MANITOBA PUBLIC UTILITIES BOARD

Re: MANITOBA HYDRO'S APPLICATION
FOR APPROVAL OF NEW ELECTRICITY RATES
FOR 2010/11 AND 2011/12

Before Board Panel:
Graham Lane - Board Chairman
Robert Mayer, Q.C. - Board Member

HELD AT:
Public Utilities Board
400, 330 Portage Avenue
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Pages 8707 to 8955

APPEARANCES

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Patti Ramage		)Manitoba Hydro
Marla Boyd		)
Byron Williams		)CAC/MSOS
Myfanwy Bowman	(np)	)
Antoine Hacault		)MIPUG
Michael Anderson	(np)	)MKO
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--- Upon commencing at 9:31 a.m.

THE CHAIRPERSON: Okay. Good morning, everyone. We're here today for Manitoba Hydro's closing statements. I see some new material here, so, Ms. Ramage, do you want to mark some other material for the -- with exhibit numbers?

MS. PATTI RAMAGE: Yes. Just as some housekeeping matters, before we commence with our final submission, Manitoba Hydro has distributed this morning a revised response to PUB Manitoba Hydro Pre-ask 4. Mr. Warden had indicated on the record that there would be more information forthcoming, and so this is that information. It deals with alternate export pricing scenarios, and so we'd like that marked as Manitoba Hydro Exhibit 158.

THE CHAIRPERSON: Very good.

--- EXHIBIT NO. MH-158: Revised response to PUB Manitoba Hydro Pre-ask 4

MS. PATTI RAMAGE: And then, following forward, Manitoba Hydro has also distributed an outline of its closing comments, and we suggest the outline be marked as Manitoba Hydro Exhibit 159.

--- EXHIBIT NO. MH-159: Outline of Manitoba Hydro's closing comments

MS. PATTI RAMAGE: And just to make sure everyone is on their toes while we're doing final argument, we've distributed a book of documents and authorities. This we suggest be marked as Manitoba Hydro 160.

--- EXHIBIT NO. MH-160: Book of documents and authorities

MS. PATTI RAMAGE: And if -- just as a -- a note on this, when we carry forward, you'll notice Tab 1 is actually the Chairman's closing comments on June 9th. And throughout our argument we have gone through, and you'll see, numbered the various issues as you went through. And just for ease of reference, we'll be referring to Chairman's issue number. And that would just -- if you wanted to go back to the transcript to see it, is contained in Tab 1 to explain that document.

And then, before I turn it over to Ms. Southall, who has a few documents to put on the record, maybe if I could turn to Ms. Southall. Would you like to -- me to speak to the -- the subpoena right now or...

MS. ANITA SOUTHALL: What -- what I'll do perhaps is just enter these documents, and that'll be the basis for your response, I believe. Thank you, Ms. Ramage.

MR. ROBERT MAYER: Ms. Ramage, I'm looking at Tab 1, okay, and so those little numbers in the margins are the points --

MS. PATTI RAMAGE: Yeah, they're handwritten, and -- and circled. Just to -- if anyone is going, Why are they talking about this particular issue, it -- it will draw you back to -- to what the Chairman's comments were.

THE CHAIRPERSON: Sounds like it will be helpful. Thank you. Ms. Southall...?

MR. ROBERT MAYER: You -- you really have made Mr. Williams look like a bit -- bit of a piker with the documentation you've filled in support.

MS. PATTI RAMAGE: Could you define, "piker"?

MR. ROBERT MAYER: No.

THE CHAIRPERSON: Ms. Southall...?

MS. ANITA SOUTHALL: Thank you, Mr. Chairman. For the record, the Board, through myself as counsel, served Manitoba Hydro, and specifically Mr. Ken Tennenhouse, with a subpoena to produce documents

involving long-term export agreements of Manitoba Hydro.

That subpoena's dated July 4, 2011, was served July 5, 2011. We're seeking to mark that as the next PUB exhibit, and I believe it's PUB Exhibit 26.

