent increase number, correct?

MS. LIZ CARRIERE: That's true.

MR. BOB PETERS: And -- and my suggestion, Ms. Carriere, and I know Mr. Rainkie is still cogitating on this, but the -- this suggestion that once you get to 30 percent equity, you've exceeded your debt-equity target by some significance.

Why would there still be the need for any rate increase?

MS. LIZ CARRIERE: Well, I think what happens is, if you go to the -- the column in 2033, if we were -- if we were to re-run this, you would see adjustments to the rate increases, but -- so, for example, in -- in 2033, you have a -- a debt ratio of seventy-four (74). So perhaps that 23 percent reduction wouldn't be as -- as -- it would need -- it wouldn't be as high as that to get to the seventy-five (75).

But then in the following year, you would need -- you would need a -- likely a -- a -- an adjustment to that rate. So they're all linked together. So -- but what I -- when I said the trajectory is the same once you consider all the annual rate adjustments, in the end, you're not seeing a signi -- a significant change in the annual adjustments. You get to the same point over time.

MR. BOB PETERS: And I suppose that answer, the last part of that answer, Ms. Carriere, is telling the panel that there would be some subjectivity invoked at the management level of Manitoba Hydro to -- to smooth out that correction?

MR. DARREN RAINKIE: Yes, Mr. Peters, that's what the Chair and I were pondering half an hour ago, is -- is we likely wouldn't de -- decrease rates by 23 percent. We would probably see that coming a number of years ahead and smooth that out for customers, and I would also observe that the debt ratio is not the only ratio we're -- we're managing. It's the interest coverage as well as the capital coverage ratio. So we would -- we would have to juggle all three (3) as well as try to maintain reasonably smooth rates in terms of what actually would happen.

MR. BOB PETERS: Mr. Chairman, in light of the hour, I'm -- I'm going to suggest that the -- the panel consider taking a morning recess, at which time I'll review my notes, and if I am not finished my questions with this panel, I am very close to being, so this would give me an opportunity to make sure I've covered the points that I wanted to this morning.

THE CHAIRPERSON: Okay. I just wanted to ask people to turn to -- to page 41, and I just want to explore something very quickly. If you look at the time period that we're talking about, which is twenty (20) -- I'm looking, for example, at twenty (20) -- say for the sake of argument, 2033. I'm looking at the long-term debt, and this is something we were talking about earlier with Mr. Schulz, where we're seeing a -- seeing a dip in the long-term debt at that period of time.

So there's a couple of things going on here, in -- inasmuch as we're seeing an abatement of the rate increases, but we're also seeing a -- a whacking away at the long-term debt of the Corporation. So despite the fact that you're whack -- whacking away at that debt to bring it down to a lower level, you're still seeing relatively modest rate increases at that time.

So one (1) option that's available to you from a rate perspective is -- or from a -- from a strategic perspective is put less resources into reducing the long-term debt, and -- and that would -- would allow some further abatement of rate increases. I -- I mean, there's clearly something going on here in terms of the long-term debt. Why would you be wanting to reduce a long-term debt by over 2 billion in one (1) year?

MR. MANFRED SCHULZ: Perhaps I'll start. And again, I'll -- I'll look to have Mr. Rainkie add to this as well. First of all, from -- just from an accounting financial presentation perspective, caution around -- and as you know, being an -- an accountant, that when we look at long-term debt, the financial presentation of it, there is the current portion, which is in the line immediately below that. So the total amount of long-term debt.

And, as well, the sinking funds in the net debt amounts need to be considered. So I -- I wouldn't necessarily hold to the precision of the number, but the trajectory is true conceptually to the point that we do reach a point where we do have debt reduced, and the reason that that's important is because of just the ongoing leverage, and then sort of the -- the aspect of that.

So it -- it would be no dissimilar, perhaps, to the conversation that we might have as persons that we have a mortgage, and if we have a situation where we have the opportunity, perhaps through promotions or other things like that, the opportunity to reduce our mortgage, the question then becomes, What do we do? Do we reduce that mortgage and have less leverage on our -- our own personal balance sheets, or do we use that money for other purposes?

And -- and completely respect the perspective that you have, and we have, as well, about ratepayers and sensitivity towards that. Where's the trade off? Where's the -- the management judgment around, How much do I put towards debt repayment, and -- and down payment on that, knowing that there's always going to be -- if we don't do that, then there is the leverage that we'd have on our mortgage and so on, and how soon do we want to have the reduction of that as a risk mitigation issue?

And so that becomes a -- the important consideration of that, and that's why the interest coverage ratio is used for comparative purposes in --

in our calculations in the financial evaluation post-2032 at one point two (1.2), just in recognition of that, to make sure that we measure against that.

The function of that is, with fairly modest rate increases in the subsequent period of time, we can get debt reduction. As we move forward, and -- and Mr. Rainkie will certainly, I think, jump in on this, these are just calculations for comparative purposes. What will actually happen tactically as we move forward and see each other again through the years is another matter, but there is a strategic question about debt retirement, and -- and I think that's an important one.

And as a treasurer, and also as looking at this from the perspective of financial risk, you know, also quite frankly, as a personal homeowner, I -- I made the decision to -- to reduce my mortgage, and -- and I consider that a good thing for me, but everybody will have a different risk tolerance, so I think that's where that comes to, and that's -- the tactical decisions will be for, perhaps, another day on that.

Does that answer your question, sir?

THE CHAIRPERSON: Okay. I suggest we take fifteen (15) minutes, so back here at quarter to 11:00, please. Thank you.

--- Upon recessing at 10:31 a.m.
--- Upon resuming at 10:50 a.m.

THE CHAIRPERSON: I believe that we're ready to resume the proceedings. I note that we have a -- a document that's been distributed.

MS. MARLA BOYD: Not by me, sir.

THE CHAIRPERSON: Is that new? Have we acknowledged one twenty (120) already -- Exhibit 120?

MS. MARLA BOYD: It was one from this morning.

THE CHAIRPERSON: Okay.

MS. MARLA BOYD: Thank you.

THE CHAIRPERSON: Mr. -- Mr. Peters, please.

MR. BOB PETERS: Yes, sir, thank you.

CONTINUED BY MR. BOB PETERS:

MR. BOB PETERS: Just another brief area to cover probably with Mr. Schulz, and starting at Tab 22 of Board counsel Exhibit 58-4, perhaps even go to page 201, Ms. Villegas, if I could, please.

Mr. Schulz, you'll recognize this as -- as information taken from the -- a Moody's report related to Manitoba Hydro?

MR. MANFRED SCHULZ: Indeed. I even referenced this yesterday in the finance panel direct.

MR. BOB PETERS: You copied it from my book of documents into yours, didn't you?

MR. MANFRED SCHULZ: I'm not sure who was copying who. I wouldn't want to say on the record --

MR. BOB PETERS: All right. Well --

MR. MANFRED SCHULZ: -- that anyone was plagiarizing.

MR. BOB PETERS: -- we'll -- we'll deal with that separately, sir, but let's just talk -- Moody's identified the three (3) major risks in that paragraph that's on the screen as -- as low water levels, cost overruns, and construction delays that could exacerbate Manitoba Hydro's financial strength, correct?

MR. MANFRED SCHULZ: They listed those three (3). I don't know if it was intended to be the major ones or exclusively the only ones, but they did indicate those three (3). Yes, sir.

MR. BOB PETERS: Well, the three (3) they listed are pretty major ones, are they not?

MR. MANFRED SCHULZ: I would agree.

MR. BOB PETERS: And in that same quote

in the first sentence, it talks about:

"The financial metrics are predicted to fall below targets in the next three (3) fiscal years."

That's not accurate anymore, is it?

MR. MANFRED SCHULZ: They do fall in the first -- the next three (3) years. They fall for a -- a -- they reduce themselves in the subsequent years, as well, but this quote is just talking about the first three (3) years.

MR. BOB PETERS: All right, but the debt-equity target, it falls below the metric for the next twenty (20) some years, correct?

MR. MANFRED SCHULZ: I agree. I mean, it's an awkward sentence. We don't control how they write their sentences, and --

MR. BOB PETERS: All right. I -- I have your point. In -- in terms of those three (3) items that they've identified of low water levels, cost overruns, and construction delays, which of those are within the sole control of Manitoba Hydro to manage?

(BRIEF PAUSE)

MR. MANFRED SCHULZ: Well, water -- I

mean, there's an element of management that Manitoba Hydro can have in all of these. But, for instance, low water levels, I would suggest Mother Nature has a prevailing hand on that. But Manitoba Hydro has mechanisms in its drought management in the operations. I'm sure you would have heard Mr. Cormie speak to that.

We can talk about it from a retained earnings perspective and having the management of that to bolster our financial statements. We've talked about it from a cash perspective with things we could do.

So there's management that can be undertaken for not only the drought and the water levels, but also cost overruns and construction delays. As I wouldn't categorize it as solely one (1) way or the other. There is management involved to some degree in all of these matters.

MR. BOB PETERS: When Moody's considers Manitoba Hydro to continue as a self-supporting corporation, as it does in the last part of that quote, Mr. Schulz, one (1) of the reasons it continues to see that is because of the Corporation's ability to seek rate increases from its regulator, correct?

MR. MANFRED SCHULZ: All of the rating agencies, when looking at utilities -- and this is not just Moody's; it's DBRS, it's Standard and Poor's -- when they consider the regulatory regime and supportive it is to rate request that is a consideration that they would have. And some of them have specifically identified that as being a rating strength, for instance. And -- and I think that Moody's would certainly look at that.

And -- and all the rating agencies, quite frankly, they follow the proceedings reasonably well, in terms of understanding with some measure of sophistication, because they understand utilities in Canada and elsewhere are regulated, and -- and so that's something that's important to them. And I think that they generally have found that the regulatory regime in Manitoba has been supportive.

MR. BOB PETERS: When you say, "supportive", Mr. Schulz, what you mean is that when Manitoba Hydro had a last drought the Board was receptive to granting rate increases?

MR. MANFRED SCHULZ: That wouldn't be their only definition for or example to define that. And I think they -- they would say it would be supportive, because when we make rate applications in -- in our basis of need to meet our revenue requirement, that generally the -- the Public Utilities Board and

Intervenors, in all of our discussions, we reach a position where we get rate increases, and -- and they would see that to be supportive.

In addition, of course, in those situations where -- in that drought situation in '03/'04, I think that the regulators -- or the -- the credit rating agencies would consider that to be another example of being supportive of Manitoba Hydro.

MR. BOB PETERS: Maybe to bring the point a little closer visually, on page 140 of Board counsel's book of documents, back at Tab 15 of Exhibit 58-4, is -- is a document that Mr. Rainkie spoke to yesterday, albeit briefly. And if we can look to the part of the chart that's shown on the screen now.

Talking about the 'rate increases granted' line. This is the line item that you just referred to, Mr. Schulz, and that the last drought the Corporation may have come in requesting 3 percent, but it was awarded 5 percent, as well as some additional rate increases that were ultimately awarded to Manitoba Hydro?

MR. GREG BARNLUND: Mr. Peters, if I may. To be clear, in 2004 we made a rate application where we were requesting 3 percent for April of 2004 and an additional 2 1/2 percent of April 2005. What we were awarded was slightly different. We received a 5 percent increase on August 1, and approval for a further 2 1/4 percent for April of 2005 and an additional 2 1/4 percent for October of 2005.

However, we chose to forego the October 2005 rate increase, because we had improved export conditions and we were recovering rather quickly from the debt of that -- from the drought at that point in time.

MR. BOB PETERS: Although, you came back, subsequently, to get it, if I recall, Mr. Barnlund?

MR. GREG BARNLUND: At a later point, yes.

MR. BOB PETERS: And on the same chart, Mr. Schulz, your credit rating agencies would know -- halfway up the page in the far right-hand column, there's a number of $267 million, two sixty-seven six seventy-five (267,675,000). Do you see that, sir?

MR. MANFRED SCHULZ: I do see that.

MR. BOB PETERS: That's the cumulative effect of the rate increases the Board has granted since '04/'05?

(BRIEF PAUSE)

MR. MANFRED SCHULZ: That's my understanding, yes, sir.

(BRIEF PAUSE)

THE CHAIRPERSON: Just an observation, Mr. Rainkie, it just kind of disproves what you and I were talking about in terms of smooth rate increases. I mean, it looks like your -- the request we get from PUB -- got from Hydro it's kind of lumpy, and what you got from PUB as a rate increase is lumpy as well. But I'm not sure that's what we're talking about here so much as addressing the issue of twenty-one (21) years of rate increases of three point nine five (3.95); is really what we're talking about.

CONTINUED BY MR. BOB PETERS:

MR. BOB PETERS: Mr. Schulz -- unless Mr. Rainkie had a comment?

MR. DARREN RAINKIE: I don't want to leave it -- you open-handed, Mr. Chair, hanging or whatever.

I -- I think the -- just -- sorry, maybe a couple observations. I think the hearing -- or this proceeding is more about twenty-one (21) years of

3.95s. I think this proceeding is about something much grander, about the next fifty (50) to a hundred years, in fact; decisions that will -- that will be made that will effect the long-term of the -- the company, the customers, and the province.

So, in fact, I hope I can convince you to look past the -- the first twenty (20) years, because that's -- that's, I think, where the promise of the Development plan lies.

The other thing is I think we have came to the realization over year -- over the years, because there was a period -- and boy, Mr. -- Mr. Barnlund probably could help my memory here -- but there was a period of about seven (7) years where Manitoba Hydro did not seek a rate increase in -- in the '90s. And -- and there has been periods where results were good and so we pulled back a rate increase and then results went poor and we came back.

And I think what we've learned through all of that period is that having reasonable and regular rate increases is a better regime than kind of just pandering, if you like, to good results or bad results. And, you know, for instance, we had a relatively -- or we're having a rele -- relatively decent year in 2013/'14, and it's a -- it's a case in point in front of you right now in terms of our interim rate application.

The tendency would be to say, Well, why do you need anything, because you had a decent year? The fact of the matter is is that in our system we're -- we're projecting rate increases based on average water flows. We know we'll have good years, we know we'll have bad years. If we draw -- put a straight line through it I think that's the most responsible thing to do for customers.

If we have a decent year and suddenly we give that back then we're going to need to go back the 3.95s when we have a bad year to make up for that. And -- and so I think we came to the realization in the last few years that it's better to -- we always have been a rate smoother in our history, but from time to time it's been this gyration back and forth just because of the short-term financial results, I think. We think now it's better to look over the long -- the long run, so.

THE CHAIRPERSON: One (1) of the -- one (1) of the underlying issues though is that, you know, we are talking about benefits that will flow to future gener -- generations in some respects. And there is a lumpiness at the front end in terms of rate increases and costs, and so on. And so we're basically asking ratepayers -- today's ratepayers, to pay for something that will benefit -- largely benefit the future generations, if you look at it from a net present value perspective.

And so smoothing out the benefits that will flow to multiple generations is -- is obviously something we need to think about, because, you know, there -- there are people that are quite concerned about the nearby effect of -- of these plan -- of -- of the construction plans, and thinking about how -- how to spread out the benefits so that it's a win-win for all the generations, as opposed to a lose-win for the first generation as opposed to the next generation, so.

MR. DARREN RAINKIE: Yes, sir. And -- and I think we talked about this on day number 1. I think you have to have the broad intergenerational perspective on this, because at seven (7) cents a kilowatt hour right now the current customers are benefiting from past investments. So I don't think it's a -- a win-lose for anybody, because it's a win-win. The glass is not half empty in Manitoba; the glass is 95 percent full, as far as I'm concerned, when you look at neighbouring jurisdictions at thirteen (13) cents, twelve (12), thirteen (13) cents a kilowatt hour for power.

The other thing is, is that the rate increases in the near term, the next five (5) to seven (7) years, are not driven by the development plans, but they're driven by the need to replace our infrastructure. We are part of the public infrastructure deficit, just like water systems, any other -- roads.

And so the fact of the matter is that when we put expenditures in, like Bipole III, and -- or we refurbish a distribution system, or whatever the asset is, current customers are benefiting from that. That's not something that a future generation -- that's not a asset that a future generation is using. That's an asset that you and I are using when those assets go into service. So I don't think there's an in -- intergenerational issue there.

The other point that perhaps was covered better on -- on the other panels, or maybe is the panel coming up, is that in terms of the development plan there is certainly lots of good socioeconomic benefits to the province as a whole, in terms of the -- building the -- the electric generating station. So there will be lots -- lots of benefits to share for the current generation.

So I -- I don't think it's a -- if you -- if you think -- if you expand the rubber band in terms of looking at the intergenerational company that we have in terms of a continual reinvestment cycle, and you think about where we sit relative to other provinces, and you think about the benefits, not just, you know, in terms of the ratepayer account, the company account, but of the -- the broader provincial account, I think we -- we see that there's -- there is no win-lose here: there's a win-win. And the glass is not half empty, it's mostly full, as far as I'm concerned.

CONTINUED BY MR. BOB PETERS:

MR. BOB PETERS: So close to St. Patrick's Day with that glass 95 percent full, Mr. Rainkie. I'm not sure, but let's debate that some other time.

Back to you, Mr. Schulz. How frequently does Manitoba Hydro communicate with the credit rating -- credit rating agencies?

MR. MANFRED SCHULZ: It depends on when they want to do credit ratings on Manitoba, as well as on Manitoba Hydro. So typically the cycle would be once a year. We would do presentations for them that would trigger towards a report.

MR. BOB PETERS: Do they come here, or do you go there?

MR. MANFRED SCHULZ: I have never gone there, nor do I -- during my time have we ever gone to meet with them. It -- the process is varying between the different credit rating agencies. Standard & Poor's and Moody's, for instance, often send their individuals into Manitoba and we meet them face-to-face, usually along with the province. With DBRS, we may have meetings with them face-to-face; often they're done through telephone conversation.

MR. BOB PETERS: In terms of DBRS, filed at Tab 23, page 203, of Board counsel's Exhibit 58-4 is, I believe, Mr. Schulz, the most current rating report from DBRS?

MR. MANFRED SCHULZ: For the Manitoba Hydro Electric Board, yes.

MR. BOB PETERS: And there was just one (1) question of clarification. If we can scroll down another paragraph. There's one that says:

> "The Utility generated a free cash flow deficit of 448 million in fiscal 2013, which was funded with debt."

Do you see that line item, Mr. Schulz?

MR. MANFRED SCHULZ: I do.

MR. BOB PETERS: Does that suggest that there was no internally generated funds available in fiscal '13?

MR. MANFRED SCHULZ: No, the mechanics of that calculation is driven off the cash flow statement. And --

MR. BOB PETERS: What about the cash?

MR. MANFRED SCHULZ: The cash flow statement, what they're looking at is, they take the total amount of investing activities that is on our cash flow statement, and they reduce from that the amount of cash flow from operations to arrive at what they consider to be their free cash flow calculations.

MR. BOB PETERS: And there was no free cash flow by that metric in fiscal '13?

MR. MANFRED SCHULZ: Because our investing activities were greater than our cash flow from operations, therefore we needed to obtain debt financing, which, I think that they indicate there that it was funded with debt. So that's the amount of financing that your friendly neighbourhood treasurer has to go and get financing for.

MR. BOB PETERS: And that financing would have been used to pay interest on Manitoba

Hydro's debt obligations?

MR. MANFRED SCHULZ: That financing would have been used to fund the capital investments.

MR. BOB PETERS: And also to pay interest on the -- on the debt?

MR. MANFRED SCHULZ: The interest on the debt is part of our cash flow from operations calculations. So the -- the presumption here is that we have 'X' amount of capital financing. How do we get the funds for it?

We get a certain amount from cash flow from operations, you know, the amount coming in from customers, the amount that we pay out for bills, and so on, and then that determines how much cash flow we have from operations, and the difference that we would need to -- to meet our capital investing requirements, we would go to debt financing, and obtain that.

MR. BOB PETERS: All right. If we scroll further down page 203, please, we see that one of the rating considerations under "strength" was:

"The debt is a direct obligation of the province."

Correct?

MR. MANFRED SCHULZ: Correct.

MR. BOB PETERS: And, Mr. Schulz, you

haven't been able to quantify that for the panel as to what that means in terms of a reduced interest rate on -- in your borrowings?

MR. MANFRED SCHULZ: I'm not exactly sure what you mean by that.

MR. BOB PETERS: Well, in exchange for the debt being a direct obligation of the province of Manitoba, Manitoba Hydro pays a 1 percent debt guarantee fee, correct?

MR. MANFRED SCHULZ: Correct.

MR. BOB PETERS: And if Manitoba Hydro was to go out and try to get its own debt without the province guaranteeing it, are you able to tell the panel what -- how many points higher that would be in terms of the debt cost?

MR. MANFRED SCHULZ: I think we're building on the conversation that the Chairman and I had yesterday on that point, and -- and it's -- it's a hypothetical. It would based on saying, If there was no province of Manitoba and Manitoba Hydro were its own entity, what would be our terms for financing and what would be our access to liquidity?

It's a -- it's a hypothetical, and -- and I think the answer that I gave was that I think that the provincial debt guarantee fee was a -- was a fair and reasonable exchange for that.

How much more would it be and depending on the term? I mean, it's -- you know, it's hypothetical, so it -- it's -- I'll -- I'll leave it at that.

MR. BOB PETERS: Under the challenges on the right-hand side, we see high leverage as one (1), and that translates into the high debt, does it, Mr. Schulz? Is that what they're referring to?

MR. MANFRED SCHULZ: Finesse on that, Mr. Peters. It's not the absolute quantum of debt, it's the ratio, so that's the debt-equity ratio. So in the context of your overall business and your fixed assets, how much of it is being financed through debt is the -- sort of the general terminology for what leverage would be.

So the higher your -- your debt ratio, the more leverage you have.

(BRIEF PAUSE)

MR. BOB PETERS: Remind me, Mr. Schulz, in terms of investor-grade capital structure, what -- what the debt-equity levels would be in -- in such an entity?

MR. MANFRED SCHULZ: Can you repeat that question, please?

MR. BOB PETERS: What debt-equity level would a utility be required to -- to have to be considered investment grade?

MR. MANFRED SCHULZ: Again, that -- that will vary depending on the utility and their support that they would have, their cash flow stability, there would be a variety of different things into that that would go into the -- the calculation of what would be a investment grade.

So it's not just one (1) metric that the credit ratings would look at, but -- 60:40 kind of scenario would be somewhat that -- you would, would be investment grade if you were triple 'B', for instance.

MR. BOB PETERS: Would 75:25 be considered investment grade?

MR. MANFRED SCHULZ: As a privately owned entity without the guarantee and without a supportive regulatory regime that would provide cash flow stability and a whole host of other caveats, I would say that 75:25, we're benefiting from having the access to the province on that.

MR. BOB PETERS: All right. Let's

turn, please, to page 204, also under Tab 23 at Exhibit 58-4. It's just the next page. And if we go down to the challenges, we see at the bottom of the page there's three (3) challenges listed, Mr. Schulz. And we've talked a fair bit about hydrology risk; and this is just recognition by DBRS that Manitoba Hydro faces exposure because of its hydrology risk, correct?

MR. MANFRED SCHULZ: Correct.

MR. BOB PETERS: And when we get down to the high leverage, Manitoba Hydro's leverage remains one (1) of the highest among government-owned integrated utilities in Canada, limiting its financial flexibility going forward.

I read that correctly?

MR. MANFRED SCHULZ: You read that correctly. And that reinforces the point about why the equity ratio is important for us and -- and why -- and through the eyes of the credit rating agencies, the continued vigilance on the debt-equity ratio and our equity ratio and our financials is so important for them, because this is something that has a fair amount of visibility.

And coming to the point about the regulatory support, if we had a situation where we were not getting the regulatory support in order for us to continue with that, they would consider that to be a weakness for us. But thus far, the regulatory regime has been supportive of our requirements.

MR. BOB PETERS: But we know that the debt-equity ratio is going to suffer over the next -- it's going to be below target at least over the next twenty-two (22) years, according to forecast, Mr. Schulz, correct?

MR. MANFRED SCHULZ: Correct. And they're aware of that.

MR. BOB PETERS: And when they say Manitoba Hydro will have reduced financial flexibility, what does Manitoba Hydro understand that to mean?

MR. MANFRED SCHULZ: When you take on more leverage, you take on more debt. You have less ability to take on further debt, which means you -- you know, you reach limits in saturation. So it's -- nothing more specific to that than -- than that.

And so the -- the more leverage you have the -- it's just a natural consequence, the more debt that you have, the less flexibility you have.

MR. BOB PETERS: And so the additional increased costs of Keeyask and Conawapa that were announced March the 10th result in decreased financial flexibility for the Corporation?

MR. MANFRED SCHULZ: Not necessarily. I mean, there's a lot of other puts and takes to this. So, again, we're looking at this from a corporate perspective. It wouldn't move the needle, from their perspective.

And keeping in mind that the credit rating agencies, and DBRS in particular, when they're looking at this, have looked at all of our financial ratios. They've looked at all of the -- the forecasts. They're fairly close observers of the regulatory proceedings. So we actually find them to be, as the other credit ratings used to be, fairly informed in terms of the matters for not only Manitoba Hydro, but also as part of their utility analysts, all the other utilities, oil, BC Hydro -- you -- you know, they're analysts; they do this as a full time job, looking at the regulatory practices.

So this is a common occurrence for there to be increased capital expenditures. They're aware of it. They see the equity ratios. They see the -- you know, the investment periods. It's a natural consequence that they see the returns. And we -- they see there's been a planned outcome, and so they're not too alarmed or -- or startled by it all. In fact, they see this as generally something that seems to be positive in the general context of what the need is for moving forward.

MR. BOB PETERS: Mr. Schulz, to show the Board on page 213 of Board counsel's book of documents, Exhibit 58-4, there's a chart, a graph, if you will, sorry, that shows the rating history of Manitoba Hydro Electric Board. And it appears that Manitoba Hydro has been rated A (high) by DBRS since approximately 2003?

MR. MANFRED SCHULZ: It's a flow-through credit for the Province of Manitoba. So what you're seeing there, in effect, is the Province of Manitoba's credit rating has remained stable largely for that period of time.

MR. BOB PETERS: You're telling the panel that the province's credit rating is the same one that Manitoba Hydro has?

MR. MANFRED SCHULZ: Correct. We receive a flow-through credit rating.

MR. BOB PETERS: Can you tell the panel what precipitated the uptick from an A rating to an A(high) rating in approximately 2002 to 2003?

MR. MANFRED SCHULZ: I don't have that personally at hand, sir. It would be somewhere in the record in some historical DBRS report. I don't have that immediately at hand, sir.

MR. BOB PETERS: Mr. Rainkie, does -- was it any matter that was attributed to Manitoba Hydro, or was it attributed to the province that would cause that change in rating?

MR. DARREN RAINKIE: You know, Mr. Peters, I -- I don't recall, but just going back to a phrase that you used a second ago. You said, The province has the same rating as Manitoba Hydro. I think you need to turn that around. Manitoba Hydro gets the same rating as the province, because the province guarantees our debt. It flows through that. So Hydro does not have its own rating.

And, you know, I think probably, subject to check, while there's some concerns over the -- going to the next tab, in terms of the lateness of the government solving its deficit problems, I think, in general, the credit rating industries are looking at Manitoba as being a well-diversified province. I mean, in the -- in the economic downturn that happened I guess we're neither a bust nor boom province -- we're, I guess much like our company, something that fits down the middle of the fairway if we're talking about smoothing.

And I think it's -- it's probably just

that, the resilience of the province is -- is over time and -- improving debt management to practises, which we are a part of. We correlate our activities significantly with a -- with that of the province in terms of debt financing. So I think if you flip to the next tab you'll probably -- we'll probably get some clues on why that rating went up.

MR. BOB PETERS: All right. Well, let's -- let's take advantage of your segue, Mr. Rainkie, rather than go into your golf abilities, which I doubt you've seen the centre of the fairway.

But having said that, sir, let's -- let's go to page 215, Tab 24 of the book of documents.

This is DBRS's report for the Province of Manitoba, correct?

MR. MANFRED SCHULZ: Correct.

MR. BOB PETERS: And DBRS has identified -- and we can flip forward, I think to page 219 of the book of documents, where DBRS indicates that:

> "The province's debt is expected to continue to rise between 5 and 8 percent annually, resulting in a debt burden of approximately 40 percent of GDP by 2016."

And in DBRS's view has eroded -- that's:

"Eroded some of Manitoba Hydro's financial flexibility."

I'm looking just above the -- the chart at the bottom of the page. And it starts off, "Given the longer financial recovery plan." And, Mr. Rainkie, I think this is what you were referring to in your previous answer to the panel.

MR. MANFRED SCHULZ: Yeah, the reference was to the Province of Manitoba.

MR. BOB PETERS: And to the extent that it's the -- Manitoba Hydro has the flow-through rating, Mr. Schulz, should the panel not consider that also to be applicable to Manitoba Hydro?

(BRIEF PAUSE)

MR. MANFRED SCHULZ: Manitoba Hydro received a flow-through credit rating of the Province of Manitoba. If the Province of Manitoba's credit rating were to be affected it -- it would have a -- a flow-through impact to what the rating would be for us in terms of DBRS.

The capital markets, where I look to in terms of obtaining debt financing, may or may not move with respect to any kind of downgrades or motions made by DBRS. And -- and it also depends on which credit rating it would be impacting. You know, there's Standard & Poor's, and there's also Moody's that will be -- receive credit rating reports from.

So there's lots of moving parts to this. So I wouldn't want to have it sort of left some simplifying and assumption that if there's some impact to what DBRS says on the Province of Manitoba, that that has an -- an immediate impact to Manitoba Hydro.

MR. BOB PETERS: All right. I have your point, Mr. Schulz. If we could turn to page 223, we'll see a sheet with -- a busy sheet with numbers. But there's a section partway down the page that says, "Net Public Sector Debt." And this is as -- as at March 31.

That would be 2012, Mr. Schulz? Sorry, March 31 of 2013?

MR. MANFRED SCHULZ: I see the page, sir.

MR. BOB PETERS: All right. Have I lost you? Oh, I --

MR. MANFRED SCHULZ: I do see it.

MR. BOB PETERS: All right.

MR. MANFRED SCHULZ: I'm just not sure

what your question was.

MR. BOB PETERS: This -- I -- I just wanted to get a context in terms of the time -- the time that this data was -- was referring to.

This was prepared based on what vintage of information from Manitoba Hydro and the province?

MR. MANFRED SCHULZ: Well, if you're looking at the column "As at March 31, 2013," it would have been exactly that. It would have been the information as per the financial statements at March 31, 2013. The 2014 figures had a 'B' there, which I understand to be budget or potentially forecast. Yes, there's a reference at the bottom of the page for that, for the asterisk, to indicate 'B' as budget. So at the point of the production of this report the 2013 figures were actuals.

MR. BOB PETERS: And if we look under that 2014 budget column, under the 'net public sector debt', Mr. Schulz, and go down to Manitoba Hydro, we see $11 billion of -- of Manitoba Hydro debt, correct?

MR. MANFRED SCHULZ: That's what's shown there, yes.

MR. BOB PETERS: And -- and that's 11 billion of Manitoba Hydro's debt out of a provincial debt of $31 billion?

MR. MANFRED SCHULZ: Correct.

MR. BOB PETERS: And by simple math, does that suggest to the panel that the provincial debt is about $20 billion and Hydro's debt is the other 11 billion?

MR. MANFRED SCHULZ: Yes. What the equation on that, is you just do the math on it, approximately one-third (1/3) of the province's debt is Manitoba Hydro's.

MR. BOB PETERS: And Manitoba Hydro's plans that we saw from Ms. Carriere's slides and some of the information that we looked at in this book of documents, Manitoba Hydro is planning on increasing its debt to over 27 billion, maybe closer to $30 billion, correct?

MR. MANFRED SCHULZ: Correct.

MR. BOB PETERS: And assuming the province balances its budget in the next couple of years, Hydro would then represent a much more significant portion of the debt, rather than just the one-third (1/3) that it currently does?

MR. MANFRED SCHULZ: Not necessarily.

MR. BOB PETERS: Not necessarily because you don't know what the province will be spending?

MR. MANFRED SCHULZ: It's not so much what they'd be spending; I don't know what their future debt levels will be.

MR. BOB PETERS: If Manitoba Hydro's debt were not to be considered self-supporting, is there a potential for requiring the province to provide some support to Manitoba Hydro?

MR. MANFRED SCHULZ: Manitoba Hydro's debt will remain self-supporting.

MR. BOB PETERS: And I was -- let's take the hypothetical. Self-supporting, in that Manitoba Hydro will continue to be able to pay it on its own is what you're suggesting?

MR. MANFRED SCHULZ: Correct.

MR. BOB PETERS: If it was no longer self-supporting for any reason, Mr. Schulz, what does that mean for the province?

MR. MANFRED SCHULZ: That's a hypothetical that I don't think is real.

MR. BOB PETERS: I appreciate hypotheticals aren't real, but if that were to come to pass, what type of support would the province be obligated to provide to Manitoba Hydro?

MR. MANFRED SCHULZ: Being self-supporting means that Manitoba Hydro has the capability of meeting all of its financial obligations to its bond holders, is the definition.

So we will remain self-supporting now and through the future. That is something that we will be taking care of. Those notions that hypothetically what would happen if Manitoba Hydro were not to be self-supporting, I think, is -- is a -- those are ghosts and mirages, and -- and I -- I don't think that that's really in play.

To the extent that there would be any kind of shortfall, and you would see that in a drought situation where cash flow goes down, we would undertake the measures, and we talked about this yesterday as part of the finance direct panel presentation, we would undertake cash conservation. We would do bridge financing at Manitoba Hydro, and we would do the -- potentially get rate increases in order to sort of generate the cash flow.

The combination of those measures would provide us with enough cash flow to meet all of our bondholder payments. We really don't see a situation where that would not occur.

MR. BOB PETERS: And I appreciate your answer, and you don't see it occurring, Mr. Schulz, and my question was admittedly hypothetical. In the event it did occur, what does the provincial debt guarantee mean in terms of what the province would be obligated to do for Manitoba Hydro under those hypothetical situations --

MR. MANFRED SCHULZ: Well, the bondholders would --

MR. BOB PETERS: -- where Manitoba Hydro would no longer self-support --

MR. MANFRED SCHULZ: -- be paid, Mr. -- Mr. Peters. I mean, that's a requirement, and we have a financial obligation to meet the bondholder payments, so Manitoba Hydro will meet those. To your hypothetical would be presumably Mani -- the province of Manitoba having to pay the bondholders, but clearly, Manitoba Hydro will be able to make those payments, and so that's a hypothetical. I think it's just that, and a -- a fairly capital 'H' hypothetical, I would add.

MR. BOB PETERS: Just maybe a last point. In PUB Exhibit 58-3, it was a previous book of documents, I think on page 242 -- maybe it was two forty (240) -- just...

(BRIEF PAUSE)

MR. BOB PETERS: Thank you very much,

Ms. Villegas, that's excellent. Again, on this page, Mr. Rainkie and Mr. Schulz, I want to pick up that comment from Mr. Schulz about -- about drought.

Would it be correct for the panel to understand this information that's now on the screen, which is page 242 from Board counsel's book of documents 58-3, as showing the impact -- the financial impact of a five (5) year drought being about $2 billion in terms of reduced net income, Mr. Schulz?

(BRIEF PAUSE)

MR. MANFRED SCHULZ: Yes.

(BRIEF PAUSE)

MR. MANFRED SCHULZ: Which reinforces the point of why we need to have rate increases to make sure that we have a strong financial position. It's not just for the accounting aspects of retained earnings. It's also to provide the cash flow required to meet all of our obligations.

MR. BOB PETERS: And this net income reduction of about $2 billion, Mr. Schulz, does not include financing costs, does it?

MS. LIZ CARRIERE: If you look at the third line, that does include financing charges.

MR. BOB PETERS: Thank you, Ms. Carriere.

(BRIEF PAUSE)

MR. BOB PETERS: And Mr. Schulz, if the -- if this represents a five (5) year drought, and we can discuss when the drought starts and stops, but as a result of this kind of an impact of $2 billion of reduced net income that, too, would then further reduce the debt-equity ratio, would it not? It has to.

MR. MANFRED SCHULZ: Yes.

MR. BOB PETERS: And the interest coverage ratio would also be negatively affected?

MR. MANFRED SCHULZ: Correct.

MR. BOB PETERS: And likewise, the capital coverage ratio?

MR. MANFRED SCHULZ: Presumably, as well.

MR. BOB PETERS: And if -- if you -- and your interest coverage ratio was -- fell below your target as -- as it would in a situation like this, that would mean Manitoba Hydro would then have to borrow to pay that interest to the bondholders that you mentioned previous -- previously?

MR. MANFRED SCHULZ: In situations where we need for business continuity to obtain debt financing, we would, be that for bondholder payments, or for paying payroll, or paying for capital expenditures on -- on a consolidated basis, to the extent that we need cash, we would obtain that finance.

MR. BOB PETERS: Would it be correct, then, that, as the bond rating agencies are suggesting, that there's limited financial flexibility under some of the -- the heavy debt scenario, that at that point in time, until Manitoba Hydro is through its building phase, the risk of drought remains a very severe risk?

MR. MANFRED SCHULZ: I think the risk of drought is always a risk that we're vigilant towards, and -- and so it remains a risk now and -- and moving forward with our hydrology system.

So moving forward, that's something that we have as part of our fabric of -- of how we consider risk, and we will continue to do that, and -- and we'll continue to take steps to mitigate that as required.

MR. BOB PETERS: Mr. Chairman, I'd like to thank Mr. Rainkie, Ms. Carriere, Mr. Schulz, and I'd even like to thank Mr. Barnlund, even though he and I didn't get to chat much on the record, although we appreciate his comments this morning. Those are my questions of the panel, and I thank you for your time.

THE CHAIRPERSON: I have some follow-up questions, if you don't mind, please, and it's in relation to what we've been talking about. Do -- I -- I guess one (1) of the questions I have is do the -- the ratio calculations performed by the rating agencies line up with the ones that Manitoba Hydro uses and the ones that we consider at the -- during PUB hearings?

MR. MANFRED SCHULZ: So to answer that -- it's a multivalent response to that question, so, for instance, on the debt-equity ratio, we find that it tends to be fairly similar. There may have different puts and takes, for instance, on how they may consider the inclusion of AOCI and some things like that, but the general trajectory of what we show and they show is very similar.

On capital coverage ratio, that's something that's important for us internally. That's something that -- you don't see that as a ratio that the credit rating agents look at.

For interest coverage ratio, you will see not only a DBRS, but Standard & Poor's, and -- and Moody's, they tend to have different variations of that ratio. DBRS, for instance, it has a ratio that -- they have, I think, three (3) or four (4) coverage ratios. They have an EBIT rat -- EBIT interest coverage. They have EBITDA. They have cash flow ratios.

When we look at, What does our ratio in our interest coverage chart look like compared to what they may be showing? They tend to show the same trajectory. So, for instance, if we're showing a low point in the 2020 year, for instance, on the interest coverage ratio, their calculations would show something similar.

To the notion of how does our interest coverage ratio line up to any one (1) of their metrics, it tends to be more analogous to what they would call their EBIT interest coverage ratios, earnings before interest taxes divided by the gross interest or interest paid on -- to the bondholders. That would be similar to our interest coverage ratio.

If they're looking at, How much coverage do we have against -- and this is a little bit to the question that -- in the conversation that was had between myself and Mr. Peters yesterday, is, How low can you go in our interest coverage ratio to meet the requirements for bondholders? You tend to look more at the EBITDA.

So from an accounting perspective, you take the earnings before interest and taxation, and you add back the depreciation and amortization to see how much cash is available derived out of our net income statement from an accounting perspective, and then derive that against the -- the interest paid.

So that's a different measure, looking at the more strict test towards bondholders, and even there, when we look at that, we have sufficient room and headroom within all of our plans to meet the requirements for bondholder payments within our plan, so.

They tend to be very similar in their trajectories. They just have slightly different definitions, sir.

THE CHAIRPERSON: Part of why -- why I'm asking, the reason is because if -- if we -- you know, I believe we need to pay attention to what bond rating agencies are saying about Manitoba Hydro from -- from the -- from the public's perspective. I think we have to be sensitive to that, because underlying the trajectory for Manitoba Hydro is significant borrowing.

So I -- I guess the question I'm asking is that to the extent that they don't line up, is there value in having that included in -- in rate applications going forward to -- so that we pay attention to it? You know, so -- I'm thinking very specifically of free cash flow, for example. If that's important to rating -- to bond rating agencies, perhaps that needs to be part of the app -- packages that come to -- to PUB during rate applications.

I don't know. What -- what do you think?

MR. MANFRED SCHULZ: What I can say, first of all, Mr. Chairman, is that when we do make our presentations to the credit rating agencies, and you will have seen examples of the presentations that we provide them. I think it's in response to PUB/MH First Round 85a and 'c'. So you'll examples of that, and so what we provide to them is, basically, our IFF figures, and that which you've seen even in our -- on our direct evidence in terms of debt-equity ratio, interest coverage, capital coverage ratio. And they consider that, and they take that, and they'll crunch it through their own algorithms.

What we do find is, from a going concern perspective, that they're fairly analogous. So is there a -- a need driven by the credit rating agencies to re-calibrate and -- and reconsider all of our metrics to line up with that? I would say yes and no.

I don't think there's a -- a specific need for it, but if you're coming to the point of -- and -- and I hear the expression of it here. I mean, How low can you go on interest coverage ratio?

I mean, the -- the point here is we have head room on our interest coverage ratio, and there's this view that if we go below one (1) on our interest coverage ratio, suddenly we have to go and borrow the monies to make interest payments to our bondholders. We do not, because it's just the mechanics of the way the accounting works on that, and -- and you would certainly understand that.