--- EXHIBIT NO. PUB-26: Subpoena dated July 4, 2011

MS. ANITA SOUTHALL: We have a -- in response to the service of the subpoena, Mr. Tennenhouse of Manitoba Hydro sent a letter to the Public Utilities Board electronically, and by messenger, dated July 5, 2011. And we would ask that that be marked then as the next Manitoba Hydro exhibit, which I believe is Exhibit--

THE CHAIRPERSON: 161.

MS. ANITA SOUTHALL: -- 161, thank you, Mr. Chairman.

--- EXHIBIT NO. MH-161: Letter from Mr. Tennenhouse, dated July 5, 2011

MS. ANITA SOUTHALL: And finally, in response to Mr. Tennenhouse's letter, as counsel, we responded by an email letter of July 6, 2011 to Mr. Tennenhouse on behalf of the Board. That letter would please be marked as PUB Exhibit 27.

THE CHAIRPERSON: So be it.

MS. ANITA SOUTHALL: Thank you.

--- EXHIBIT NO. PUB-27: Letter to Mr. Tennenhouse from Board counsel, dated July 6, 2011

MS. ANITA SOUTHALL: I think now Ms. Ramage is in a position to comment on this matter further.

THE CHAIRPERSON: Mr. Singh, have you distributed those exhibits that Ms. Southall has just mentioned? Okay. We'd probably benefit from a hard copy as well. Thank you.

Ms. Ramage...?

MS. PATTI RAMAGE: So my -- my comments will be extremely brief because my comments are essentially a non-comment.

As the parties were made aware yesterday, on Tuesday during the final day of Intervenor submissions, Manitoba Hydro's general counsel was served with a subpoena requiring production of all export contracts with Minnesota Power, Wisconsin Power Service, and Northern States Power.

Both Ms. Boyd and myself have been

completely and totally immersed in preparing for final argument since Tuesday, and we simply aren't in a position to address the merits of the subpoena.

Recognizing though that the PUB will want this dealt with immediately, Mr. Tennenhouse retained Aikins to get started on this matter. And I understand Aikins has been in touch with Board counsel and they are preparing documents in response. They will need to be briefed, and a date for arguing the matter, we expect, will be settled upon at the first opportunity. That's -- that's our view of the matter.

So it wasn't our intention to deal with that specific issue today.

THE CHAIRPERSON: Very good. Do you want to begin with -- then with your closing statement?

MR. ANTOINE HACAULT: Mr. Chairman, I don't know then -- because MIPUG will have comments, it does have comments. Is it the Board's wish and direction that those comments be reserved and put off to the actual motion date?

THE CHAIRPERSON: Yes. Ms. -- Ms. Ramage...?

MS. PATTI RAMAGE: And if I could add, our expectation is that all of the Intervenors to the party will be served with anything related to this

matter. And that was one (1) of the considerations, is that Intervenors should be provided an opportunity to -- to think about this in order that they could provide their submissions.

MR. BYRON WILLIAMS: Mr. Chairman, if I could indicate, we've -- we've, late last night and early this morning, canvassed this issue with our client. And we do have a -- have -- we will be making submissions whenever the Board determines that it's opportune on -- on --

MR. ROBERT MAYER: I'm not sure the Board's going to have an opportunity to make submissions, are we? I'm assuming that somebody's talking about quashing the subpoena. Am I incorrect?

MS. PATTI RAMAGE: I -- I believe that's correct, but I believe procedurally the Board has to hear this before anyone else does -- before it can go any further, so.

THE CHAIRPERSON: Ms. Ramage, do you want to start with your closing statements?

FINAL SUBMISSIONS BY MANITOBA HYDRO:

MS. PATTI RAMAGE: Yes. Thank you, Mr. Chairman, Mr. Vice-Chair. On December 1st, 2009, Manitoba Hydro filed its 2010/2011 and 2011/2012 General

Rate Application. During the course of the past nineteen (19) months, we have engaged in substantial discovery, production of evidence, and rebuttal in some forty-one (41) hearing days.