Is there a benefit to consider having ratios like that, moving forward? Well, we hear your message, and -- and we'll see what -- where that goes for future filings.

MR. DARREN RAINKIE: Mr. -- Mr. Chair, I -- maybe I'm interpreting your question a little differently than Mr. Schulz. I think you were saying, Is there a need to have this information at future rate applications? And the -- the short answer is, yes.

I've had the pleasure over my career of, for a number of years, being an advisor to the Public Utilities Board, for a number of years working for a private gas utility, and for more years working for

Manitoba Hydro, and discussions about credit rating agencies, and Information Requests, and -- and material presentations, and the resulting reports have always been part of the discussion and always will be part of the discussion.

THE CHAIRPERSON: Now, do we know who buys the paper? Like, do you know who is holding Manitoba Hydro paper in -- in the -- in the financial markets?

MR. MANFRED SCHULZ: Are you asking who -- do we know who our investors are, who the bondholders are? The bonds tend to be fairly -- they're traded, so they can be moved in the open market. In some cases, we do know who -- the -- the Province of Manitoba executes our long-term debt. So to give you the example, for instance, of that fifty (50) year piece -- piece of debt that we just undertook a -- a few weeks ago, that was driven by a number of investors.

So we do know, through the Province of Manitoba, who that investor or series of investors would have been. They tend to be life insurance companies, pension funds, that kind of thing. Central banks, other Canadian investors on the long end of the curve. We do know, but then typically what can happen is they can trade them in the financial market. So if you were to ask me, the thirty (30) year bond that was undertaken in 2010, who the existing owners are or the bondholders, the answer is, I -- I wouldn't be able to tell you, because it's traded.

THE CHAIRPERSON: Do you know, for example, what percentage of that outstanding obligation is held for an extensive length of time versus the percentage that is traded very dynamically?

(BRIEF PAUSE)

MR. MANFRED SCHULZ: It depends on the bondholder's interests in -- in this, and some of them will hold it until maturity. Others will trade it. There's a varying level of responses to that from the investors, and that's why we have the syndicate in the brokers.

So they bring together their series of investors, and when do they the direct -- debt origination -- we have a need, they have the -- the investors lined up, and we work through the province and the brokers to obtain, you know, our requirements, and then they line it up against the investors, and it's a fairly complicated undertaking.

As soon as the debt is issued, then the investors can trade it, and typically though, we would often see them keeping it as -- the long bonds tend to be held, but they can be traded.

THE CHAIRPERSON: Now, have you ever had conversations with somebody holding Hydro paper? Somebody who's bought the -- who got the bond and -- and they are not satisfied with dealing through DBRS? They want to talk directly to Manitoba Hydro? Have you ever had conversations with holders like that?

MR. MANFRED SCHULZ: Well, the bond rating agencies are not participants in the actual debt origination, so the process is we would go to the province and say, you know, We're interested in this piece of financing and this term and this commit -- and so on, and then they talk to the syndicate members and they go and get it, so the credit rating agency participants DBRS, Standard & Poor's, aren't part of the actual debt origination that would occur.

THE CHAIRPERSON: No, I appreciate that, but what I'm saying is that somebody out there has bought Manitoba Hydro bond -- has bought a bond, and they -- say -- say for the sake of argument, they're holding a billion dollars worth of Manitoba Hydro bond, which is unlikely, but they -- you know, simply the sake of argument.

And, so they would probably be doing their own due diligence on -- on that -- on that obligation, I would think. Do you -- do -- do they ever talk to you, talk to Manitoba Hydro?

MR. MANFRED SCHULZ: What we're increasingly finding, having -- when we speak to our members of the syndicate, and -- and we do talk to the brokers that we have on this, and what we're finding in the conversation is that that the -- the analysts, on behalf of the investors, tend to become -- they are becoming particularly post-economic downturn much more vigilant in terms of doing their financial analysis.

They will look at the credit ratings, but they'll increasingly start to do their own work, and they'll do their own analysis when they start making decisions about whether or not they want to buy province of Manitoba paper, or Ontario paper, or so on and so forth, or high quality corporate bonds and so on.

Have we spoken to them specifically? I personally have in -- in my capacity as the corporate treasurer, have had the opportunity to meet with some of the investors, and the province, when they go out and -- and meet with the investors as well, they do that as well as part of what they -- they do as part of their relationship.

So -- and what they're finding is that one (1) of the strengths that they really like about the province of Manitoba, and what they like about Manitoba Hydro particularly, is the fact that we're building solid assets, and that's something that's seen to be very positive in their eyes.

They know that there's going to be cash flow stability. They know there's going to be something coming back. It's not for funding deficits or anything. It's -- you're building an asset, and that's seen to be positive in their eyes. And what we're hearing from our conversations with our brokers and from the members of the syndicate is that's increasingly being a positive attribute towards Manitoba Hydro.

In spite of the fact that we're taking on more leverage and more debt, they see that as a positive. That they see this as -- yeah, once the investment is made, there's a return, and that there's a -- that -- from that return and that stream of cash, that they can have confidence that there's going to be a return to, you know, making the -- the interest payments as they come due, as well as the -- the principle as it comes due.

So we're seeing increasingly that utility space and the government space is increasingly being very popular, and seen to be a very -- very confident way for these investors to move forward. And that's why, from a liquidity perspective, we tend not to have any challenges in terms of being able to access the market, because there's a lot of investors out there who want to buy the province of Manitoba and Manitoba Hydro.

THE CHAIRPERSON: Now, the metrics that they would be -- I -- I realize that you're probably -- you're probably getting this second-hand, but the metrics they would be using line up with the metrics that we are using at PUB, or are they using a different set of metrics?

MR. MANFRED SCHULZ: Well, I can't speak specifically to what the metrics would be, but, you know, the general characteristics would be the same. They would be looking at leverage. They'd be looking at the debt-equity ratios. They'd be looking at interest coverage ratios. They'd be looking at the stability of cash flows. That's important to them. They'd be looking at who's underpinning us. In this case, the Province of Manitoba, and where is Manitoba?

Manitoba -- the Province of Manitoba has one of the strongest credit ratings in -- in the country. I think it's ranked number 4 in Manito -- in -- in Canada right now.

From an S & P and Moody's perspective, the Province of Manitoba has a higher credit rating than Ontario, for instance. So they see these things as positive in terms of what their actual mechanics are, in terms of how they do their analysis for their investment portfolios. I would -- I would put to you that it's fairly extensive. Would it be exactly what we have? I -- you know, I -- I can't speak to that, because I don't know what they're looking at.

MR. DARREN RAINKIE: Mr. Chairman, just an additional observation to your second-to-last question is when we chat with the investment brokers, or bankers, whatever the right term is --

MR. MANFRED SCHULZ: Both.

MR. DARREN RAINKIE: Both. We -- we increasingly talk about having investor road shows and actually taking some investors or -- and -- up to our northern generating stations and showing them the -- the fleet that we currently have, or showing them the construction process, because as Mr. Schulz indicates, what we're doing is we're building revenue generating assets, and I think that is the most comforting thing from a -- from an investor perspective is, Where is my money going? Is there a steady cash flow stream coming from that?

And the other thing that the investment bankers tell us when we talk and have discussions is that actually, Manitoba as -- because we manage this as a portfolio between us and the province, the debt's all in the name of the province, and we take a piece of it, is that -- is that having larger debt sizes is actually beneficial, because -- because the people that are investing are spending so much time and energy doing due diligence, they don't want $100 million debt issued necessarily. It doesn't mean they won't still take them if it meets their -- their needs and their balance sheet to match assets and liabilities.

But what we hear is that actually, it's positive that we're -- we're putting money into physical assets, we're not funding deficits, and -- and that it's actually beneficial to have a larger lot size, if you like, in terms of debt offerings, because there's a larger pool of investors that are interested.

MR. MANFRED SCHULZ: And that's an excellent point, both on the -- what's called the investor road shows, we are receiving information from our members of the syndicate, saying that it would be a wonderful idea for Manitoba Hydro to start to show our investors, or, you know, some variations of the groupings of them, fly them up north. Have them take a look at what we're doing. Have them take a look at our transmission assets. This is something that seems to be very positive.

Hydro-Quebec, for instance, we're aware that they have done that, and it's been very popular for them. It increases -- it's not only a marketing activity. It increases the investor base, and the more investors you have in there, the ben -- the more beneficial it is for liquidity, to the point about the size of the debt and the issues that speaks to liquidity of -- of a debt issue.

So, for instance, we have a -- a forty (40) year tranche out there that's maturing in 2052. Now that we have a -- that's up to a certain site, we've sort of layered in incrementally more and more pieces into this, in -- in smaller lot sizes, but aggregating up to a -- a larger amount. Once it aggregates to a certain large amount, the investors really like it. Why do they like it? Because there's liquidity in that year, so that if they wanted to sell it and trade it, there's likely going to be other investors that would be wanting to buy it as opposed to a small little strands that you have less liquidity for. It reduces their risk.

And with the reduction in the risk, they see that as being credit positive to what we're looking to do. So just sort of highlighting some of the complexities that we have here, but from the financings that we are looking to move forward with, there is -- I mean, we had the largest downturn in the economics of our generation in 2008. We saw virtually no interruption to what we were able to do as an external shock.

We are undertaking large pieces of financing now. We have no reason to believe that there's going to be any interruption to the liquidity, and in fact, what we're hearing from many of the investors is that, Yeah, of course your ratio goes down through this, because you're taking on more debt as part of the investments, but what are you getting out of it, as Mr. Rainkie said, is a revenue generating asset, which is very positive for them, because they have stability cash flow. All of that reduces the risk and increases our ability to access markets, so.

The long and short of this is is, you know, further to the point that, you know, the hypothetical, I mean, this notion that somehow we're not self-supporting, it -- it's a complete capital 'H' hypothetical in our minds.

THE CHAIRPERSON: But coming back to one (1) of the questions I asked was that, to -- to your knowledge, there isn't another metric that's being used by those investors that we're not currently considering as part of our regular business, or even today?

MR. MANFRED SCHULZ: You know, as -- as I'm sitting here, I'm -- I'm wondering about, for instance, the EBITDA measure to allay any concerns that you or other people may have about, somehow we reach a point where we don't have -- you know, where do we reach the point where we actually have to make borrowings, obtain borrowings for bondholders, I mean, as a very strict test?

I mean, perhaps that's something that we should consider moving forward. We'll take that as advisement. But beyond that, the general array of the information you're receiving from us, I think, is consistent what -- what other regulators would be receiving in -- in our world, but we'll take it under advisement with respect to some of those other measures.

THE CHAIRPERSON: No, this --

MR. DARREN RAINKIE: Sorry, Mr. Chairman, for the tag team duo here, but if you'll recall in Order 43/13, one (1) of the directives was to, you know, review -- review our reserves, the adequacy of our reserves, we -- what we would report on that before the next GRA.

And if I can get some of these fine people back to the shop after this proceeding, we can -- we can work on that, and hopefully deliver that before the next GRA.

But I -- I think as part of that, I -- I've interpreted that directive a little bit more globally, to -- to -- we've had our financial targets in place for a -- a large number of years, and I think they're still robust, and when we compare to other utilities, they still seem to be, you know, relatively a -- a decent way to go.

But I think one (1) of the things through that is I'd like to, you know, review our -- our three (3) financial targets and see what comes out of that review.

THE CHAIRPERSON: Now, Hydro-Quebec, BC Hydro, don't have a government guarantee that accompanies their bonds, is there, or am I wrong?

MR. MANFRED SCHULZ: BC Hydro is a flowthrough credit to the province of British Columbia. They have a different payments-to-government mechanism than we would have. It's my understanding that they don't have an explicit debt guarantee fee, but they have dividend structures and those kind of things.

Hydro-Quebec? Just one (1) moment.

(BRIEF PAUSE)

MR. MANFRED SCHULZ: So Hydro-Quebec has a fee that they provide. It's -- I think it's at point five (.5), but they also have div -- other dividends, and so -- or different payments to government. So you have to look at this as the full range of -- of payments to government.

So SaskPower has a debt guarantee fee of zero. I mean, it -- it does have a -- a varying landscape across the country if you look just narrowly at the debt guarantee fee, but you have to look at it more broadly in terms of the total array of payments that are made to governments for the utilities.

THE CHAIRPERSON: So if you were to look at a utility that -- a government utility that doesn't have a guarantee fee versus Manitoba Hydro who does, I know there are a lot of variables, but for -- to borrow money, is Manitoba Hydro paying less than a -- than an equivalent utility that doesn't have a government guarantee?

And I guess what I'm trying to get is trying to isolate the difference between Manitoba Hydro without the government guarantee versus Manitoba Hydro with a government guarantee.

MR. MANFRED SCHULZ: So for instance, BC Hydro is a Crown corporation of the province of British Columbia. They do not pay a provincial debt guarantee fee, however, they have other payments to government. They receive their financing as a flowthrough from the province of British Columbia, which has an excellent credit rating.

So from BC Hydro's perspective, is that Crown corporation the -- the payments-to-government is sort of -- I think we have to sort of look at that from a total payments-to-government perspective.

If you're looking, though, however, at privately held entities and without a provincial guarantee, again, this is circling back to our conversation. It depends what the balance sheet would be for company XYZ. You know, and -- and often, as well, and this is something that is coming up and --

and you're hearing this increasingly from rate agencies like Moody's, is that there's an implied credit rating.

So even, for instance, the province of Manitoba, Moody's has an implied credit flow-through from the government of Canada, right? Because the -- there's -- the government of Canada is never going to allow a province to go -- it's too big to fail, right? It -- it's from that kind of nomenclature.

So you would see often that the utility space that these large utilities, even if they're not guaranteed by the province, tend to be rated better, and there's increasingly a fair amount of work that's being done by, I think, by the rating agencies on that, because it's a public sector good, and it's a requirements and essential service, and there's no government that's going to allow them ever to go into default. So there's an implied credit rating ev -- or support, even if it may not be explicit.

And so it gets complicated, sir, in terms of understanding the -- the mechanics of it, and to try and define it narrowly, say, you know, The credit rating would be a hundred basis points, or a hundred and fifty (150), if you're not getting a clear answer from me, it's because I -- I can't give you one.

MR. DARREN RAINKIE: Mr. Chairman, the

other -- the other part -- this is a twin conversation. The other part is not just the rate, but it's the access to financing. I can tell you from the Centra Gas years that we had covenants in our debt to our current bond holders. We could not issue debt unless we had a two (2) times interest coverage. It was either in the preceding twelve (12) or twenty-four (24) months.

And then the amount of debt that we could issue was constrained by how much our interest coverage was over, too. There were actually years where we did not have enough interest coverage. We had to wait until we could borrow money. We also had a covenant that we had to maintain a 25 percent equity ratio at all times, or we couldn't borrow.

So, you know, just tagging on to the conversation with Mr. Schulz. If you were to reference to a private company, you can't just look at the rate. You have to look at the covenants that come with the -- with the debt as well, because there's restrictions.

People don't lend you money and then say, Well, we'll see you -- you know, we'll see you in ten (10) years when you repay the bond. They -- they need the comfort that you're going to maintain a -- a decent financial structure and not issue more debt if -

- if your interest coverage isn't good. So please keep that in perspective.

MR. MANFRED SCHULZ: And just one (1) final point to that, because I know Mr. Rainkie and I like to sort of work together in tandem on this. That fif -- fifty (50) year piece of debt that we just recently issued, so it's not just the interest rate. It's not just the liquidity. It's also the term. So the reason that these ultra-longs, anything longer than thirty (30) years is what we consider to be ultra-long.

And we can actually obtain that financing for a rate that's cheaper than thirty (30) years, because there's an inversion of the yield curve for us, and the reason we can do that is because we are a utility, and it has the -- the cash flow stability, and it's guaranteed by the province. So it's the terming.

And so in this particular case, that fifty (50) year piece of debt, I have no more refinancings on that between now and 2063, which increases the stability of our portfolio, and it -- and it essentially eliminates the refinancing risk. So very positive, and that comes about as part of the consequence of what Mr. Rainkie just alluded to, too.

So all in, all of these matters are --

are net very positive to Manitoba Hydro. The -- the investors see it as being very positive, and they also see, quite frankly, the investment in assets as being very positive, and -- and we look forward to moving forward with these investments so that we can obtain the -- the returns as they come.

And we may plan for them. There may be gyrations along the way, but this is something why, from a marketing perspective, we don't really have to work too hard for the investors, because they're coming to us. That ultra-long, that was something that came as a reverse inquiry where the investor wanted us, and contacted the province and -- and that was something that worked for us, so.

THE CHAIRPERSON: The panel has no further questions, so I -- I suggest we adjourn for -- recess for lunch, and back here at quarter to 1:00. Is that acceptable? Okay. A quarter to 1:00. Thank you.

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

--- Upon resuming at 12:50 p.m.

THE CHAIRPERSON: Good afternoon. I hope everybody had a good lunch. I -- I'm assuming that there are no documents to acknowledge, or are there some documents to acknowledge?

MR. BYRON WILLIAMS: If Ms. Menzies will give me permission, the -- I think we'll have two (2) exhibits to assist in the discussion today. One (1) will be a thicker book of documents, Exhibit CAC-45-5. I think it should have thirteen (13) tabs.

--- EXHIBIT NO. CAC-45-5: CAC book of documents with thirteen (13) tabs

MR. BYRON WILLIAMS: And then the smaller document with seven (7) tabs we would suggest be marked as CAC Exhibit 45-6.

--- EXHIBIT NO. CAC-45-6: CAC document with seven (7) tabs

MR. BYRON WILLIAMS: And I understand Our Friends from Manitoba Hydro, they may have some comments about the -- the numbers but that they're -- they're not objecting to them going in?

Is that correct, Ms. Boyd?

MS. MARLA BOYD: Yes. Thank you.

CROSS-EXAMINATION BY MR. BYRON WILLIAMS:

MR. BYRON WILLIAMS: Mr. Rainkie, I'll -- I'll start with you, and I rarely invite you to -- to make speeches, sir, but I believe that My Learned Friend Mr. Peters took a bit of a shot at your golf game in the morning, and I don't know if you want a chance at rebuttal of Mr. Peters, or not.

MR. DARREN RAINKIE: No, I'm not really even a golfer, so I don't think I'll take you up on that.

MR. BYRON WILLIAMS: So you'll agree, sir, that your analogy was inherent -- inherently untrustworthy?

MR. DARREN RAINKIE: No, I always look at the data and make sure I got the right perspective on it, Mr. Williams.

MR. BYRON WILLIAMS: Thank you, Mr. Rainkie. I'm surprised you could resist that opportunity.

But I wonder if we could turn to page 39 of CAC Exhibit 45-5, and that's -- for those who follow tabs, that's Tab 10. And if we could scroll down the page. That's good there. Thank you.

Mr. Rainkie, you'll see before you, and I take it you'll agree that this is an excerpt from the evidence of Morrison Park, that being page 16 of their

-- their ex -- their evidence?

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

MR. BYRON WILLIAMS: And, Mr. Rainkie, I want to direct your attention to lines 21 through 23. And you'll agree with me that Morrison Park is stating there:

> "There was a signfi -- significant danger in assuming that a view of the future from the perspective of today will be very accurate. All such assumptions should be approached with humility and treated with respect as -- as the best available basis for decision making, but without claiming them to be more than what they are."

Did I present that fairly, Mr. -- Mr. Rainkie?

MR. DARREN RAINKIE: Yes, you read that accurately, Mr. Williams.

MR. BYRON WILLIAMS: And so I, just for a second, I want to chat with you about humility. And it's not a topic that -- that is that familiar to me, I have to admit.

But I take it you would agree that the

sentiment expressed by Morrison Park, that we should be approaching our forecasts of the future with humility, that's a -- that's a sentiment that you could agree with, sir?

MR. DARREN RAINKIE: Yes. I mean, we all talk about the reliability of forecasts and we realize that what they are is really directional in terms of indication. And that it's -- it's -- you don't have a perfect lens on the future when you're doing projections.

MR. BYRON WILLIAMS: So, like me, you'll be humbled to a certain degree as you look to forec -- forecast the future, sir?

MR. DARREN RAINKIE: I'm always humble, Mr. Williams.

MR. BYRON WILLIAMS: And of course, when we look to the future, while we may be directional guidance, there's always a chance we may be wrong, either the good way or the bad way, agreed?

MR. DARREN RAINKIE: Yes, I think that's what our uncertainty in the analysis in the filing was designed to do, was to stress test assumptions, for lack of a more detailed technical term, and -- and look at various futures, Mr. Williams.

MR. BYRON WILLIAMS: And, Mr. Rainkie,

you would agree with -- you would agree that the longer the time horizon of the forecast, the more likely that events will be unpredictable?

MR. DARREN RAINKIE: I suppose generally, Mr. Williams. I don't know. I'm not a statistician or anything like that. But -- I mean, herein lies the problem in the utility business, is that you have to take a very long view. Resource planning, by its nature, is a long-term intensive venture. And, you know, other businesses might not produce finan -- financial projections that far out to make their decisions.

But given that our mandate is to provide for a continuance of power in the future for all generations, we have to undertake that analysis by necessity.

MR. BYRON WILLIAMS: With its inherent uncertainty, agreed?

MR. DARREN RAINKIE: Yes. Once again, I point -- I point to the significant attempt we've made to quantify that uncertainty in this filing.

MR. BYRON WILLIAMS: And, for just a moment, I'm going to ask for assistance in going to Hydro Exhibit 97, which is the IFF13. It's not in the -- the book of documents. And the cover page will suffice for right now. Mr. Rainkie, we'll come into this in -- with a bit of detail a bit later, so you'll want to have it at -- at hand.

But, sir, I -- I noted you mentioning, or responding to Mr. Peters yesterday, that as you work on the new IFF you tend to forget about the old one.

Do you recall making a statement to that effect?

MR. DARREN RAINKIE: Yes, in relation to it; I can't remember every figure from each document, Mr. Williams.

MR. BYRON WILLIAMS: And IFF13 is the most recent Manitoba Hydro integrated financial forecast, agreed?

MR. DARREN RAINKIE: Yes, it was just approved by our Board on February 26th of this year.

MR. BYRON WILLIAMS: And it forms the basis for your double the rate of inflation proposed rate increase for 2014/'15, correct?

MR. DARREN RAINKIE: Yes, it continues to show that those -- that the 3.95 percent rate increase that we had previously forecasted in 2014/'15 is still required.

MR. BYRON WILLIAMS: And with one (1) exception being the very recent changes in DSM scenarios, and the consequent effect on the load forecast, IFF2013 represents Manitoba Hydro's best guess at its financial future over the next twenty (20) years, sir.

Would that be correct?

MR. DARREN RAINKIE: Yes, Mr. Williams.

MR. BYRON WILLIAMS: And I don't think we need to bring it up, but marked as Manitoba Hydro Exhibit 98 would be the capital expenditure forecast, or CEF13, agreed, Mr. Rainkie?

MR. DARREN RAINKIE: I'm advised that is the right reference, Mr. Williams.

MR. BYRON WILLIAMS: Pass my thanks onto Ms. Boyd.

And with one (1) exception again, being the recent changes in the capital estimates of Keeyask and Conawapa, CEF13 represents Manitoba Hydro's best guess at its capital expenditure's future over the next twenty (20) years, agreed?

MR. DARREN RAINKIE: Our best forecast, best guess, might denigrate the fine work that people do in my business unit, but...

MR. BYRON WILLIAMS: Fair enough, Mr. Rainkie. You have to let me have a little fun, sir.

If we can turn to CAC Exhibit 45-5, page

20. And that should be at Tab 5.

(BRIEF PAUSE)

MR. BYRON WILLIAMS: Mr. -- oh, Mr. Rainkie, you recall this document being a -- the twenty (20) year financial outlook of Manitoba Hydro, which was prepared in January 2010 for the period between 2009/'10 and 2028/'29, agreed, sir?

MR. DARREN RAINKIE: Yes, I recall it.

MR. BYRON WILLIAMS: And I'll ask you to agree with me or to accept subject to check that it -- that it was found as Appendix 16 to Manitoba Hydro's general rate applications for 2010/'11 and '11'/12. Would you accept that, sir, subject to check?

MR. DARREN RAINKIE: Yes, my recollection is -- is that it was filed during that process that you just mentioned.

MR. BYRON WILLIAMS: And we can flip to page 21 of this document near the top, if you would. And really, this twenty (20) year financial outlook is an extension of the integrated financial forecast, IFF091, approved by the Hydro Board in November of 2009, agreed, sir?

MR. DARREN RAINKIE: Yes. Back then we

used to do a ten (10) year, and then we would do an extension to a twenty (20) year, and we've just cut out the middle man now, and do a twenty (20) year.

MR. BYRON WILLIAMS: And this outlook was, at the point in time, Manitoba Hydro's best forecast, to use your words, of the long-term financial direction of Manitoba Hydro based upon the assumptions of future events, agreed, sir?

MR. DARREN RAINKIE: Yes, that's a fair characterization.

MR. BYRON WILLIAMS: In essence, this was your twenty (20) year outlook, but four (4) years ago, correct?

MR. DARREN RAINKIE: Correct.

MR. BYRON WILLIAMS: And staying on page 21 for a moment, sir, you'll see in the second full paragraph, a discussion in the -- the first two (2) sentences of the famous decades of investment, decade of return scenario. Do you see that, sir?

MR. DARREN RAINKIE: Yes, I do.

MR. BYRON WILLIAMS: And really, what Hydro was doing in this document, and -- and in its discussion of the decade of investment and the decade of returns is purporting to outline its future and -- and the implications for Hydro and its ratepayers of pending major investments in Wuskwatim, Keeyask, Conawapa, and Bipole III, agreed?

MR. DARREN RAINKIE: Yes. All of those projects were part of this forecast, Mr. Williams.

MR. BYRON WILLIAMS: And if you flip to page 22, and you'll see towards the bottom of -- right there's fine, thank you. You'll see a reference to export contracts. Do you see that, Mr. Rainkie, under number 6, sir?

MR. DARREN RAINKIE: Sorry, I was looking elsewhere. Yeah, okay, I have that.

MR. BYRON WILLIAMS: And at this point in time, and this forecast was premised upon three (3) major export opportunities. You'll agree with me, sir?

(BRIEF PAUSE)

MR. DARREN RAINKIE: You're referring to the three (3) mentioned, WPS, Minnesota Power, and NSP?

MR. BYRON WILLIAMS: I -- I was, sir. You're agreeing with me?

MR. DARREN RAINKIE: Yes, that's stated as the key assumption in the forecast.

MR. BYRON WILLIAMS: Okay. And

certainly at -- at that point in time, we were looking at a fifteen (15) year term sheet for Minnesota -- excuse me, Wisconsin Public Service of 500 megawatts commencing in 2018. Agreed, sir?

MR. DARREN RAINKIE: My memory isn't that great, but it's stated here, so --

MR. BYRON WILLIAMS: You'll accept that subject to check.

MR. DARREN RAINKIE: -- I'll accept that.

MR. BYRON WILLIAMS: And you'll accept as well, subject to check, we were looking at a fourteen (14) year, 250 megawatt term sheet with Minnesota Power commencing in 2022, agreed?

MR. DARREN RAINKIE: That's right.

MR. BYRON WILLIAMS: And again, subject to check, essential to this forecast was the ten (10) year NSP contract extension to 500 megawatts to commence in 2015, agreed?

MR. DARREN RAINKIE: That's also the assumption, yes.

MR. BYRON WILLIAMS: Okay. And if we scroll down just a little bit farther on this page to capital expenditures, Mr. Rainkie, without getting into the -- the nitty gritty of the numbers, you'll agree with me that amongst the assumptions for major capital expenditures in the first decade of investment, were expenditures on Wuskwatim, Keeyask, and Bipole III, with additional expenditures on Conawapa anticipated in the -- in the next decade, agreed?

MR. DARREN RAINKIE: Agreed.

MR. BYRON WILLIAMS: Now, in this forecast, we have Conawapa being completed a -- a few years earlier, being 2022/'23, correct?

MR. DARREN RAINKIE: Yes. In 2009, it was 2023.

MR. BYRON WILLIAMS: Now, sir, if you'll turn to page 24 of this document -- of -- of the exhibit, being CAC Exhibit 45-5, and I'll direct your attention, Mr. Rainkie, to the fifth last row. You'll see what was, at the time, Manitoba Hydro's projections for the general electricity rate increases for the time period between 2011 and the year ended March 31st, 2020, agreed?

MR. DARREN RAINKIE: Agreed.

MR. BYRON WILLIAMS: And in the first two (2) years, Hydro -- being 2011 and 2012, Hydro was looking at 2.9 percent increases, sir, correct?

MR. DARREN RAINKIE: Yes.

MR. BYRON WILLIAMS: And moving out to

March 31st, 2020, for the next number of years, they were looking at rate increases of 3.5 percent, agreed?

MR. DARREN RAINKIE: Yes.

MR. BYRON WILLIAMS: And if you want to turn to the next page, being page 25 of CAC Exhibit 45-5, Mr. Rainkie, again, directing your attention to the fifth last line, you'll see the Corporation's projection in January of 2010 for general elect -- electricity rate increases for the year -- for the years between 2021 and 2029, agreed?

MR. DARREN RAINKIE: Agreed.

MR. BYRON WILLIAMS: And there we see what was projected as the decade of returns being rate increases at roughly the rate of inflation for each of these years at around 2 percent, correct, sir?

MR. DARREN RAINKIE: Yes, the assumption at that point was 2 percent rate increases.

MR. BYRON WILLIAMS: Okay, thank you. If we could just flip back to page 24 for a moment, please? Thank you. And -- yes, scroll down. That -- that's lovely, there.

And, Mr. Rainkie, if we look at the decade of investment, as it was so named in January of 2010, you'll agree with me that the -- directing your attention to the third last line, that the lowest the equity got in that period was at 20 percent, correct, sir? You'll see that beginning in 2016?

MR. DARREN RAINKIE: Yes, that looks correct, Mr. Williams.

MR. BYRON WILLIAMS: And subject to check, you'll agree with me that the expectation was that the equity would get no lower than 20 percent, and that it would endure at that lower level for four (4) years, being the years between 2016 and 2019, agreed?

MR. DARREN RAINKIE: Yes, that's what this says.

MR. BYRON WILLIAMS: Okay. If -- if we could turn to page 27 for a moment, please. Again, this is CAC Exhibit 45-5. Now, Mr. Rainkie, I want to go -- stay on that equity ratio line, and first of all, direct your attention to the year 2025, which is the fifth last year in the -- in the decade of returns. Do you see the equity ratio amount for that year, sir, be in the 30 percent?

MR. DARREN RAINKIE: Yes, I do.

MR. BYRON WILLIAMS: So the -- and then you'll agree that the Corporation's projection as of January 2010, looking out to 2029, was that its equity would be at a handsome 49 percent. Is that correct, sir?

MR. DARREN RAINKIE: Yes, sir. I mean, I -- I always, in looking at this forecast, took that with a bit of a grain of salt, that I -- I don't -- I don't think we would probably have -- have got to that extent that we had a 50/50 capital structure, Mr. Williams. I mean, and this goes back to our earlier discussion about twenty (20) year forecasts being directional documents, not -- you know, not exactly what might happen, but...

MR. BYRON WILLIAMS: And that's helpful, Mr. Rainkie. And -- and just stay with me for a couple moments, and then we'll -- we'll move onto the IFF2013, but if -- if we just go down that 2029 line to the retained earnings row, you'll see the projection in the twenty (20) year forecast were -- was for retained earnings in excess of $11 billion by 2029. Is that correct, sir?

MR. DARREN RAINKIE: That's correct.

MR. BYRON WILLIAMS: And even if we move across to the left four (4) years to 2025, we'll see that it was projected that four (4) years before the end of that twenty (20) year forecast retained earnings would be at almost $7 billion.

Agreed, sir?

MR. DARREN RAINKIE: Yes, that was the

forecast at that point in time.

MR. BYRON WILLIAMS: And just back to page 26 for one (1) second, please.

(BRIEF PAUSE)

MR. BYRON WILLIAMS: Mr. Rainkie, I just want to direct your attention to the retained earnings for the year ended March 31st, 2014, as projected in the decade of investment.

You'll agree with me that it was $2.6 billion, sir -- $2.616 billion, sir?

MR. DARREN RAINKIE: Yes, on a consolidated bas -- basis, yes.

MR. BYRON WILLIAMS: And would you agree, subject to check, that that is actually lower than the current projected retained earnings for March 31st, 2014, as set out in IFF2013, sir? And I'll suggest to you it's, subject to check, $2.678 billion.

MR. DARREN RAINKIE: Yes, given my presentation yesterday at December 31st, I would think that was in the ballpark, Mr. Williams.

MR. BYRON WILLIAMS: And so just to -- to look at the big picture, in January 2010 we were looking at entering the 2014/'15 year with about $2.6

billion in -- in retained earnings, and expecting to be out in -- north of $11 billion by 2029.

Would that be fair, sir?

MR. DARREN RAINKIE: Yes, based on the assumptions at that point, Mr. Williams.

MR. BYRON WILLIAMS: Now, if we could turn to IFF2013, page 20, please -- excuse me, yeah, Exhibit 97, page 20. Thank you.

(BRIEF PAUSE)

MR. BYRON WILLIAMS: And, Mr. Rainkie, I'm going to stay on the consolidated as opposed to the electric just for comparative purposes.

Is that all right with you, sir?

MR. DARREN RAINKIE: Yes, sir, that -- that's fine for, I think the purposes that we're doing this.

MR. BYRON WILLIAMS: And if we look first of all at the -- the decade of what was then the decade of investment, we see now that -- let me back up, sir. We can agree that over the life of the IFF Hydro was looking at -- or projecting general electricity rate increases of about 3.95 percent, sir.

Is that right?

MR. DARREN RAINKIE: Yes, sir.

MR. BYRON WILLIAMS: And if we focus, turning to -- we can stay on 20 and then flip over to 21 -- but if we focus on the 2020s, you'll recall, Mr. Rainkie, that back in -- in 2010 we were talking about the 2020s as being the decade of returns with forecast rate increases at around the rate of inflation.

Do you recall that?

MR. DARREN RAINKIE: Yes. I mean, the decade -- the investment decade of return wasn't a hard and fast, you know, breakpoint at 2020, Mr. Williams. It was a euphemism, or whatever the right term is at that point.

MR. BYRON WILLIAMS: But -- but it was a mathematical breakpoint, sir, in that for the first decade you are looking at rate increases annually of 3.5 percent back in 2010, and then for the second decade you were looking at projected rate increases at 2 percent, agreed?

MR. DARREN RAINKIE: Yes, that's what's the -- the mechanics in the forecast. The term, as it was used at the time, I'm not sure was as specific as, you know, cutting off right at 2020, but --

MR. BYRON WILLIAMS: It -- it was flowery rhetoric similar to Mr. Schulz's beautiful ghosts and mirages from this morning.

Fair enough, Mr. Rainkie?

MR. DARREN RAINKIE: Yeah, it was a little bit like betting the farm, Mr. Williams.

MR. BYRON WILLIAMS: Touche, Mr. Rainkie. I like that one, sir. But we are agreed that the sharp contrast, sir, between the IFF in 2009 and in 2013 is that rate increases for the 2020s are roughly double what they were projected four (4) years ago, correct, sir?

MR. DARREN RAINKIE: Yes. I mean, as you -- as you probably know from being a participant in the hearings over the last number of years, there was a significant reduction in export revenues over that time frame. And so that's the best estimates that we have now.

You know, what will happen in the ensuing decades, you know, I'm not sure. You know, we'll have several business cycles over the next number of decades, Mr. Williams, so certainly these are the -- what we're going through are the forecasts that existed and existed now. I mean, once again I take you back to our uncertainty analysis to try to inform the -- the Board in terms of the possible ranges of those outcomes, because we don't know with certainty what will happen.

MR. BYRON WILLIAMS: Fair enough, sir. And just to -- to finish the point here, if we look at the IFF2013, and focussing on the equity line, the last two (2) years on -- on this page, 26, and then scrolling over to the next page as well, you'll agree with me that now the -- the low, in terms of equity, is forecast to be 11 percent, and it is forecast to endure for six (6) years, sir, based upon this IFF?

MR. DARREN RAINKIE: Yes, sir.

MR. BYRON WILLIAMS: And that would be without some additional -- that -- that's fine, sir. We'll -- we'll hold it there.

And if we look to the year 2029, or four (4) years before the end of the forecast -- so that's on page 21 of the IFF -- we'll see that the equity is projected to be at 13 percent, sir.

Is that correct?

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

MR. BYRON WILLIAMS: And by 2029, or four (4) years before the end of the forecast -- going up a couple of lines -- the -- actually, sir, the -- the retained earnings are on a subsequent page. Just bear with me for -- for one (1) second. Turning to page 23. Thank you.

If we focus again on that 2029 year, the retained earnings are focussed -- are projected to be at about 3. -- somewhere between 3.8 and 3.9 billion.

Is that correct, sir?

MR. DARREN RAINKIE: That's correct.

MR. BYRON WILLIAMS: Now, Mr. Rainkie, if I could direct your attention for a moment to CAC-45-6, the smaller document, and specifically to Tab 1, page 1. And if you'll scroll down just -- yeah, that's lovely. Thank you. That's fine there.

Mr. Rainkie, what you -- you see CAC (Manitoba) attempting to do here is put side-by-side the projected debt ratio in IFF09 versus IFF13, as well as the projected rate increases in IFF09, IFF13, for a series of years.

Do you see that, sir?

MR. DARREN RAINKIE: Yes, I think I understand the general intent here.

MR. BYRON WILLIAMS: And, Mr. Rainkie, you'll accept, subject to check, that this is a accurate portrayal of the information captured in the IFF09 and IFF2013? You'll accept that, subject to check, sir?

MR. DARREN RAINKIE: Yes, Mr. Peters

(sic). I've been reading documents late into the evening. I can hardly see the printed page anymore. But I have to reason to suspect that you didn't put the right figures there.

MR. BYRON WILLIAMS: You flatter me, sir, because I'm Mr. Williams, but -- and I don't have a tie or a look that's nearly as sharp as Mr. Peters.

MR. DARREN RAINKIE: You know what, I'm use -- I'm so used to looking this way, and now -- I knew this was going to happen at some point.

MR. BYRON WILLIAMS: I have carefully arranged for Mr. Peters to ask a couple of questions just to throw you off a little bit, Mr. Rainkie.

And -- and, Mr. Rainkie, I won't go through this, but you'll let us know if you find any errors in our representation of this information, would you -- would you, sir? It is not an undertaking, but you'll accept this subject to check?

MR. DARREN RAINKIE: Yes, I will, Mr. Williams.

MR. BYRON WILLIAMS: And again, Mr. Rainkie, we'll just pick one (1) year for fun. Let's pick 2029. We see under IFF09 the projected debt ratio was 51 percent, correct, sir?

MR. DARREN RAINKIE: That's correct.

MR. BYRON WILLIAMS: And we can compare that with the IFF13 projection as well, being 87 percent, sir, correct?

(BRIEF PAUSE)

MR. DARREN RAINKIE: Sorry, Mr. Williams, can you just -- I got too many documents going here. Could you just repeat that again.

MR. BYRON WILLIAMS: And I apologize, Mr. Rainkie. I guess we're asking you to confirm, subject to check, that the projected debt ratio for -- for the year 2029 for IFF13 is 87 percent, correct?

MR. DARREN RAINKIE: Yes, Mr. Peters. Now -- Mr. Williams, sorry. I've got to get out of my -- my stupor here.

Yeah, 13 percent. I mean, I'll note that that's not the end of the current IFF13 forecast that -- but the equity ratio rapidly goes up after that in IFF13 to -- by 2033 to 20 -- 22 percent. So, you know, you've cut -- cut this analysis off at 2029, but our forecast does extend to 2033.

MR. BYRON WILLIAMS: Yeah. That's fair enough, Mr. Rainkie. And you're certainly not suggesting we were being unfair because that would be the only info we had for IFF09, would -- would run out to 2029, agreed?

MR. DARREN RAINKIE: No, I'm not suggesting that you're being unfair, Mr. Williams. I'm -- I'm just saying that there is a pretty rapid escalation of the equity ratio, or deceleration of the debt ratio, torwards the end of IFF13.

MR. BYRON WILLIAMS: Fair enough. And you don't need to apologize for being in a stupor, because that betting-the-farm line earned you a lot of credit, sir.

So I do want to stay with IFF2013 for a moment, and -- and go to page 20, sir. And...

(BRIEF PAUSE)

MR. BYRON WILLIAMS: And if you can -- yeah, that's fine right where it is. Thank you.

Mr. Rainkie, I want to focus your attention to the net income line for the years 2018 to '22. Do you have that, sir? Do you see it?

MR. DARREN RAINKIE: Yes, I do.

MR. BYRON WILLIAMS: And set out on -- in those years are one (1) year of projected zero net income being 2018, correct, sir?

MR. DARREN RAINKIE: Correct.

MR. BYRON WILLIAMS: And then four (4) years of losses with the highest loss being the projected $62 million loss in 2021, correct, sir?

MR. DARREN RAINKIE: That's correct.

MR. BYRON WILLIAMS: And will you accept, or may -- maybe Mr. Barnlund has a calculator here, but will you accept, subject to check, that a simple addition of those numbers would yield 100 -- a loss of $181 million, sir?

MR. DARREN RAINKIE: That -- that looks about right.

MR. BYRON WILLIAMS: If we could turn back now to CAC Exhibit 45-5, page 24. And right there is fine. And again, Mr. Rainkie, 'cause I know I'm flipping you between pages, and I apologize a little bit for that, but you'll agree with me that this is an excerpt from IFF -- from the -- the twenty (20) year forecast in -- filed on -- on January -- in January of 2010, agreed, sir?

MR. DARREN RAINKIE: Yes, it's a forecast from four (4) years ago.