Not only have numerous issues related to revenue requirement, cost of service, and rate design been canvassed and debated, but a substantial, some would say overwhelming amount, of material related to Manitoba Hydro's business model, planning, and operating environment, and especially risks, have been extensively reviewed.

In order for the Board and all parties to be clear as to the approvals which Manitoba Hydro is currently seeking it may be useful to remind the parties what it was that Manitoba Hydro originally applied for, and then proceed to discuss how these requested reproo -- approvals have been modified during the course of the last nineteen (19) months.

When Manitoba Hydro filed its application, the first request for -- was for approval of rate schedules incorporating an across the board 2.9 percent increase in general consumers rates effective April 1st, 2010.

The specific rate design which would be -- which would provide the desired revenue was set forth at

Appendix 10.3 of the application. In Order 18/10, which issued on February 9th, 2010, the Board approved on an interim basis a 2.9 percent increase for all classes except for area and roadway lighting, for which no increase was approved.

In Order 33/10, which issued April 1st, 2010, the Board varied several of the rate schedules which had been filed an aten -- in Appendix 10.3, notably the residential rate schedules. The Board ordered the tail blocks to be reduced from the levels in the application and the first block rates to be increased relative to the levels in the application. The Board denied the reduction in the basic monthly charge for which Manitoba Hydro had applied. We'll be discussing these variations subsequently in the summation when dealing with rate design matters. Manitoba Hydro is not currently seeking to vary the rates approved in Order 33/10 and request that those interim rates be confirmed as final.

In the December 2009 application it also requested approval of rate schedules incorporating a further across-the-board 2.9 percent average increase in general consumers rates effective April 1st, 2011. The specific rate design matters were set forth in Appendix 10.4 of the application. As you're aware, in Order 40/11

which issued March 30th, 2011, the Board approved an -- on an interim basis a 2 percent increase to all rate classes, again excepting area and roadway lighting, which was less than requested in the application. Order 40/11 also varied the rate schedules by requiring that the residential rate increase be applied to eliminate the inversion and keep the two (2) energy blocks equal. We'll be discussing this variation again later when we discuss rate design.

Manitoba Hydro seeks to recover in rates the additional .9 percent rate increase as was requested in this -- in its application. We request that the rates in interim 40/11 be confirmed as final and that the additional .9 percent increase sought in this application be approved effective August 1st, 2011, with no retroactivity.

With respect to the implementation of that increase, Manitoba Hydro requests the same direction included in Order 40/11 be applied, that is, no increase to area and roadway lighting, all other classes to be increased by .9 percent, all increases to be applied to the energy portion of the rate, and no inversion to be applied to the residential energy rates at this time. Manitoba Hydro will provide further comments with respect to the requested approval of the additional .9 percent in

the discussion on revenue requirement which follows.

In addition, Manitoba Hydro seeks a final approval of all SEP orders as set forth in Appendix 10.7 together with any orders that have issued since the filing of the application up to the time of the Board's order. The same would go for the curtailable rate ex parte orders.

We have -- we applied for Order 46/09 to be confirmed, and also with orders issued subsequent to the filing of the application up to the time of the Board's order to also be approved on a final basis. As a note, at this point, we see Order 42/10 and 63/11 under the curta -- curtailable rate section.

Finally, Manitoba Hydro's looking for final approval of Order 126/09, which order resulted from Manitoba Hydro's application for temporary billing demand concessions for the general service medium and large customers related to the economic downturn.

The Chair also invited all parties to comment as to whether a conditional, perhaps interim, April 1st, 2012 rate adjustment may be warranted, given -- giving consideration to restraining regulatory costs and avoiding duplication. This is the issue we've numbered as Chairman's Question number 3 in Tab 1 of the book of documents.