MR. BYRON WILLIAMS: And again focussing your attention on those same years, you'll see that, as opposed to -- to the zero net income in

IFF2013 for 2018, we're looking at a handsome projected net income of 246 million, sir.

Do you see that?

MR. DARREN RAINKIE: Yes, sir.

MR. BYRON WILLIAMS: And if we go along that line we'll see again for 2019, Manitoba Hydro projecting back in 2010 a $257 million in net income on a consolidated basis, agreed, sir?

MR. DARREN RAINKIE: That's correct.

MR. BYRON WILLIAMS: And that would contrast with the projected loss currently of $55 million, sir?

(BRIEF PAUSE)

MR. DARREN RAINKIE: Sorry, Mr. Williams. I was -- what I was trying to remember in this forecast is the year that the Keeyask generating station went into service because, of course, one (1) of the things that would drive net income would be deriving the revenue from that project.

I mean, certainly, there's lots of things that have happened in the forecast in the last four (4) years, the major one being a reduction in the assumption of export prices.

But I was -- you know, the -- the context of these types of discussions is very dependant on when these large projects are coming in service.

MR. BYRON WILLIAMS: Well, Mr. Rainkie, if we looked at the finance expense, you see a sharp jump in 2019 and 2020.

Do you see that, sir?

MR. DARREN RAINKIE: Yes, I do.

MR. BYRON WILLIAMS: Yeah, and that might be around the time you'd have ex -- expected some of the big projects to be coming in.

Would that be fair, sir?

MR. DARREN RAINKIE: Yes, I guess it -- I'm advised it was in -- the assumption was fiscal 2018/19, one (1) year earlier than the current forecast.

MR. BYRON WILLIAMS: So, despite those major capital additions, the Corporation was forecasting a -- a handsome return.

Agreed, sir?

MR. DARREN RAINKIE: Yes. Once again, based on the export price assumptions of the day, that -- those -- those net incomes were looking decent.

MR. BYRON WILLIAMS: And, Mr. Rainkie, I can do the math for you, but let's -- let's actually flip over to next page, page 25, just for one (1) moment. Again, focussing on that net income line, you'll agree by 2022, sir, the Corporation is projecting a net income of $450 million, sir?

Agreed?

MR. DARREN RAINKIE: Yes.

MR. BYRON WILLIAMS: And I wonder if you would accept, subject to check, for that five (5) year period from 2018 through to 2022, Manitoba Hydro back in 2010 was projecting $1.5 billion in net in -- income over that period?

MR. DARREN RAINKIE: Plus or minus, that seems reasonable, Mr. Williams.

MR. BYRON WILLIAMS: And if we look at the swing in the forecast over those years, sir, between IFF10 -- excuse me -- the -- the twenty (20) year forecast in January of 2010 versus your 20 -- your forecast in February of 2014, we've got a swing of somewhere between $1.6 billion and $1.7 billion.

Agreed, sir?

MR. DARREN RAINKIE: Based on your earlier math, yes, Mr. Williams.

(BRIEF PAUSE)

MR. BYRON WILLIAMS: Mr. Rainkie, we're going to leave these exhibits for a -- for a while, except for one (1) last question. So in terms of Hydro Exhibit 97, page 32, if you could go there for a minute.

And now, Mr. Rainkie, I'm directing your attention to the electric operations forecast.

You see that, sir?

MR. DARREN RAINKIE: I have that.

MR. BYRON WILLIAMS: Sir, again focussing on those 2018 to 2022 years, you'll see a -- a period of projected losses which I'll suggest to you totals $230 million, subject to check?

MR. DARREN RAINKIE: I'll accept that subject to check.

MR. BYRON WILLIAMS: And that's even with the proposed 3.95 percent rate increases within the forecast, sir?

MR. DARREN RAINKIE: Yes, it is, Mr. Williams. I'm glad you're making -- helping me make my case why we need to continue to have those rate increases.

MR. BYRON WILLIAMS: Well, Mr. -- Mr. Rainkie, we'll get to that -- that debate, I guess, a bit later.

But you'll recall in your discussion with Mr. Peters both yesterday and today, you recall Hydro getting a bit of extra help from the Public Utilities Board and -- and that it actually received more than it -- it had asked for on -- on a couple of occasions.

Agreed, sir?

MR. DARREN RAINKIE: Yes, there's no doubt that we've had a supportive regulatory environment in Manitoba which we're thankful for.

MR. BYRON WILLIAMS: And it's conceivable that notwithstanding the politics of staying under 4 percent rate increases, a reasonable regulator might think that's not -- simply not a robust enough performance in those years?

MR. DARREN RAINKIE: I can't speak for the Public Utilities Board, but certainly you've cited the situation where the PUB has given us rate increases higher than asked for. It doesn't happen very often, I don't think, but the -- it's not out of the -- out of the realm of possibility.

MR. BYRON WILLIAMS: We'd certainly like to make it happen even less often, sir. But you'd agree that a reasonable regulator facing a heightened period of capital expenditure and would appear to be adverse results lasting five (5) years might be tempted to -- to go above that magic 4 percent?

MR. DARREN RAINKIE: They might, sir. I mean, as -- as we -- as the discussions that I have had with the chair unfold, we don't tend to just look at what's happening in the one (1) particular year in the -- on our cost of service method -- regulation methodology. We tend to look where we're going in the next number of years to try to make rate determinations.

So, you know, I -- what would happen in those years, I assume, would be dependent on what was going on in the forecast in the next five (5) or ten (10) years, sir. So I'll -- I'll just add that it's not -- you just can't look at one (1) column and make a decision. That would be more like a rate-based rate of return type of a methodology versus the methodology we've enjoyed here in Manitoba for years -- or decades.

MR. BYRON WILLIAMS: Okay. Thank you for that, Mr. Rainkie, and I appreciate your cooperation in going through a lot of numbers, and your courtesy is much appreciated. I wonder if we could turn to Hydro Exhibit 111, which is your PowerPoint presentation from yesterday, and page 66 in particular.

(BRIEF PAUSE)

MR. BYRON WILLIAMS: Mr. Rainkie, you'll -- you'll recall an extended discussion you had with the Chair yesterday in -- in terms of this slide? Do you recall that, sir?

Hard to recall, isn't it?

MR. DARREN RAINKIE: I had a lot of discussions with the chair yesterday. I'm not sure...

MR. BYRON WILLIAMS: But -- but it's so rare that you have extended discussions, Mr. Rainkie. That's okay, it doesn't -- that -- that was just --

MR. DARREN RAINKIE: Was that a dig, Mr. Williams?

MR. BYRON WILLIAMS: I'm still trying to get at you for betting the farm, sir. But in -- what this slide portrays is a comparison of the retained earnings of the Preferred Development Plan under a five (5) year drought starting in 2027 and finishing in 2031/'32 versus the retained earnings of the All -- All Gas scenario for a five (5) year drought over the same period of time.

Is that fair, sir?

MR. DARREN RAINKIE: That's fair.

MR. BYRON WILLIAMS: And if we look to

the light green column above Preferred Development Plan, we see that even after that five (5) year drought extending between 2027/'28 and 2031/'32, the retained earnings under the Preferred Development Plan are in excess of $5 billion, sir? Am I reading the correctly?

MR. DARREN RAINKIE: Yes, you're reading that correctly.

MR. BYRON WILLIAMS: And just before I leave the Preferred Development Plan, is that the pre $800 million hit in capital expenses deferred -- Preferred Development Plan, Mr. Rainkie?

MR. DARREN RAINKIE: Yes, this was based on the original NFAT filing.

MR. BYRON WILLIAMS: And would it also con -- include the WPS investment, sir, in the US transmission line, as well?

MR. DARREN RAINKIE: Yes, Mr. Williams.

MR. BYRON WILLIAMS: Now, if I move over to the All Gas under the -- let's call it the light pink scenario, Mr. Rainkie. I'm not very good with colours.

Am I reading this correctly in suggesting that the retained earnings with the five (5) year drought would be a bit under $3 billion?

MR. DARREN RAINKIE: That's how I'm reading that, Mr. Williams, yes.

MR. BYRON WILLIAMS: So looking at the scenario of a five (5) year drought starting in 2027/'28 and finishing in 2132, we see a difference in retained earnings between the Preferred Development Plan and the All Gas Plan of a bit over $2 billion.

Would that be fair, Mr. Rainkie?

MR. DARREN RAINKIE: I think that's fair.

MR. BYRON WILLIAMS: Now, Mr. Rainkie -- and if you don't recall it, that's fine, but I think the Chair was trying to understand what was going on between the plans, and I -- I wonder if we could turn to CAC Exhibit 45-6, Tab 2, page 2.

(BRIEF PAUSE)

MR. DARREN RAINKIE: Would that be page 4 of the book of documents, or am I in the wrong one?

MR. BYRON WILLIAMS: Mr. Rainkie, I -- I hope that you have it. It is marked as page 2 in the book of documents. Is there some confusion in the books?

MR. DARREN RAINKIE: I'm back on track,

Mr. Williams.

MR. BYRON WILLIAMS: Mr. Peters's tie has put us all into a tizzy today, sir, I have to...

MR. DARREN RAINKIE: Jeez, the discussion has really broken down here in the last ten (10) minutes.

MR. BYRON WILLIAMS: Mr. Rainkie, you'll agree that what we're seeking to present here is the additional general consumers revenue under a -- a series of Manitoba Hydro scenarios for the time period between 2014 and 2032? Do you see that, sir?

MR. DARREN RAINKIE: Yes. I noticed that you cropped the time period at 2032.

MR. BYRON WILLIAMS: Well, Mr. Rainkie, just -- just in fairness, though, we're looking at that five (5) year drought period, are we not, sir, ending in 2031/'32 on the previous slide?

MR. DARREN RAINKIE: I'm not sure where we're going, Mr. Williams.

MR. BYRON WILLIAMS: Well, Mr. Rainkie, we just had a discussion, did we not, about the relative difference in retained earnings between Plan 1 and Plan 14 for a drought ending in 2031/'32. You recall that, sir?

MR. DARREN RAINKIE: Yes.

MR. BYRON WILLIAMS: So if one was seeking to explore the implications for retained earnings, sir, of additional consumer revenue, one would logically crop off that -- that discussion in 2032, would we -- would we not, sir?

MR. DARREN RAINKIE: I guess if that is the purpose of this table. I mean -- and it's your document. You -- you can tell me what the purpose is. I -- I wasn't sure if this document was trying to inform what's going to happen over the long-run. I didn't initially, and in fact, I've looked at it for about two (2) seconds, Mr. Williams, so.

MR. BYRON WILLIAMS: Okay. But -- but, Mr. Rainkie, we -- we've just been in a discussion trying to understand the difference between the two (2) plans during a drought scenario. Do you recall that, sir?

MR. DARREN RAINKIE: Yes, sir.

MR. BYRON WILLIAMS: And that drought scenario ended in 2031/'32, agreed?

MR. DARREN RAINKIE: Yes.

MR. BYRON WILLIAMS: And so if one were trying to hypothesize about reasons that might under -- underscore the difference in retained earnings between the years, sir, would one at least attempt to look at the different additional general revenues that might, in your -- under Plan 1 as -- as compared to Play 14, sir? Would that be a reasonable exercise?

MR. DARREN RAINKIE: Given that that flows into our revenues, that would be part of the equation.

MR. BYRON WILLIAMS: And Mr. Rainkie, I've had this double checked by Ms. Menzies and Mr. Harper, but you can certainly agree to accept our calculation, subject to check? Would you do that, sir?

MR. DARREN RAINKIE: Yes, for the purposes of moving it on. Once again, I have no belief that you wouldn't have done your best to transpose the numbers.

MR. DARREN RAINKIE: Well, I appreciate that, Mr. Rainkie. And if we look at the additional general consumers -- and -- and, Mr. Rainkie, just in -- in case you do have any doubts, I certainly have attached the materials that this was based upon in the subsequent attachments of the document. You can certainly invite your splendid back row people to double check my math.

Sir, you're -- you'll -- you'll accept my math now though, subject to check?

MR. DARREN RAINKIE: Yes, Mr. Williams,

let's -- let's go through it and see where -- we get.

MR. BYRON WILLIAMS: Okay. And for right now I just want to focus on two (2) plans, sir. And you'll agree, subject to check, that if we simply add the additional general consumers' revenue under Plan 1 for the time period from 2014 out to 2032, I'll get a total, slightly in excess of $13 billion.

Do you see that, sir, at the extreme right-hand side?

MR. DARREN RAINKIE: Yeah, I see the $13.0 billion.

MR. BYRON WILLIAMS: And if we go down a number of rows, sir, to Plan 14, again, starting from 2014 and going out to 2032, you'll see we arrive at a total, simply adding the nominal figures for each year, of $15.296 billion, sir?

MR. DARREN RAINKIE: Yes, I see that.

MR. BYRON WILLIAMS: If you'll excuse me for just one (1) second.

(BRIEF PAUSE)

MR. BYRON WILLIAMS: Mr. -- Mr. Rainkie, the difference between the two (2) plans would be what, roughly $2 billion?

MR. DARREN RAINKIE: Yes, based on your calculations.

MR. BYRON WILLIAMS: So if we go back to Manitoba Hydro Exhibit 111, slide 66, Mr. Rainkie, and -- and we seek to explore some of the reasons for the difference in retained earnings under the drought scenario between the Preferred Development Plan and the All Gas Plan, one (1) element of that, sir, would be the additional revenues paid by Manitoba consumers to Manitoba Hydro?

(BRIEF PAUSE)

MR. DARREN RAINKIE: Sorry, Mr. Williams, I was just checking with Ms. Carriere here, which was more -- much more familiar with the -- the details of the calculations. Could you just rephrase that again for our purposes?

MR. BYRON WILLIAMS: Mr. Rainkie, if we're trying to understand some of the reasons for the difference in retained earnings between the Preferred Development Plan and the All Gas Plan, coming out of a drought from 2027/'28 through 2031/'32, one (1) of those reasons would be that the Preferred Development Plan has been the beneficiary of higher additional consumer revenues through rate increases, as compared to the All Gas Plan.

Fair enough?

MR. DARREN RAINKIE: Yes, I think it's quite clear in our material that the assumption in the financial forecast prevent -- presented in NFAT was a rate -- 395 percent rate increases for the Preferred Development Plan, and something in the order of 3 1/2 percent rate increases for the All Gas Plan up to this point. I'm not sure then after this point if that situation reverses, because the Preferred Development Plan has a much significant lower rate increases to the end of the study period than the All Gas.

MR. BYRON WILLIAMS: Fair enough, Mr. Rainkie. And I only have so many fingers to count with, so we'll -- we'll stick with -- we'll stick with that for now.

I still want to further explore this difference though, sir. And I wonder if you can turn to CAC-45-5, page 34, please?

(BRIEF PAUSE)

MR. DARREN RAINKIE: I have that reference.

MR. BYRON WILLIAMS: Yeah. And, sir, you'll -- you'll see that this is a response of the Corporation to MIPUG Information Request 003c?

MR. DARREN RAINKIE: Yes, I see that.

MR. BYRON WILLIAMS: And what Manitoba Hydro is responding to here, I'll suggest to you, sir, is an -- a request by MIPUG to provide for a -- a breakdown of the amortization schedule for the sunk -- for sunk costs for projects that do not, under the various scenarios, proceed.

Agreed, sir?

MR. DARREN RAINKIE: I think that's a fair characterization.

MR. BYRON WILLIAMS: And -- and, Mr. Rainkie, I'm going to try and big-picture and then get to the details, but, in essence, what this -- this plan or this Information Response is trying to explain is in the event that Keeyask or Conawapa do not proceed, what happens to the costs that have already been invested up to June 2014. Agreed?

MR. DARREN RAINKIE: Agreed.

MR. BYRON WILLIAMS: And what this response tells us, if we can flip to the next -- well, let's stay on this page, sorry, for one (1) second -- is that if -- if Conawapa does not proceed, it's sunk cost amortization will count against certain plans, one (1) of which is the All Gas Plan, agreed?

MR. DARREN RAINKIE: Yes, that was the assumption in preparing the material.

MR. BYRON WILLIAMS: And, likewise, if Keeyask does not proceed, its sunk costs, both for this generating station and transmission, will apply against the All Gas Plan and other plans as well, agreed?

MR. DARREN RAINKIE: Yes, that's correct. Those costs can't stay indefinitely on our balance sheet forever.

MR. BYRON WILLIAMS: And it also tells us that if the US tie-line sunk cos -- does not proceed, it's sunk costs apply to a number of plans including the All Gas Plan 1 and the Plan 2, K22 gas, agreed?

MR. DARREN RAINKIE: It's a relatively small part of this schedule, but, yes, Mr. Williams.

MR. BYRON WILLIAMS: And -- and -- if we turn to the next page of this response, which would be page 35 of CAC Exhibit 45-5, we see that Hydro's estimate of the sunk costs for this -- for these four (4) elements is somewhere in the range of $1.58 billion, sir?

MR. DARREN RAINKIE: That's correct.

MR. BYRON WILLIAMS: And what this schedule is telling us is that for the purposes of accounting for these books, that $1.58 billion is amortized over -- over the period up until 2033, sir.

Is that right?

MR. DARREN RAINKIE: Yes. One (1) of the assumptions, as Ms. Carriere went through yesterday, is that those costs would be amortized over that same eighteen (18) year period to 2032.

MR. BYRON WILLIAMS: And if we -- we can pick any year in particular, but let's pick 2029 since it's been such a popular year. The total annual amortization expense, sir, would be 87.64 million in that particular year?

MR. DARREN RAINKIE: That's correct, Mr. Williams. It's straight lined, so with the exception of the '14/'15 year which is, I guess, a partial year, it's that same figure in every -- in the -- in the next seventeen (17) years of the eighteen (18) year period.

MR. BYRON WILLIAMS: And am I correct in suggesting to you that those sunk costs would be added to the analysis of the costs of Plan 1, for example?

MR. DARREN RAINKIE: Yes, they would be

added to the cost of the All Gas Plan, because the plants -- under those scenarios, it's assumed that those two (2) plants do not -- are never put into production, and we would have to start amortizing those costs at some point.

MR. BYRON WILLIAMS: And Mr. Rainkie, I don't want you to assume that my clients are fans of the All Gas Plan, but just when we're looking at that drought scenario, we have to understand that the All Gas Plan is bearing both its own costs as well as a -- a significant amount of the sunk costs in the -- in the Preferred Plan.

Would that be fair, sir?

MR. DARREN RAINKIE: That's fair. I'm not sure about the word 'bearing', but it's -- it's what we've assumed in these calculations -- I -- if, as we said, in one (1) of the other Information Res -- Responses, these costs could not stay on our balance sheet forever, and the reality is, is if we abandon the Preferred Development Plan at some point we would have to expense -- expense these costs.

MR. BYRON WILLIAMS: Okay. Thank you, Mr. Rainkie.

THE CHAIRPERSON: Mr. Rainkie, eighteen (18) years was picked for what reason?

MR. DARREN RAINKIE: Well, we had a interesting debate how to -- how to -- to pick this. We started off, I think, at five (5) or ten (10) years, and then I think what -- what I thought was that if we did it over five (5) or ten (10) years it would look like we were somehow trying to overly tax the -- the All Gas Plan. So eighteen (18) years seemed to be a sufficiently long period of time.

We -- we wouldn't want to write these off very quickly, and we couldn't keep them on our balance sheet forever. At some point our auditor would say, We're not expecting recovery of those, so you would have to start writing them off. So the eighteen (18) year period seemed to be a sweet spot in the middle between never amortizing them and amortizing them over a very short period.

We used to have a -- an accounting policy at Manitoba Hydro of amortizing planning study costs over fifteen (15) years, and some of the accounting standards changed a few years ago. We -- we stopped that and we expensed those costs. So I think all those things weighed into my mind in saying, Well, let's just use the same, you know, period as the -- even annual rate increases out to '19 -- to 2032.

CONTINUED BY MR. BYRON WILLIAMS:

MR. BYRON WILLIAMS: Mr. -- Mr. Rainkie -- and I -- I'm assuming it's you until you tell me otherwise, if you could turn to Hydro Exhibit 98, which is CEF2013, and to page 14 of that document. Sir -- oops, it's page -- page 14. I just seen Ms. Carriere is looking for --

MR. DARREN RAINKIE: The -- the first project being the Bipole III transmission line, Mr. --

MR. BYRON WILLIAMS: That's right.

MR. DARREN RAINKIE: -- Williams? Yeah.

MR. BYRON WILLIAMS: And, Mr. Rainkie, I have a couple of short -- short snappers in this area, just to clarify for my client.

If we think of the -- the costs of Bipole III to include the transmission line, the converter stations, and the collector lines, we get to about $3.2 billion, sir -- rough -- subject to check?

MR. DARREN RAINKIE: I think it's about 3.28, but that's good.

MR. BYRON WILLIAMS: Thank -- thank you for that. And is my client correct in understanding that those costs would be attached to all -- all of the Hydro plans for the purposes of its scenario analysis?

MR. DARREN RAINKIE: Yes, Mr. Williams.

MR. BYRON WILLIAMS: If we could flip to page 13 of CEF13, Manitoba Hydro Exhibit 98, and scroll down towards the bottom of the page, Mr. Rainkie -- right there is perfect, thank you -- you'll see here reference to GREP, being the acronym to the Gillam Redevelopment and Expansion Program.

Do you see that, sir?

MR. DARREN RAINKIE: Yes, I do.

MR. BYRON WILLIAMS: And I see the -- the total for this redevelopment and expansion program is -- is $366.5 million, sir.

Is that correct?

MR. DARREN RAINKIE: Yes, that's the projected project cost.

MR. BYRON WILLIAMS: And it indicates here it was a previously approved cost, so I'm assuming that it would have appeared in CEF2012, subject to check?

MR. DARREN RAINKIE: That's a fair assumption, Mr. Williams.

MR. BYRON WILLIAMS: And, sir, I think I know the answer to this but I just am -- want to make sure. The cost of $366.5 million, would they -- for the Gillam Redevelopment and Expansion Program -- would they have been restricted to projects involving Keeyask and Conawapa, or would they have been applied to all fourteen (14) plans, including the -- the All Gas Plan?

MS. LIZ CARRIERE: I'm sorry, can you repeat the question?

MR. BYRON WILLIAMS: Ms. Carriere, I doubt it, but I will -- what I'm asking is: The $366.5 million, would those costs have been restricted to the scenarios or plans of Hydro involving Keeyask and Conawapa, or would they also have counted against scenarios such as the All Gas Plan?

MS. LIZ CARRIERE: It's in all of the plans, so it's considered common capital.

MR. BYRON WILLIAMS: Now, if I -- and, Mr. Rainkie, if this is the wrong panel, you'll let me know, and Ms. Carriere? But if one looks at the justification for the GREP plan, it appears that a key rationale is to support corporate initives -- initiatives to develop the hydroelectric potential of the Lower Nelson River. Is that correct?

MR. DARREN RAINKIE: Yes, it's part of the justification description, Mr. Williams.

MR. BYRON WILLIAMS: Yet these costs count against the All Gas Plan?

(BRIEF PAUSE)

MR. DARREN RAINKIE: I'm not sure they count against any plan, Mr. Williams. It's just assumed that the -- we would undertake this project regardless of the future Development Plan that is selected. In other words, it's not -- I don't -- I wouldn't think of it as being charged against any plan, but simply part of the common capital that's in all of the financial scenarios.

MR. BYRON WILLIAMS: Is not the -- one (1) of the justifications, sir, to prepare for the growth associated with new generation facilities?

MS. LIZ CARRIERE: I think if you read on it -- it says that the:

> "Improves the overall quality of infrastructure in Gillam, which positively affects the attraction and retention for existing and new generation facilities."

MR. BYRON WILLIAMS: Okay. So just -- we'll leave this point, but I'm correct in understanding that this counts against all plans, including the -- the All Gas Plan, correct, or it's included in the calculations of all plans, including the All Gas?

MS. LIZ CARRIERE: Yes, it's included in the common capital for all plans.

MR. BYRON WILLIAMS: Mr. Rainkie, I -- I may have been teasing you too much today, and if so, you'll accept my semi-sincere apology, but you'll recall earlier we had a discussion of humility?

MR. DARREN RAINKIE: Mr. Williams, your apologies to me, I've learned over time, is usually a trap, but I recall the conversation.

MR. BYRON WILLIAMS: And in addition to assuming you are a humble man, it would be fair to describe you as a reasonable man, agreed, sir?

MR. DARREN RAINKIE: I would hope so. I -- I share your farm boy lineage, Mr. Williams.

MR. BYRON WILLIAMS: We'll have to compare details over coffee, Mr. Rainkie. And as a reasonable man, you would agree with the generally accepted proposition that a dollar in a future year is worth less than a dollar -- that same dollar in the current year, agreed?

MR. DARREN RAINKIE: If I didn't, I'd have to hand in my chartered bus -- business evaluator certificate back to the Canadian Institutes of Chartered Business Evaluators, so, yes, Mr. Williams.

MR. BYRON WILLIAMS: That was a yes. Okay, thank you. Ms. Carriere -- and again, if -- I -- I think it's you, but if it's not, you'll pass me on. You'll recall that both in your discussion with My learned Friend, Mr. Peters, yesterday, and in the discourse throughout this hearing, there has been a discussion of different ways in which one might look at the implications on ratepayers of the proposed -- of the different plans. You'll recall that?

MS. LIZ CARRIERE: That's correct.

MR. BYRON WILLIAMS: With one (1) approach being to look at the cumulative rate increases at a point in time, agreed?

MS. LIZ CARRIERE: Agreed.

MR. BYRON WILLIAMS: One (1) of the other approaches being to look at the NPV on ratepayers, or net present value, agreed?

MS. LIZ CARRIERE: It's one (1) of the metrics, yes.

MR. BYRON WILLIAMS: And I wonder if you can assist me and turn to -- to CAC (Manitoba) 45-6, page 11. So that's 45-6, not 45-5. And after Mr. Peters -- oh, it's page 11, Ms. Carriere. After Mr. Peters' discussion with Mr. Schulz, I'm reluctant to work -- use the word 'hypothetical,' so I -- I may use the word 'illustrative example.'

And, Ms. Carriere, you'll see here an -- an illustrative example, you'll agree with me, looking at different ways to understand the implications of different plans on consumers. Will you accept that?

MS. LIZ CARRIERE: I'll accept that for the purposes of this.

MR. BYRON WILLIAMS: Thank you. And your cleaver people in the back row have had the chance to double check the math of Mr. Harper and -- and myself, agreed?

MS. LIZ CARRIERE: Yes, the values presented seem to be correct.

MR. BYRON WILLIAMS: Okay. Thank you for that, and my thanks to the -- the folks for assisting with that.

(BRIEF PAUSE)

MR. BYRON WILLIAMS: And, Ms. Carriere, if you'll help me to -- to work though this example, and certainly feel free to offer any commentary as we work through, but we're starting with the bas -- basic hypothesis that the customer's current annual electric bill is fourteen hundred dollars ($1,400), agreed?

MS. LIZ CARRIERE: Sorry, agreed.

MR. BYRON WILLIAMS: And the electric utility is considering two (2) options with respect to electric supply over the next ten (10) years. That's the premise of this illustrative example, Ms. Carriere, agreed?

MS. LIZ CARRIERE: I'll accept that.

MR. BYRON WILLIAMS: And of course, it's -- it's highly simplified, with Option 1 resulting in rate increases of 3 percent per annum for each of the first five (5) years, and then no rate increases thereafter. You'll accept that for the premises of this discussion?

MS. LIZ CARRIERE: Yes.

MR. BYRON WILLIAMS: And Option 2 resulted in no rate increases for the first five years, and then 3 percent per annum for each of the next five (5) years, agreed?

MS. LIZ CARRIERE: I'll agree to the point, except that 3 percent rate increases in the first five (5) years is not the same as 3 percent rate increases in the back end.

MR. BYRON WILLIAMS: And that may indeed be the point, Ms. Carriere, and we'll come back to the time value of money discount rates. It's got

Mr. Rainkie's favourite assumption of 5 percent there, but we'll come back to that a bit later.

And just as we look through the annual bill results, Ms. Carriere, we do see that Option 1 example with the rates going up each year, up until year 5. Do you see that, Ms. Carriere? This is under Option 1.

MS. LIZ CARRIERE: Yeah.

MR. BYRON WILLIAMS: Plateauing at the figure of one thousand six hundred and twenty-three (1,623), and then continuing on under Option 1 to the end of the example to year 10.

Agreed, Ms. Carriere?

MS. LIZ CARRIERE: Agreed.

MR. BYRON WILLIAMS: Under Option 2, we see no rate increases up until year 5, and then rate increases escalating at 3 percent per annum up to year 10, agreed?

MS. LIZ CARRIERE: Yes.

MR. BYRON WILLIAMS: And Ms. Carriere, you'll agree that if we looked at these options through the metric of cumulative rate increase, and focussing on year 10, the cumulative rate increase for Option 1 would be 16 percent, agreed?

MS. LIZ CARRIERE: I would --

MR. BYRON WILLIAMS: And that --

MS. LIZ CARRIERE: -- agree.

MR. BYRON WILLIAMS: And likewise, the cumulative rate increase for Option 2 would be 16 percent, agreed?

MS. LIZ CARRIERE: Agreed.

MR. BYRON WILLIAMS: And if we also took a snapshot at year 10, we would have the -- the ratepayer paying the same amount under either Option 1 or Option 2, being one thousand six hundred and twenty-three dollars ($1,623), agreed?

MS. LIZ CARRIERE: Agreed.

MR. BYRON WILLIAMS: Now, I'll -- I'll direct your attention towards the bottom of this hypothetical, and you'll agree with me when we look -- focus our attention on the total bill payments line, that notwithstanding the fact that the cumulative rate increase was the same under Option 1 and Option 2, the nominal bill payments were higher under Option 1.

Would that be fair, Ms. Carriere?

MS. LIZ CARRIERE: That's true.

MR. BYRON WILLIAMS: And if we move from the nominal value of the bill payments to the account -- accounting for the time value preference of customers, and assuming a discount rate of 5 percent for -- per annum, we would also find that the net present value of the bill payments under Option 1 would be higher than under Option 2.

Would that be fair, Ms. Carriere?

MS. LIZ CARRIERE: That would be fair, but if -- if you've -- it depends on what your -- your objective is, is to maintain that cumulative rate increase at that point in time in year 10 of 16 percent. If, on the other hand, if you were to forego the 3 percent rate increases in the first five (5) years, to get to approximately the same level of retained earnings, which is what we -- how we typically set our rates, you'd actually need 9 percent rate increases for five (5) years in a row.

So that results in cumulative rates by year 10 of 52 percent, and total bills of, I think -- well, additional bills of -- of 2 billion, relative to the -- to the 700 million that you're suggesting in here.

MR. BYRON WILLIAMS: It sounds to me that you're -- you're moving beyond my hypothetical to -- to a -- to -- to a hydro, is that -- is that right, Ms. Carriere?

MS. LIZ CARRIERE: Well --

MR. BYRON WILLIAMS: It serves me right

for giving this to you too early.

MS. LIZ CARRIERE: But I --

MR. BYRON WILLIAMS: I'm just teasing you.

MS. LIZ CARRIERE: -- I'm just accounting for the compounding effects of foregoing those interest -- or the rate increases.

MR. BYRON WILLIAMS: Fair enough. Let's -- let's -- and -- and I appreciate that insight. One (1) additional thing we can learn from this hypothetical is that there are different insights we get from the metric of cumulative rate increases versus the metric of net present value, agreed?

MS. LIZ CARRIERE: Well, you can also compare the cumulative rates in each and every year, not just at one (1) -- at the end of the period.

MR. BYRON WILLIAMS: Fair enough, but my point that there are different insights from these different metrics, you -- you would not disagree with that?

MS. LIZ CARRIERE: No. I don't disagree with that.

(BRIEF PAUSE)

MR. BYRON WILLIAMS: If we could turn to CAC Exhibit 45-5, Tab 3, page 8?

(BRIEF PAUSE)

MR. BYRON WILLIAMS: So that's Tab 3, page 8 of CAC Exhibit 45-5. It should be an excerpt from the submission to the Manitoba Clean Environment, relating to the 'Need for and Alternatives to the Wuskwatim Project'. Mr. Rainkie, subject to your advice, I'm going to direct these questions to you, sir.

Is that fine?

MR. DARREN RAINKIE: We could start that way, I guess. I wasn't involved in this in any way, so we'll -- we'll start that way and we'll see where --

MR. BYRON WILLIAMS: Okay.

MR. DARREN RAINKIE: -- we go, Mr. Williams.

(BRIEF PAUSE)

MR. BYRON WILLIAMS: Mr. Rainkie, this is an excerpt from Hydro's submission to the Clean

Environment Commission on the Need for and Alternatives to the Wuskwatim Project, agreed?

MR. DARREN RAINKIE: That would be my understanding of what this is, yes.

MR. BYRON WILLIAMS: And, Mr. Rainkie, certainly based upon corporate history, you'll understand that the central issue in that proceeding, on the Need For an Alternative side, was whether Wuskwatim should be build in 2020, or whether there was an advantage of advancing its construction to 2009, agreed?

MS. LIZ CARRIERE: That's correct.

MR. BYRON WILLIAMS: Okay. And sorry, Mr. Rainkie. I -- I guess those should go to Ms. Carriere, and I apologize.

If we can to page 12 of CAC-45-5. And, Ms. Carriere, directing your attention to line 7, you'll see that in doing its evaluation of the impacts of advancement versus the reference case, Manitoba Hydro performed an analysis, both of potential cumulative percent customer rate benefits and of the present value of customer bill benefits, agreed?

MR. LIZ CARRIERE: Agreed.

MR. BYRON WILLIAMS: And if you flip to page 13, again, line 5 -- scroll down, please; thank you -- you'll see that the conclusion was that on a present value basis discounted back to 2002, the advancement of Wuskwatim could yield a cumulative reduction in customer bills of -- of a significant amount.

Do you see that, Ms. Carriere?

MS. LIZ CARRIERE: Yes, I can see that.

MR. BYRON WILLIAMS: And I wonder if by way of undertaking, the Corporation could please provide the discount rate employed in the Wuskwatim CEC proceeding used to yield the conclusion that the advancement led to a net present value of between 87 million and 216 million?

Would you be prepared to accept that undertaking, Ms. Carriere?

(BRIEF PAUSE)

MS. MARLA BOYD: Can you help me, Mr. Williams? I'm not sure how that helps with the current proceeding?

MR. BYRON WILLIAMS: Well, we heard a -- a lengthy exchange yesterday and throughout this Hearing in terms of the appropriate discount rate to be employed in evaluating ratepayer impacts.

And, certainly, one (1) relevant input to this would be Manitoba Hydro's past practice in assessing the net present value of ratepayer impacts.

MS. MARLA BOYD: I -- I think -- I can't commit for Mr. Wojczynski, but I expect that Mr. Wojczynski would be prepared to advise you as to the discount rate that was used. But I'm not sure that we need to go through the process of recalculating, on this record, the information that was given back in 2003.

If that's acceptable, we'll do it that way.

MR. BYRON WILLIAMS: Okay. So the undertaking would be to -- I'm not looking for the calculation, and if I was imprecise, I apologize. I'm looking for the discount rate employed and relied upon for the purposes of arriving at this conclusion.

MS. MARLA BOYD: And as I said, I can't speak for Mr. Wojczynski, but we'll certainly take it under advisement and take it back to him.

MR. BYRON WILLIAMS: And you'll advise us, Ms. Boyd, if he is declining?

MS. MARLA BOYD: Of course, yeah.

MR. BYRON WILLIAMS: I'm sure he won't.

CONTINUED BY MR. BYRON WILLIAMS:

MR. BYRON WILLIAMS: If we can turn to page 14 of CAC Exhibit 45-5, and Mr. Rainkie -- sorry -- and maybe this does go to you, Ms. Carriere, but Mr. Rainkie is my default person, so.

But what you'll see here is a projected operating statement from the Wuskwatim Clean Environment Commission proceeding.

Do you see that?

MS. LIZ CARRIERE: Yes.

MR. BYRON WILLIAMS: And if we explore in the top left-hand corner, this was based upon the expected in-service date for Wuskwatim of 2009, and it was based upon the low export price scenario, agreed?

MS. LIZ CARRIERE: Yes, that's what it says.

MR. BYRON WILLIAMS: And if we go down under, "Revenues," under, "Extraprovincial," and move all the way out to the 2014 year, you'll see that the Corporation was projecting, at the time that -- of the Wuskwatim NFAT, extrafro -- provincial revenues of 575 million for 2014, agreed?

MS. LIZ CARRIERE: Yes. Agreed.

MR. BYRON WILLIAMS: And 577 million for 2015, agreed?

MS. LIZ CARRIERE: Yes.

MR. BYRON WILLIAMS: And 599 million for 2016, agreed?

MS. LIZ CARRIERE: Agreed.

MR. BYRON WILLIAMS: And finally, for 2017, 588 million, correct?

MS. LIZ CARRIERE: Yes.

MR. BYRON WILLIAMS: And that was under the Corporation's low export price scenario, agreed?

MS. LIZ CARRIERE: Agreed.

MR. BYRON WILLIAMS: Now, if we could turn to Hydro Exhibit 97, page 20?

(BRIEF PAUSE)

MR. BYRON WILLIAMS: And again, to Mr. Rainkie or Ms. Carriere, focussing again on those same years, we can see that the forecast extra -- extraprovincial revenue, now for 2014 is $408 million. Would that be correct?

MS. LIZ CARRIERE: That's correct.

MR. BYRON WILLIAMS: And for 2015, $383 million, agreed?

MS. LIZ CARRIERE: Yes.

MR. BYRON WILLIAMS: And for 2016, $362

million, correct?

MS. LIZ CARRIERE: Yes.

MR. BYRON WILLIAMS: And taking just that 2015 year as an example, you'll agree with me that back in -- in 2003, Manitoba Hydro was expecting that to be about $577 million. Would that be fair?

MS. LIZ CARRIERE: Yes.

MR. BYRON WILLIAMS: Okay. Now subject to check, would the Corporation agree that the actual extraprovincial revenue for the twenty (20) -- the year ended March 31st, 2013, is $353 million, based upon page 65 of the 2012/2013 annual report, Mr. Rainkie?

MR. DARREN RAINKIE: Yes, Mr. Williams, $353 million.

MR. BYRON WILLIAMS: And that would be about $220 million lower than the $577 million forecast at the time of the Wuskwatim CEC proceeding, sir, subject to check? Or I can take you right back there, if you'd like.

MR. DARREN RAINKIE: You're just look -- yeah, you're looking at the difference between the five seventy seven (557) and the three fifty three (353), correct?

MR. BYRON WILLIAMS: Mr. Rainkie, I'm suggesting to you that if we compare what was forecast in 2003, being 577 million, with the actual for the 2013 year of 353 million, the difference is $220 million. Would that be fair?

MR. DARREN RAINKIE: That's fair.

MR. BYRON WILLIAMS: Mr. Chair, I'm moving through pretty rapidly today, and so for the benefits of those coming behind me, unless we end up in a scrap, which we never know, but I -- I don't expect I will be -- I -- I'll -- I'll certainly take us probably to three o'clock, but I'm not sure how much longer I'll take.

I don't know if -- if now is a good time for a break. Yeah.

THE CHAIRPERSON: I have one (1) question I want -- I'd like to address, and it's probably an appropriate time to do it now. I wonder if we could go back to -- to page 35 of 45-5, and -- in relation to sunk costs.

And we talked about the amortization expense by project. Has Manitoba Hydro provided data -- information regarding the related interest costs to this abandonment of -- of Keeyask and Conawapa, the tie-line?

In other words, this is only describing amort -- you know, the amortization of the -- the sunk costs, but there are related interest expenses associated with that investment. Is that part of this?

MS. LIZ CARRIERE: That is true. Once we stop capitalizing these costs, there will be an impact on interest. It will be -- it's embedded in -- in the cases that do not include those -- those -- these plants -- the Keeyask and Conawapa plants. It's embedded in the finance expense.

THE CHAIRPERSON: But in relation to this particular page, the adjust (sic) expense related to that -- to the sunk costs are not showing up on this page, are they? I mean, they --

MS. LIZ CARRIERE: Correct.

THE CHAIRPERSON: -- are they showing up anywhere? Can we see them anywhere else, or...?

MS. LIZ CARRIERE: No, I don't believe they've been provided separately. We would have to make an estimation, because it is embedded in finance expense.

THE CHAIRPERSON: Would you undertake to do that, please, just to -- based on a notional 75:25 percent equity basis, perhaps, just so that people understand the -- the cost of -- of picking an alternative that doesn't involve Conawapa, or Keeyask, or the tie-line?

(BRIEF PAUSE)

MS. LIZ CARRIERE: Can we combine that with the undertaking we were given earlier this morning?

THE CHAIRPERSON: Absolutely, yes.

(BRIEF PAUSE)

MS. LIZ CARRIERE: We -- in the undertaking from this morning we will include the interest costs associated with the sunk costs in the plans without facilities -- or Keeyask or Conawapa in them.

THE CHAIRPERSON: Mr. Williams, would fifteen (15) minutes do it, from your perspective?

MR. BYRON WILLIAMS: Absolutely, sir.

THE CHAIRPERSON: Okay. So let's reconvene at twenty-five (25) to -- to 3:00, please.

--- Upon recessing at 2:22 p.m.

--- Upon resuming at 2:43 p.m.

THE CHAIRPERSON: Mr. Williams, I believe that we're ready to resume the proceedings.

MS. MARLA BOYD: Could I just have one (1) minute before we do that?

THE CHAIRPERSON: Yes, please.

MS. MARLA BOYD: I left Mr. Simonsen a few treats over the -- the break.

First off, I guess I'll deal with the filing of Manitoba Hydro Exhibit 104-4. This is one (1) copy. It's the summary tables similar to those provided in Appendix 9.3 for Plans 1, 2, 4, 5, 8, and 14. It is -- it's pages of numbers.