Manitoba Hydro is not seeking a approval of a rate increase for April 1st, 2012 at this time. We certainly appreciate and enthusiastically support the Chair's objective to restrain regulatory costs and avoid duplication. However, we believe that this objective can be achieved with a streamlined application to be submitted in November or December of this year, followed by an abbreviated process, which relies, to a large extent, on the materials filed and extensively reviewed as part of the current proceeding. With this approach, a decision by Manitoba Hydro's Board on the quantum of the rate change can be supported with the updates to key documents, including the IFF, which will be updated in the fall of this year.

And with that, I will turn the mic over to Ms. Boyd to discuss the reasons for the application. We're attempting to try to switch back and forth to -- to save our voices and -- and hopefully keep your interest by changing -- changing up every once in a while.

MS. MARLA BOYD: I'm not sure whether it'll be a shuffle or a dance, but between the two (2) of us we'll cover the -- the basis.

If you're following along in the outline of the argument, I'm going to pick up that slide number 5 with respect to the revenue requirement.

Having outlined the approvals that were sought by Manitoba Hydro, I'd like to outline the reasons for the application. Manitoba Hydro's rate proposals are developed considering the current financial position of the Corporation, the forecasts of revenues and expenses, and the maintenance of reasonable financial targets, including ensuring that there's an adequate level of retained earnings to protect against the risks that are faced by the Corporation.

As has been discussed throughout the proceedings, Manitoba Hydro has three (3) primary targets that guide its revenue requirements and decision making. First, to maintain a minimum debt-equity -- debt to equity ratio of 75:25, recognizing that this ratio could slip during the decade of investment. Second, to maintain an annual gross interest coverage ratio of greater than 1.2 percent. And third, to maintain a capital coverage ratio of greater than 1.2 percent -- sorry, one point two (1.2).

In addition, the Board at Manitoba Hydro also takes into consideration a number of other factors when considering the amount and the timing of rate applications, including short and long-term market and economic conditions, assessment of physical, financial, and environmental risks, export market opportunities, and

customer sensitivities to rate increases.

Under the cost of service approach that's used to set electric rates in Manitoba, rate proposals are advanced based on sound financial management principles and judgment with respect to the risks that the Corporation faces. This judgment not only considers the short-term financial results and projections but, given the long-term nature of Manitoba Hydro's planning horizons, by necessity, it also considers the long-term risks and financial projections of the Corporation.

The maintenance of a strong financial position, which allows the Corporation to withstand the risks and uncertainties inherent in its operations and to address negative financial consequences of events outside of its control is key to avoiding the need for large or sudden rate increases in the future. This approach considers both the financial integrity of the Corporation and the rate stability for the customer. The benefits of rate stability to customers is intuitive and the benefit of a strong financial Utility should also be readily evident.

In a Crown Corporation such as Manitoba Hydro it is the ratepayers who directly benefit from improvements in the financial strength of the Utility. Manitoba Hydro has translated the objectives of financial

integrity and rate stability for the purposes of making rate proposals into a strategy of regular and reasonable rate increases. This strategy should not be overly reactive to short-term financial volatility in terms of better than or worse than expected financial results, but rather adopts the principle of gradualism to ensure rate stability for ratepayers. This approach is flexible and it allows for appropriate rate setting responses based on current circumstances and future financial proj -- projections and rate -- risk considerations.

I want to address the current financial outlook and the projections of the Corporation as the introduction of IFF-10 in this rate proceeding has led some Intervenors to suggest that the improvement in projected net income for the test year has reduced the need for the requested rate increases. And I'm referring to slide 7 which will give you a bit of an overview.

Manitoba Hydro's original 2010/'11 and '11/'12 rate proposals were filed in December of 2009 based on the financial projections contained in IFF-09. In IFF-09 the projected net income for electric operations for each of the test years was below 90 million, and the projected equity ratio was forecast to decrease below the target level to 24 percent in 2011/'12.