So I've left two (2) copies with the Board secretary. I'm not sure that all of us are going to want copies of the paper. We'll provide it electronically, but I was just hoping to get a -- a sense from the room of how many people actually would like a paper version of -- of this. I warned them.

So I see one (1) hand over there from My Friend, Mr. Hacault. If you can just let me know. It doesn't need to be now, but perhaps at the end of the day and we'll make paper copies available and the electronic one will be posted as well.

The other -- sorry.

THE CHAIRPERSON: Thank you for that.

Anything else?

MS. MARLA BOYD: The other thing I'll just introduce so that I don't interrupt Mr. Williams's cross, is that we've had a discussion that comes out of Tab 7 of his book of documents, 45-5.

I've got that right?

MR. BYRON WILLIAMS: 45-6.

MS. MARLA BOYD: 45-6. So Mr. Williams has had a conversation with some of our witnesses, and we have a -- a more detailed schedule that's been prepared, and they'll speak to it as they come to it in the cross, but it could be marked as Manitoba Hydro Exhibit, I believe it would be 121.

That would be it, yes.

MR. KURT SIMONSEN: 121.

MS. MARLA BOYD: Thank you.

--- EXHIBIT NO. MH-121: A more detailed schedule re. CAC (Manitoba) book of documents, 54-6, Tab 7

MR. BYRON WILLIAMS: I'll just wait for it to be distributed, because Mr. Barnlund, I think will -- will want to refer to it when I'm having a discussion with him, so.

MS. MARLA BOYD: There are five (5) copies there for the Board, Mr. Simonsen. As well, there's two (2) for your -- your record.

(BRIEF PAUSE)

CONTINUED BY MR. BYRON WILLIAMS:

MR. BYRON WILLIAMS: Mr. Rainkie, you'll recall a discussion you had yesterday with My learned Friend Mr. Peters in which he -- in which you discussed the -- what he described as the whittling down of Hydro's plans for financial analysis. Do you remember that, sir?

MR. DARREN RAINKIE: Yes, the whittling down. Yes, Mr. Williams.

MR. BYRON WILLIAMS: I was surprised you agreed to that terminology. I prefer funnelling, but, you know, whatever works. But -- but just to go back to the basic facts, in the NFAT business case, Hydro provided a financial evaluation of eight (8) plans. Would that be correct, sir?

MR. DARREN RAINKIE: Eight (8) plans across twenty-seven (27) dimensions, yes.

MR. BYRON WILLIAMS: And the eight (8) plans were 1, 7 -- you -- you'll accept this subject to check, sir -- 1, 7, 2, 4, 13, 12, 6, and 14? You'll accept that, sir?

MR. DARREN RAINKIE: It's getting late in the day. You wore me down again, Mr. Williams, so yes, I'll accept that.

MR. BYRON WILLIAMS: No, it was Mr. Peters who wore you down. I'm trying to lift you up, sir.

And you'll recall as -- as well in Hydro Exhibit 90, the Corporation outlined plans for further evaluation, Mr. Rainkie?

MR. DARREN RAINKIE: That's the DSM alternatives and the capital cost changes, Mr. Williams?

MR. BYRON WILLIAMS: That's right, Mr. Rainkie. So you're agreeing with me that you outlined plans to do further evaluation of a --

MR. DARREN RAINKIE: Yes, I agree with you.

MR. BYRON WILLIAMS: And the plans that you intended to provide further evaluation on, at least as I can understand it, are Plan 1, Plan 14, and the revised Plan 5. Is that correct, sir?

(BRIEF PAUSE)

MS. LIZ CARRIERE: Yes, that's correct.

MR. BYRON WILLIAMS: So that would suggest of the eight (8) evaluated in the business case, the only two (2) remaining for evaluation are Plan 1 and Plan 14, agreed?

MS. LIZ CARRIERE: Agreed.

MR. BYRON WILLIAMS: So in the material we will receive over the next few weeks, there will be no additional financial evaluation of Plan 2, correct?

MS. LIZ CARRIERE: Correct.

MR. BYRON WILLIAMS: There will be no additional financial evaluation of Plan 4, agreed?

MS. LIZ CARRIERE: Agreed. As I said yesterday, I understand that that's no longer a viable option.

MR. BYRON WILLIAMS: And it's Hydro's position that it's no longer a viable option because it's negotiated itself out of that option. Is that right?

MS. LIZ CARRIERE: I am not the expert on that, so I can't confirm --

MR. BYRON WILLIAMS: Okay.

MS. LIZ CARRIERE: -- or deny that.

MR. BYRON WILLIAMS: So you're in no position to comment on -- upon whether it's a selfinflicted hypothetical?

MS. MARLA BOYD: That evidence has been given by the previous panel, Mr. Williams.

CONTINUED BY MR. BYRON WILLIAMS:

MR. BYRON WILLIAMS: And also in the evidence to come, there is no evaluation of Plan 6, agreed?

MS. LIZ CARRIERE: Agreed.

MR. BYRON WILLIAMS: So for parties wishing to evaluate the financial implications of Hydro Plan -- of Hydro's Preferred Plan against what they consider to be comparative alternatives, the Corporation does not intend to prod -- produce financial evaluations of 2, 4, and 6, correct?

MS. LIZ CARRIERE: That's correct.

(BRIEF PAUSE)

MR. BYRON WILLIAMS: Mr. Rainkie, you may have discussed this with Mr. Peters yesterday, and if so, you've worn me down so I've forgotten. But did Hydro seek the input from the independent experts in terms of which plans to present for updated financial evaluation?

MR. DARREN RAINKIE: Sorry, which inde -- there's a -- which independent experts --

MR. BYRON WILLIAMS: Well, Morrison Park or any of those?

MR. DARREN RAINKIE: Well, given that they came on the scene after we made the filing, no, Mr. Williams.

MR. BYRON WILLIAMS: Sorry, Mr. Rainkie, I'm speaking of the updated DSM scenario evaluations that Hydro is undertaking, in deciding whether to -- which plans to evaluate. And restricting that to plan 14, Plan 1, and the hybrid Plan 5, did Hydro seek the advice of the independent consultants on -- on that decision?

MR. DARREN RAINKIE: I think Mr. Wojczynski would have to answer that question, Mr. Williams.

MR. BYRON WILLIAMS: Okay.

MR. DARREN RAINKIE: We could -- we could find the answer to that, if you'd like?

MR. BYRON WILLIAMS: I don't think I'm -- Mr. Rainkie, I don't think I'm going to ask for an undertaking. You can report back, or otherwise I will take it up with Mr. Wojczynski at a future date. So for the reporter's purposes there is no undertaking.

But, Mr. Rainkie, now that I've made that concession in terms of undertakings, will the Corporation consider, by way of undertaking, providing an updated evaluation of either Plan 2 or Plan 6?

MR. DARREN RAINKIE: Mr. Williams, I think I -- I would have to -- to take that away. I mean, here's the thing. There's a practical consideration here in terms of being able to deliver the material that has currently been asked in a -- in a timely basis in order to keep the Hearing moving forward in a productive -- in a productive manner, so we would have to -- I'd have to consult with our -- you know, Mr. Wojczynski is -- in terms of the overall case manager, and our legal counsel in terms of -- something has to give.

Like if -- if we're going to throw two (2) more on then what's -- what's coming off the list that was deemed to be important last week, you know. Not to be mean about it, but I -- I think that's where we're kind of at in the next week or so. And when is that material coming, and -- in terms of all the various panels, so I think we'd have to think about that and get back to you.

MR. BYRON WILLIAMS: Fair enough, Mr. Rainkie. Do you know when you'll be able to get back to our client on that? The next couple days?

MR. DARREN RAINKIE: I would think so, Mr. Williams.

MR. BYRON WILLIAMS: Okay.

MR. DARREN RAINKIE: Sorry, just to be clear, which plan -- plans was -- plan --

MR. BYRON WILLIAMS: Look, we're really interested in 2, 4, and 6, but the two (2) I said were Plan 2 and Plan 6.

MR. DARREN RAINKIE: Okay. Thanks.

(BRIEF PAUSE)

MR. BYRON WILLIAMS: Mr. Rainkie, we've already established that you are a reasonable person, agreed?

MR. DARREN RAINKIE: I hope so. And I like Mr. Peters's tie, by the way.

MR. BYRON WILLIAMS: And you would agree that reasonable people can disagree?

MR. DARREN RAINKIE: Yes, that's a large part of what these hearings are about: different perspectives for the panel.

MR. BYRON WILLIAMS: And notwithstanding your affection for Mr. Peters's tie, you became quite engaged yesterday in your discussion with him in terms of potential discount rates to assess the time value of money from the ratepayer perspective.

Would that be fair?

MR. DARREN RAINKIE: Yes, I -- I guess I don't get enough of this stuff anymore at the executive level, so it's still of interest to me. And -- and I suppose why it's of interest to -- to me is more than the technical discussion, but trying to understand what that means, particularly when you have -- trying to understand what really high discount rate means, in terms of intergenerational and equity considerations, is a big concern for me.

Whenever you're doing financial analysis, you have to pull your head up from the computer every once in a while and say: What am I doing and why? And if I make this assumption, even if it seems technically correct or there's -- or there's some argument for it technically, am I doing something that makes the analysis not make sense any longer?

And -- and --

MR. BYRON WILLIAMS: Okay.

MR. DARREN RAINKIE: -- I think that's where I was trying to come at.

MR. BYRON WILLIAMS: And fair enough,

Mr. Rainkie. And without trying to revisit much of the debate of yesterday, you'll agree that there appears to be a variety of perspectives on the record in terms of the appropriate discount rate for assessing ratepayer impacts? That would be fair?

MR. DARREN RAINKIE: Yes. Between all the parties, yes.

MR. BYRON WILLIAMS: And even, sir, not just between the parties, but within the academic literature, you would agree that there is considerable and divergent academic literature in terms of the question of an appropriate discount rate? Agreed?

MR. DARREN RAINKIE: Yes, I -- I can't profess that I read all of it, Mr. Williams, but, yes, I mean, these things are a matter of professional judgment, I suppose.

MR. BYRON WILLIAMS: And just for a moment, sir, if -- and for the -- if we could pull up Manitoba Hydro Exhibit 111, slide 8, please.

(BRIEF PAUSE)

MR. BYRON WILLIAMS: Mr. Rainkie, you told us yesterday that this was an important exhibit, and I -- I took you at your word. Slide 8, yeah.

MR. DARREN RAINKIE: Yes, I think it provides an interesting perspective.

MR. BYRON WILLIAMS: And, Mr. Rainkie, when we look at Hydro's revenues, and I want to focus on the domestic revenues, we can see that roughly 28 percent of overall revenues came from residential ratepayers.

Is that correct, sir --

MR. DARREN RAINKIE: Yes --

MR. BYRON WILLIAMS: -- for --

MR. DARREN RAINKIE: -- during this time frame.

MR. BYRON WILLIAMS: Yeah. And within this time frame roughly 40 percent came from industrial commercial.

Would that be fair, sir? Within this time frame.

MR. DARREN RAINKIE: That's fair.

MR. BYRON WILLIAMS: So, Mr. Rainkie, when we speak of the ratepayer perspective, we must agree -- or you would agree with -- you would agree that we must consider different segments of the ratepayer interest, correct?

MR. DARREN RAINKIE: I'm sure that each particular Intervenor will bring their own flavour to the discussion, Mr. Williams. Whether that difference of opinion wins the day or not is, I guess, the argument.

MR. BYRON WILLIAMS: And certainly within the broad family of domestic ratepayers for Manitoba Hydro, one (1) element of that perspective would be residential customers, sir, agreed?

MR. DARREN RAINKIE: Certainly.

MR. BYRON WILLIAMS: And another might be large industrials, such as the ones My Friend, Mr. Hacault, represents? That would be another perspective?

MR. DARREN RAINKIE: The very fact that both customer groups are represented at the table, would say yes, Mr. Williams.

MR. BYRON WILLIAMS: And certainly you're familiar with past general rate applications where large municipalities, such as the City of Winnipeg, have appeared and offered their perspective.

Is that right, sir?

MR. DARREN RAINKIE: Yes. I've been less involved personally in those in the past, but I'm -- I think that will change over time. But, yes, sir.

MR. BYRON WILLIAMS: And again, apart from Mr. Hacault's clients, we could distinguish between the perspective of large industrials and perhaps small businesses, agreed?

MR. DARREN RAINKIE: Yes. I -- I wouldn't look at the business community as having just one (1) -- one (1) constant interest. Depending on your size and scale and scope, you might have different views of the world.

MR. BYRON WILLIAMS: And certainly when we look at ratepayer impacts and the time value of money and discounts, it is conceivable, sir, that those dispe -- distinct classes or groups of ratepayers may bring different perspectives to the appropriate discount rate?

Would that be fair?

MR. DARREN RAINKIE: They may bring different perspectives, but the difficulty is, is that you can't have ten (10) different discount rates in play. You know, it's -- particularly -- and I'm not going to profess to be an expert in this area. Perhaps some of our witnesses on the next panel are -- are better to go into this.

But one (1) of the difficulties in assessing intergenerational considerations through discount rates is the broad group of people that you have out there. So you might have somebody that's fairly affluent that, you know, has investments. You might have somebody that is on the lower income end of the scale and has loans that are at significant rates or, you know, has credit card debt that's at significant rates. You will have different tax rates of individuals.

So that -- that becomes some of the -- as you go through the literature, some of the complicating factors in trying to boil down to a discount rate, is -- is what is it, like whose perspective is it?

You -- we have five hundred and sixty thousand (560,000) customers, so, you know, you have to have some practicality in terms of getting down to a discount rate. I don't think you can have a hundred of them, you know, or -- or you can't have five hundred and seventy thousand (570,000) for sure.

MR. BYRON WILLIAMS: Absolutely, sir. And we'll come to a couple of those examples you used in just a moment. But before we jump to the residential ratepayers, you will agree with me that it -- it is -- we might expect that the different interests that we enunciated, being residential, large industrial, commercial, and large municipalities, may have different perspectives on the time value of money, sir?

MR. DARREN RAINKIE: They might. I mean, there is a -- a line in the literature that I've read anyway that says that perhaps the best way to look at that -- at this is the end-consumer, because of the difficulties of specifying, you know, different -- different interests all over the map.

So while they each might have their own thought process, there is a -- to solve the practical problem you can't have hundreds of thousands of discount rates, there is literature out there that says perhaps you could just assume the end-user in terms of, you know, how you calculate the rate. Assuming that the goods and services that are produced by a business ultimately go to the -- to the end-consumer.

MR. BYRON WILLIAMS: But in the end business is an end-consumer as well, sir, agreed?

MR. DARREN RAINKIE: Sorry, sir, I didn't hear that?

MR. BYRON WILLIAMS: In the end, when it comes to electricity, business and large industrials are end -consumers, agreed?

MR. DARREN RAINKIE: Yes. I think this theory was more the -- the end-consumption being the product that those -- those businesses are producing being used in the hands of individuals.

MR. BYRON WILLIAMS: Now, sir, you -- you mentioned you had a bit of a discussion of residential ratepayers, and -- and you used the example -- one (1) of them being a -- those who are credit constrained.

Do you recall that, sir? Or you talked about lower-income people.

MR. DARREN RAINKIE: Well, I'm not trying to generalize, Mr. Williams, but I'm just saying you could have a -- a number of different circumstances out there and what's the appropriate one? Everybody would -- every individual would look at it a little differently, and I am not sure how you would ever come to any kind of a -- a reasonable agreement on it.

I mean, I was also talking about it from a policy perspective, I suppose. Once again, trying to get out of the technicalities for second and think about this from a broad perspective, that I don't think of Manitoba Hydro as a financial institution where we're -- we -- we provide vital public infrastructure at a reasonable cost, the customers pay the bill, everybody's happy. I'm not sure that we should be looking at resource options that provide 21 percent rates of return for -- for individuals.

I -- I've never in my wildest dream -- at a 10 percent discount rate, weighted 25:75, the imputed cost of equity would be 21 percent, thinking about the 10 percent discounts rates that are on the record here if you backed into the calculation. I would never in my wildest dream have thought of -- that I would have to, you know, in a -- in a vital public service apply -- apply that discount rate. In fact, I -- I think many constituents should be concerned if we would apply those types of discount rates, because the projects that they want may not look very favourable if we start applying those types of discount rates.

So my caution to all involved would be to be careful.

MR. BYRON WILLIAMS: Now, sir -- and again, I -- you've had an extended discussion with Mr. Peters, so I'm going to try and restrict you a -- a little bit, but it is a free country. You'd agree, certainly, that it's conceivable that those who are -- who believe they are credit constrained, they put a different value on future dollars than those who are robust savers?

Would that be fair, sir?

MR. DARREN RAINKIE: Certainly individually, but we still have to look at what we're doing ,and -- and how -- what -- what the calculation is, and -- and what we're applying the discount to, which is another part of the argument. I won't go over that again, but...

MR. BYRON WILLIAMS: Okay. And -- and certainly you mentioned individually, but you'll agree that there is a robust academic literature on the -- that very subject of examining the -- the -- those who are credit constrained, sir?

MR. DARREN RAINKIE: Mr. Williams, I -- I haven't read that particular lett -- literature. I -- I said the -- the literature that I have read tended to go more to being careful and looking at very low discount rates when considering intergenerational considerations. Because if you don't, what you're really saying, all the technicalities aside, is that I really don't value what happens in year 20, 30, and 40, because mathematically the discount rate is so low by that point it doesn't really matter, and you're simply valuing the -- you know, the current customer. That's all you're taking into consideration, so.

MR. BYRON WILLIAMS: Now, Mr. Rainkie, just one (1) further example. You'd agree with me that it's conceivable that repa -- retired persons living on pensions may place a different value on future dollars than young persons just starting out in the -- the workforce, and whose best earning years lie ahead of them?

MR. DARREN RAINKIE: Mr. Williams, I think I've already agreed that a -- that there would be five hundred and seventy thousand (570,000) different perspectives on this.

You know, each customer, slightly different personal circumstance, but how that relates to the -- the literature in terms of how to apply this practically is a different story.

I mean, you can list a hundred different circumstances and I'll agree with you that each individual might look at it differently, but I'm not sure that in the -- from a practical perspective of coming back and trying to put a fair view on the record for the Board, that that is going to help us.

MR. BYRON WILLIAMS: Now, Mr. -- this can go to either Mr. Rainkie or Mr. Barnlund. In the Corporation, in -- in the -- in the course of its work, it, of course, regularly conducts surveys and focus groups. Would that be fair?

MR. DARREN RAINKIE: Yes, Mr. Williams.

MR. BYRON WILLIAMS: And in the course of your surveys or focus groups, I take it the

Corporation would examine ratepayers' perceptions of different rate impacts. Would that be accurate?

MR. DARREN RAINKIE: Yes. I mean, it's usually statistical sampling and, so, we don't get down to the individual level. It's usually, you know, rolled up in some metric, like, you know, seven (7) out of ten (10), for instance, Mr. Williams, if I'm with you on your terms of what you're asking me.

MR. BYRON WILLIAMS: Well, maybe just to finish things off, I'm just going to turn to CAC Exhibit 45-6, page 10, and Mr. Barnlund, this is your moment to shine, sir.

First of all, what -- you'll agree with me that is what is attempted to be portrayed here is the average annual bill increases for four (4) plans based upon the ref/ref/ref assumptions? Would that be fair, sir?

MR. GREG BARNLUND: Yes, as I understand it. I believe that this represents a calculation of the annual bill change in ten (10) year periods, which is then divided by ten (10) to come out with an average change per period.

MR. BYRON WILLIAMS: And you'll agree with me, sir, as you understand this table, it is focussing on the electric heat customer, and based on an assumption of average annual use of 25,383 kilowatt hours per year? Would that be fair?

MR. GREG BARNLUND: Yes, I think so.

MR. BYRON WILLIAMS: And Hydro has had the opportunity to review this information, and you -- it would be fair to say you do not take issue with the mathematics of the calculation, sir?

MR. GREG BARNLUND: We've taken a look at that and calculated similar information, and that would be what's indicated, or was provided to the Board in Manitoba Hydro Exhibit 121.

The only, I guess, number that I have that's somewhat different from yours, or that is in -- on page 10 here, would relate to Plan 6, and I've got a slightly different value that's been calculated for 2023 and 2033 for Plan 6.

MR. BYRON WILLIAMS: Would you mind sharing that, sir -- sir?

MR. GREG BARNLUND: Yes, 2023, the number that I had for Plan 6 was two seven six one (2761) -- two thousand, seven hundred and sixty-one dollars ($2,761).

At 2033, the number was -- that we had arrived at was three zero zero eight (3008). Otherwise, we would be in agreement with the numbers that are on schedule on page 10.

MR. BYRON WILLIAMS: Okay. Now, sir, just -- and these are based on the ref/ref/ref assumption, sir?