Despite the projected slippage in the equity ratio to 24 percent in the second test year, Manitoba Hydro maintained the requested 2.9 percent rate increase, consistent with the principle of gradualism, and to show customer sensitivity, considering the -- the then-current economic conditions. As was outlined in the application materials, these proposed rate increases were significantly lower than those of other comparable Canadian utilities at the time.

Manitoba Hydro's net income from electricity operations for 2009/'10 was $39 million higher than projected in IFF-09, which was primarily due to a change in the accounting policy related to dual-currency bonds. Manitoba Hydro's equity ratio at the end of 2009/'10 was 27 percent, which was two (2) percentage points higher than the financial target. As will be discussed later in the argument, a major reason for the improvement in the equity ratio was the significant strengthening of the Canadian dollar relative to the US dollar, and the inclusion of unrealized foreign currency gains in the debt-equity calculation.

In November of 2010, IFF-10 was finalized and projected net income from electricity operations increased in the test years to 149 million and 129 million for 2010/'11 and '11/'12, respectively, or a

forecast increase over the two (2) test years of 109 million over that projected in IFF-09. I'm sorry, did I say a hundred and twenty-nine (129)? It's 125 million. The -- the graph is correct. This increase was primarily attributed to higher projected net export sales as a result of favourable water conditions as well as lower projected finance expenses.

I might add at this point that the lower projected finance expense in each of the two (2) years was almost entirely attributable to the decline in interest rates and the foreign currency effects of the strengthening Canadian dollar.

Improvements to projections of finance expense had virtually nothing to do with interest rate forecasting methodology, for which counsel for CAC/MSOS was quite anxious to take credit. In fact, the impacts of the changes in interest rate forecasting methodology are insignificant and certainly have resulted in no actual savings in finance costs for Manitoba Hydro and its ratepayers.

Manitoba Hydro's financial results for 2010/'11 will not be released to the public until the end of July. However, the Corporation can report that the results are marginally lower than projected in IFF-10. Therefore, there is no significant difference in the

financial position of the Corporation at March 31st, 2011 from that which was projected in IFF-10.

Manitoba Hydro will perform a comprehensive update in the 2011/'12 net income projection in the fall of 2011, when IFF-11 is prepared. However, it must be recognized that there are a number of risks and uncertainties that could impact the current projected net income for electric operations of 125 million for 2011/'12. There is uncertainty with respect to the timing and the level of economic recovery, which could continue to negatively impact export volumes and prices as well as domestic sales.

There's also a number of uncertainties with respect to the financial impacts of the conversion to IFRS, which I'll elaborate on further in the argument. These uncertainties could significantly reduce the net income and retained earnings for 2011/'12 and the subsequent fiscal years.

The most significant uncertainty, however, continues to be water conditions and the very dramatic impacts that high or low water flows can have on export sales. As I mentioned earlier, the major reason for improvement in projected financial results between IFF-09 and IFF-10 was increased export sales, almost entirely due to water flow conditions.

The variability in net export revenues due to water flows is clearly illustrated in a chart which is found at page 20 of IFF-10 and which we've reproduced in Tab 2 of the book of documents. As illustrated in this chart, the potential difference in export revenues in the fiscal year 2012/'13 between high flows and low flows is $800 million, and that's just in one (1) year. Beyond 2012/'13, the annual variability and next -- net export revenue is even greater than $800 million per year.

So when CAC/MSOS does a retrospective review and attributes $777 million of difference between forecast and actuals to forecasting error, it's clear that they don't understand or appreciate the revenue variability that's inherent in Manitoba Hydro's hydraulic generating system. It's not forecasting error, it's simply the difference that can and will result from differences in water flows.

I'd like to turn for a moment to the longer-term financial projections as contained in the updated twenty (20) year financial outlook that was filed as Manitoba Hydro Exhibit 154.

In the updated outlook, the equity ratio is projected to fall to 23 percent by 2012/'13, and to six (6) -- and 16 percent by 2021. Thereafter, the equity ratio is projected to gradually improve and to

reach the 70:30 range by the end of the twenty (20) year period.

It must be emphasized, however, that the twenty (20) year outlook is a long-term financial projection for which the primary purpose is to assess the financial impacts of the development plans and to compare alternative scenarios. The twenty (20) year financial outlook demonstrates that while Manitoba Hydro's decade of investment does put downward pressure on financial targets over the short-term, the payback is very strong and compares favourably to other development alternatives.

Following on, if you are, on page 9 of the outline. In summary, while it's true that Manitoba Hydro is in the best financial position of its history, this has been achieved with water flow conditions well above average. We all know this can change dramatically in a few short months, and given the other risks faced by Manitoba Hydro, it is prudent that regular and reasonable increases be implemented in order to maintain the financial strength of the Corporation and ensure rate stability to all customers in the future.

Any deferral of the requested rate increases will increase the risk that future rate increases will need to be higher to be compensa -- to

compensate, and Mr. Warden discussed that at transcript page 4,179. The approval of requested rate increases will assist Manitoba Hydro in meeting its net income and retained earning projections for 2011/'12, and protect electricity ratepayers from potentially higher rate increases in the future.

I would like to comment on the position of CAC/MSOS, that rate increases approved on an interim basis should be reduced based on some notion of new evidence from Mr. Brennan. By that they were referring to Exhibits 112 and 124, which we have reproduced at Tab 3 of the book of documents.

It is first necessary to put the so-called new evidence into perspective. To suggest that Mr. Brennan -- Brennan's memos are somehow at odds with the testimony of the Hydro panel is absurd, and is totally inconsistent with the evidence. Let's look at those memos. The first memo is dated March 19th of 2009. That memo clearly intends to reinforce the message to senior management that they will be expected to manage within their approved 2009/'10 operating budgets.

In the March 19th, 2009 memo Mr. Brennan states, and I've highlighted it there:

> "As we will soon be embarking on a new finance -- fiscal year, all senior

management should be aware that each division will be expected to manage within their approved 2009/'10 operating budget. Should an unforseen event occur, specific approval of executive committee will be required to incur costs not included in approved budgets."

Mr. Brennan is an integral part of the budget process at Manitoba Hydro. He does not sit outside the process. He has approved the very budget, which the Hydro panel has been defending as reasonable and well-controlled, before this Board. This is not in any way inconsistent with the direction provided by Mr. Brennan.

Now despite Mr. Brennan's memo of March 2009, which of course emphasized the importance of managing within approved budgets, actual O -- OM&A expenditures in 2009/'10 exceeded approved budgets by $6 million.

And we should look at the reasons for those overexpenditures. In fact, the largest contributor to the overexpenditure was Mr. Brennan's own cost centre, which was over budget by $3.7 million. The reason for this overexpenditure was mainly due to fees for

consulting services directly attributable to this unprecedented risk review that has consumed so much of Manitoba Hydro's time and resources over the past two (2) years.

The other reason for the over expenditure in 2009/'10 was the requirement for emergency repairs to generating station equipment on the Winnipeg River. Deferring emergency maintenance at Manitoba Hydro is not an option. The consequences, at best, would be the loss of potentially millions of dollars in export revenues. The consequences, at worst, would be power outages to customers. As Manitoba Hydro has said on many occasions, and as Mr. Brennan reiterated in his memos, public and employee safety, and the integrity of Manitoba Hydro's energy supply and delivery system, will not be compromised.

The second memo issued by Mr. Brennan on May 1st of 2009, and the third memo dated August 13th of 2010, both deal with the economic downturn and the need to expand measures already underway to constrain costs. A number of measures, including travel restriction, staff freezes, overtime reductions, are referenced in the memo. Mr. Brennan makes the statement that, and I quote:

> "The measures are being implemented in recognition of the serious economic

condition, and as a continuation of the prudent fiscal management that is consistently applied at Manitoba Hydro."