MR. GREG BARNLUND: Yes, that's correct, and those same assumptions were shown in Manitoba Hydro Exhibit 111, page 29, which was the chart that showed the monthly bills, and so, this table is really looking at annual bills and, of course, in the chart -- so the period of time in this schedule on page 10 looks at 2023 and 2033, and that's, you know, on the left-hand side of the chart of our -- of our presentation on page 29.

MR. BYRON WILLIAMS: Okay. Thank you for that. And also found at page 12 of CAC Exhibit 45-6 is a -- is a -- a -- an additional calculation, Mr. Barnlund, which is based upon the ref/ref/high capital for electric heat customers, agreed?

MR. GREG BARNLUND: Yes. I -- I understand that to be the case. I didn't have the exact data to work through this, but it appears to be consistent with what we're talking about, and subject to a check, I would accept that.

MR. BYRON WILLIAMS: And where your -- your institution and -- and my client disagree, sir, is that our client suggests that consumers are much more focussed on the next day, next year, next ten (10) years, next twenty (20) years, and they put less credence into the -- in the next fifty (50) years, whereas Manitoba Hydro, in Exhibit 121, is presenting its perspective of rate impacts over the next fifty (50) years based upon those ten (10) year increments. Would that be fair, sir?

MR. GREG BARNLUND: Well, I'm -- I -- I'm not sure where we agree and disagree specifically, but the information that's in one twenty-one (121) is being presented consistently with the rest of the case that we have here, and looks over that full span to the end of 2063.

MR. BYRON WILLIAMS: Okay. And -- and certainly, if -- if the -- if we can put up one twenty-one (121) for just a moment? Mr. Barnlund, just to be -- to be clear, here, this is not a net present value calculation. Would that be fair?

MR. GREG BARNLUND: That's correct, it is not.

MR. BYRON WILLIAMS: Okay. And it does not include Plan 4. Would that be fair?

MR. GREG BARNLUND: That's correct, because I believe that was the 250 megawatt plan that's been discarded.

MR. BYRON WILLIAMS: And we'll -- yeah, it -- it's a sore point so we won't pursue it apart from -- apart from that. And, sir, it reflects, and it is subject to all the uncertainties that extend out over fifty (50) years, would that be fair?

MR. GREG BARNLUND: I would agree. I mean, this is a very simplified model that is looking at taking the information, and basically taking present bills and projecting them into the future based on the percentages that have been contained within these materials filed this -- with this application.

MR. BYRON WILLIAMS: And I don't mean to be critical, because we do appreciate your cooperation. Recognizing the significant uncertainties as we look out fifty (50) years, I -- I draw to your attention the projected residential annual total bill for Plans 14 versus Plan 6 in the extreme right-hand side, sir, at 2063. Do you see that?

MR. GREG BARNLUND: Yes, I have that.

MR. BYRON WILLIAMS: And even this simplified analysis, with all its uncertainty, suggests that looking out that point in time, that Plan 6 appears relatively competitive with Plan 14 all that way out. Is that fair, sir?

MR. GREG BARNLUND: They are very close. I think the comparison is almost -- well, seventy dollars ($70) or -- or less.

MR. BYRON WILLIAMS: Okay. At that length of time, being fifty (50) years, and at that magnitude of difference, the difference is insignificant. Would that be fair, sir?

MR. GREG BARNLUND: It is projecting it a long ways into the future, and given the small difference, I'm not sure that there could be much judgment that's made on that respect.

MR. BYRON WILLIAMS: Mr. Rainkie, as you reflect upon your undertaking -- or the -- the request for an undertaking, I -- I would ask you, certainly, to share with Mr. Wojczynski that even based upon Hydro-121, the -- the relative relationship between Plan 4 and 6, you'll -- you'll take -- or Plan 14 and 6, you'll take that into account, sir?

MR. DARREN RAINKIE: Yes, and the practical implications of how we continue this hearing, given the end date that's been specified by the province of Manitoba.

MR. BYRON WILLIAMS: Yeah -- yeah. Can you talk -- talk to the government, Mr. Rainkie?

MR. DARREN RAINKIE: No, I can't.

MR. BYRON WILLIAMS: I'm not allowed either. Mr. Chair, there -- Manitoba Hydro, I believe, will get back to us, not with some undertakings, but with their responses to my requests for undertakings, and I guess there is the one (1) matter relating to the discount rate for Wuskwatim that -- that is an under -- undertaking.

So subject to the new material that will appear over the next two (2) or three (3) weeks, and subject to either the undertakings or our requests for undertakings, that closes our cross-examination, and we thank the Hydro panel.

THE CHAIRPERSON: Thank you, Mr. Williams. I will now turn the microphone over to Mr. Gange, please.

MR. WILLIAM GANGE: Thank you, Mr. Chair. I -- I believe that I will be less than five (5) minutes. I just have a couple of questions.

CROSS-EXAMINATION BY MR. WILLIAM GANGE:

MR. WILLIAM GANGE: If we could go to Exhibit 118?

(BRIEF PAUSE)

MR. WILLIAM GANGE: Mr. Barnlund, this -- this was a document that was provided pursuant to a request, I believe, by the Board, to add North Dakota, Minnesota, and Wisconsin. Is that correct?

MR. GREG BARNLUND: Yes, that's correct.

MR. WILLIAM GANGE: So the -- it -- it shows the ten (10) lowest territories in North America with the addition of the -- the states that are the most likely targets for Manitoba Hydro exports.

Is that correct, sir?

MR. GREG BARNLUND: Yes, that's correct. The undertaking from the Chair was to provide the rates for North Dakota, Minnesota, and Wisconsin, and we thought that it was probably just most expeditious to include it in this material which had already been filed --

MR. WILLIAM GANGE: Yes.

MR. GREG BARNLUND: -- in this proceeding.

MR. WILLIAM GANGE: Thank you. And the state of Illinois, am I correct, it's not part of MISO?

MR. GREG BARNLUND: I'm sorry, Mr. Gange, I -- I --

MR. WILLIAM GANGE: I've got the wrong

guy?

MR. GREG BARNLUND: Yeah.

MR. WILLIAM GANGE: Okay, that's fine. But -- well -- well, you know what, if -- if you can't tell me about Illinois, you're not going to be tell -- able to tell me about any others. That's fine.

The -- the three (3) jurisdictions, though, that -- that you -- that -- that Mr. Cormie has identified as most likely targets for power sales in the United States are all significantly higher in this chart than the ten (10) lowest territories. Is that correct, sir?

MR. GREG BARNLUND: Yes. They appear to be, I would say -- well, North Dakota being one (1) -- one (1) cent higher than the others, but Minnesota and Wisconsin are considerably higher than the rest.

MR. WILLIAM GANGE: Thank you. I wonder if I could go to Manitoba Hydro Exhibit 111 and page 11?

(BRIEF PAUSE)

MR. WILLIAM GANGE: Page 11. Thank you. The third bullet. Mr. Carriere, the -- the comment is made that:

"Increased capital costs of 1.6 billion, due to Conawapa deferral reinstatement of DSM costs into capital foreco -- forecast and project estimate updates."

The -- the issue of reinst -- of -- of the reinstatement of DSM costs into the capital forecast, does that rate to -- does that relate to changes in the IFRS?

MR. DARREN RAINKIE: Mr. Gange, maybe I can -- I can take that one, although --

MR. WILLIAM GANGE: Thank you, Mr. Rainkie.

MR. DARREN RAINKIE: -- Ms. Carriere could have answered that. I talked to this slide, so perhaps I'll speak to it. Yes, it does. In the previous forecast, IFF12, we had assumed that IFRS would be implemented in 2014/'15, and at that point, all rate regulated assets.

Of course, the primary rate regulated asset is the deferral of Power Smart costs and amortization over ten (10) years, the -- the assumption in IFF12 that those would be -- would have to be expensed thereafter, and the rate regulated asset written off.

Now that we have an interim standard that allows us to at least transition to IFRS under rate regulated accounting, in the IFF13, we have assumed that rate regulated accounting will continue over the whole forecast period, and then we'll be able to continue to defer Power Smart costs and amortize them over ten (10) years.

The one (1) caution in my discussion with Mr. Peters yesterday was that somewhere in the next, probably two (2) to four (4) years, we expect the International Accounting Standard's Board to make up its mind on this whole issue, and we're not sure which way that's going to go at this point.

MR. WILLIAM GANGE: Thank you. So for those of us who don't speak accounting, is -- is it fair to say that this is -- it -- it's not a real cost charge? It's -- it's an accounting allocation?

MR. DARREN RAINKIE: That's right. The -- the cash flow -- when we spend money on Power Smart, it's cash out the door, just like any -- any project. It -- it's simply the -- the fact that now that it's assumed to be deferred and amortized, it's back in the capital forecast, but it doesn't affect our cash flow.

MR. WILLIAM GANGE: Thank you. And if we could go to page 29 of that same exhibit? Mr.

Rainkie, maybe this is yours as well. What I don't understand is why the slope on this graph from 2023 to 2033 changes. If there are expected to be constant rate increases, why is it that for the first ten (10) years, the slope is at one (1) angle, and then it -- and then it -- it changes during that next ten (10) year time period? Shouldn't it just be a straight line?

(BRIEF PAUSE)

MR. DARREN RAINKIE: You know, Mr. Gange, I -- I'm not sure I'd know the answer to that. I'm not sure if Mr. Barnlund could offer some insight into that one. Your -- your point's a valid one. We could -- we could take a look at that.

MR. WILLIAM GANGE: Okay, because if -- if you could take an undertaking and -- and advise me what the reason is for the change in the slope of the graph on page 29 of Manitoba Hydro Exhibit 111 for the years 2023 to 2033. That would -- that would be perfect for me.

--- UNDERTAKING NO. 50: Manitoba Hydro to indicate what the reason is for the

change in the slope of the
graph on page 29 of
Manitoba Hydro Exhibit 111
for the years 2023 to 2033

MR. WILLIAM GANGE: And those are my questions. Thank you, Mr. Chair.

THE CHAIRPERSON: Thank you, Mr. Gange. I will turn the microphone over to -- to Me. Hacault, s'il vous plait.

MR. ANTOINE HACAULT: My suggestion, members of the panel, given that we've got two (2) extra days, there's some questions that Mr. Williams asked which were, to a certain extent, duplicative, and I would like to have a chance tonight to go through my list of questions and make sure that I don't -- to the extent possible, avoid any overlap.

The second issue is based on the schedule. We had just planned to have all our copies of our book of documents for tomorrow morning. Well, distributed tonight for tomorrow, and so, we don't have -- have that document book available for the parties right now. We have two (2) days left. And I think, apart from myself, I spoke to Christian Monnin, or -- and he believes that he may be half an hour to an hour, so that it appears that we'd have plenty of time, if -- if that's okay. And I have a doctor's appointment, so that's a good excuse to leave early.

THE CHAIRPERSON: Mr. Weinstein...?

MR. MICHAEL WEINSTEIN: Mr. Chair, I did speak with Mr. Hacault earlier, but I've since spoken with Mr. Monnin. I think that he may be longer than originally anticipated, so I don't want the -- the panel to be under the impression that he may be that short. He -- we are allotted a half day, and I don't know that he'll be a half day, but he could be a couple hours, so I just want to make sure that -- that you're apprised of that information before we look ahead to the schedule.

MR. BYRON WILLIAMS: Mr. -- Mr. Chair, if -- if I might?

THE CHAIRPERSON: Mr. Williams, please?

MR. BYRON WILLIAMS: Just -- I believe that the MMF has none, and we'll -- I'll invite Mr. Orle -- and I just wanted to say for Mr. Hacault, I probably misadvised his team, because I expected I would be a little longer today as -- as well, so.

THE CHAIRPERSON: Mr. Orle, were you -- are you planning to ask some questions to this panel?

MR. GEORGE ORLE: Mr. Chair, I -- I'm -

- if I'm going to ask any questions, they'll be limited to about fifteen (15) minutes, but I can't proceed now because, as you've noted, Mr. Anderson has not been able to attend here. He's busy trying to get drinking water to one (1) of the communities that it's urgent for.

And I would like to just go over with him what's -- what's gone through in the examinations done by -- by Mr. Williams before I conclude whether or not I'm going to ask any further questions, but it won't be longer than fifteen (15) minutes if I do.

THE CHAIRPERSON: Okay, I think I'm hearing that we will -- are in a position to adjourn for the -- for the day.

Mr. Peters, have you got any words of advice for the panel?

MR. BOB PETERS: 'Words of advice' would be a bit strong, Mr. Chairman, but what -- what I believe Mr. Hacault alluded to is that the finance panel is scheduled to be with us in the public finance panel evidence session all day tomorrow and all day on Monday.

And then there's also a CSI day scheduled for Tuesday with this panel. At this point in time, the CSI day is being examined as to whether any of that will be required, and I'm just waiting for a document from My Friend opposite who is helping prepare it.

So, at this point in time, it looks like there will not be a CSI day required with the finance panel, because of the -- based on the evidence that's been filed to date, and that would leave only Mr. Hacault, Mr. Monnin and Mr. Orle to ask questions of the panel.

If Mr. Hacault, Mr. Monnin and Mr. Orle can finish their questions tomorrow, whether we can complete it in a regular work day or whether we have to extend the hour slightly, there is a strong possibility that we will not need to sit on Monday in this Hearing.

On Tuesday, because we, at this time, don't expect to be going in -- in camera with this panel, the societal benefits panel of Manitoba Hydro would be moved from Wednesday forward to Tuesday to take advantage of that -- that day.

So my words of suggestion are that we take Mr. Hacault up on his offer to adjourn early today, we start at nine o'clock tomorrow morning with a view to having a better handle on whether or not we will require any further time from this panel on Monday or Tuesday, and we'll be in a position to notify the

Board of that probably closer to noon tomorrow.

THE CHAIRPERSON: The panel has already discussed this issue and concluded that we would prefer to work until we complete the questioning tomorrow, so that would free up some time for a consideration by the panel of the evidence that's been provided so far.

So with that, I think --

MS. MEGHAN MENZIES: Actually -- sorry.

THE CHAIRPERSON: I'm sorry?

MS. MEGHAN MENZIES: Before we close, would it be possible for CAC Manitoba to read in some exhibits -- the evidence that was submitted -- the socio-economic evidence that was submitted on Monday?

THE CHAIRPERSON: Yes, it would be. Please do, go ahead.

MS. MEGHAN MENZIES: So, first of all is the CAC Manitoba cover letter, which will be filed as Exhibit 46, and we'll present this all to Mr. Simonsen once it's read in.

--- EXHIBIT NO. CAC-46: CAC Manitoba cover letter

MS. MEGHAN MENZIES: And then the expert report of Marla Orenstein and Dr. Murray Lee will be filed as Exhibit 47.

--- EXHIBIT NO. CAC-47: Expert report of Marla Orenstein and Dr. Murray Lee

MS. MEGHAN MENZIES: The expert report of Dr. Jerry Buckland and Melanie -- and Dr. Melanie O'Gorman will be filed as Exhibit 48.

--- EXHIBIT NO. CAC-48: Export reports of Dr. Jerry Buckland and Dr. Melanie O'Gorman

MS. MEGHAN MENZIES: The biographies of Marla Orenstein, Dr. Murray Lee, Dr. Jerry Buckland and Dr. Melanie O'Gorman will be filed as Exhibit 49, and they're compiled in one (1) document.

--- EXHIBIT NO. CAC-49: Biographies of Marla Orenstein, Dr. Murray Lee, Dr. Jerry Buckland and Dr. Melanie O'Gorman

MS. MEGHAN MENZIES: And then the curriculum vitae of Marla Orenstein will be filed as Exhibit 50-1.

--- EXHIBIT NO. CAC 50-1: Curriculum vitae of Marla Orenstein

MS. MEGHAN MENZIES: The curriculum vitae of Dr. Murray Lee will be filed as Exhibit 50-2.

--- EXHIBIT NO. CAC 50-2: Curriculum vitae of Dr. Murray Lee

MS. MEGHAN MENZIES: The curriculum vitae of Dr. Jerry Buckland will be filed as Exhibit 50-3

--- EXHIBIT NO. CAC 50-3: Curriculum vitae of Dr. Jerry Buckland.

MS. MEGHAN MENZIES: And the curriculum vitae of Dr. Melanie O'Gorman will be filed as Exhibit 50-4.

--- EXHIBIT NO. CAC 50-4: Curriculum vitae of Dr. Melanie O'Gorman

MS. MEGHAN MENZIES: And that concludes the exhibits that we have to file today.

MS. MARLA BOYD: If I could just have a moment before we close as well. Sorry to pile on. The exhibit that we filed, Manitoba Hydro-121, I'm advised there's an error in the description of the plan numbers, so if you could just jot on your -- your copy, if you have it in front of you.

What's identified as Plan Number 6 is, in fact, Plan number 12, and what's identified -- sorry. I'll give you a minute. So Plan 6 is actually Plan 12, and Plan 5 is actually Plan 6.

And I might just also note for the Board, in discussing the schedule, that based on our conversations with Mr. Peters, we have made alternative flight arrangements for witnesses that are appearing with the socioeconomic panel beginning on Tuesday, so -- so we're certainly hopeful that we haven't done that in vain, and that that panel will commence on Tuesday.

MR. ANTOINE HACAULT: I -- I would continue the administrative matters, if -- if I'd be allowed? We had advised on the record that we would let Manitoba Hydro know which round of IRs we were withdrawing, and which ones we'd appreciate having responses to.

So we sent a -- an email on Tuesday of this week to counsel for Manitoba Hydro, indicating with respect to Round II IRs, we were no longer requesting responses to 3a and 'b', 4d, 6b and 'c', 7a and 'b', 18a, 20a, 22, 27a, 29, and 33, and that we were requesting a response with respect to a remaining five (5), being Round II under -- IRs number 2, 9, 16, 24, and 26.

So it was our hope that we'd be able to get answers to those sometime.

THE CHAIRPERSON: Manitoba wish to -- Manitoba Hydro wish to respond to that, please?

MS. MARLA BOYD: I -- I will, certainly. We did send that suggestion out to all of the Intervenors, and -- and the Board, and -- and others when we sent a filing of undertakings and -- it -- a filing of the information responses. I don't remember the exact date. It was late December or early January.

So we were certainly hoping for a direction before the hearing started, and, you know, the people that are here are working very hard on being here, and on answering undertakings, so we'll make our best efforts, but, you know, we're -- in our view, we're almost past the point of answering IRs. We're answering questions here in front of the panel.

THE CHAIRPERSON: Mr. Williams...?

MR. BYRON WILLIAMS: Mr. Chair, just in light of the correction to the typographical error on -- on 121, I -- I wonder if could be re-permitted to ask just a couple questions about that exhibit, sir?

THE CHAIRPERSON: Please, go ahead.

(BRIEF PAUSE)

CONTINUED CROSS-EXAMINATION BY MR. BYRON WILLIAMS:

MR. BYRON WILLIAMS: Mr. Barnlund, just -- let's just start to make sure I -- we're on the same page in -- in terms of num -- numbering. So under the subheading, "Projected Residential Annual Basic Charge," if I go to the left-hand side, what you call Plan 6 should actually be Plan 12? Is that correct, sir?

MR. GREG BARNLUND: Yes.

MR. BYRON WILLIAMS: And I see the changes there. And likewise, what you call Plan 5 should actually be called Plan 6?

MR. GREG BARNLUND: Yes, that would be the case.

MR. BYRON WILLIAMS: And I would make those changes to also the subheadings, "Projected Residential Annual Energy Charge," as well as, "Projected Residential Annual Total Bill?"

MR. GREG BARNLUND: That would be appropriate, yes.

MR. BYRON WILLIAMS: And if as we peer out through the opaque mists of -- of fifty (50) years, Mr. Barnlund, at -- to 2063, what we see are the plans that come out very close -- in terms of the projected residential annual total bill in that particular year would be Plan 14 and Plan 12, agreed?

MR. GREG BARNLUND: Yes, that would be correct.

MR. BYRON WILLIAMS: So our previous discussion on the record regarding the relevant -- the relative closeness of Plans 14 and Plan 6 was really a discussion in terms of Plan 14 and Plan 12, sir.

Is that correct?

MR. GREG BARNLUND: Yes, that's correct. And -- and as corrected, now there would be a significantly greater difference -- or there is a significantly greater difference between the results for Plan 16 and Plan 6 in 2063.

MR. BYRON WILLIAMS: And just so I understand, sir, though, that the figures that you have calculated for Plan 12 the -- being the projected residential annual total bill of three thousand eight hundred and sixty-nine (3,869) stands.

Is that right?

MR. GREG BARNLUND: yes. It was a labelling mistake.

MR. BYRON WILLIAMS: And if you can refresh my memory, sir, or others on the Hydro panel, does Plan 12 exclude the WPS sale?

MR. GREG BARNLUND: Yes, it does.

MR. BYRON WILLIAMS: Thank you.

THE CHAIRPERSON: Thank you, Mr. Williams. There being no apparent additional business, I will draw this session to a close. We will see each other again tomorrow morning at nine o'clock.

Thank you, everyone, and have a good evening.

(PANEL RETIRES)

--- Upon adjourning at 3:36 p.m.

Certified Correct,

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Cheryl Lavigne, Ms.

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