Again, Mr. Brennan's memos are totally consistent with the testimony of the Hydro panel, and the suggestion that this is new evidence is unfounded.

Turning to financial targets. Throughout the proceeding there have a number of issues raised concerning Manitoba Hydro's financial targets, including the importance of financial targets and retained earnings to Manitoba Hydro and the rate setting process, whether or not the 25 percent equity ratio target remains valid if the Corporation's assets are expected to increase materially during the ec -- decade of investment, the adequacy of Manitoba Hydro's retained earnings to cover future risks, the appropriateness of the various components of Manitoba Hydro's equity calculation, and the importance of Manitoba Hydro's financial performance to the provincial credit ratings.

And I'd like to speak to each one (1) of those in turn. On slide 11, the importance with respect to the retained earnings. The debt to equity ratio continues to be an important financial metric to be used in assessing the financial strength of the Corporation

and in assessing rate proposals. The debt to equity ratio measures the portion of Manitoba Hydro's capital structure that is financed internally and not through debt financing. The debt to equity ratio is universally accepted by the financial and investment community as one (1) of the primary measures of the financial strength of the Corporation. This metric is an important consideration in understanding the risk profile of Manitoba Hydro and being able to compare the Corporation to its peers in the industry. The debt-equity ratio is also very important to credit rating agencies and the investor community to understand the risks of investing or lending to the Utility.

MR. ROBERT MAYER: Ms. Boyd, can you point to the evidence for that? It seemed through the hearing that the biggest piece of Manitoba Hydro's financial strength and credit rating came from the -- the fact that the -- the debts were guaranteed by the province. And that appeared to be the consensus of just about every witness I heard. So --

MS. MARLA BOYD: I will --

MR. ROBERT MAYER: -- tell me about --

CONTINUED BY MS. MARLA BOYD:

MS. MARLA BOYD: Sorry, I will in a

moment just walk you through some of the credit agency reports that we have and I think that will help to -- to emphasise that point.

We considered CAC/MSOS's argument that retained earnings weren't important, one (1) of the experts that you've just referred to, and that was predicated on the view that retained earnings are not a liquid pool of cash that can be used in times of financial difficulty but rather the accumulation of past accounting net income.

This is a surprisingly limited view of the role of retained earnings and the capital structure in the financial management of the Corporation. That view, that retained earnings is simply a historic accounting construct, appears to ignore or to misunderstand the real and tangible value of having the appropriate mix of debt and internally generated earnings to finance the ongoing capital requirements of the Corporation.

It would be financially irresponsible to maintain a pool of liquid cash while at the same time borrowing on capital markets and burdening ratepayers with unnecessary financing costs. Instead, retained earnings are invested in the assets of the Corporation to yield increased cashflow and lower overall rates to consumers for many years into the future. An adequate

level of retained earnings also provides the financial structure which enables borrowing on favourable terms and at very competitive interest rates.

As a Crown corporation, Manitoba Hydro does not issue share capital and its -- and is financed exclusively through retained earnings and debt. All other things being equal, the more retained earnings that Manitoba Hydro has, the less debt that is required to finance its operations. The less debt or leverage that is employed by the Corporation, the lower are the fixed interest payments, the lower the exposure to interest rate volatility, and the lower the financial risk in general.

As it is the ratepayers that ultimately bear -- bear the risk of Manitoba Hydro's operation, the lower the financial risk for the Corporation, the lower the risk for the ratepayer.

Therefore, CAC/MSOS's conclusion that retained earnings and debt-equity ratios are not important to Manitoba Hydro is at odds with their stated desire to protect ratepayers from unnecessary risks. Simply put, the retained earnings in a publicly owned corporation like Manitoba Hydro are not for the benefit of management or private shareholders, but rather for the benefit of ratepayers. The objective is to strike the

appropriate balance between debt and equity, and that balance, as previously endorsed by this Board, is 75 percent debt and 25 percent equity.

CAC/MSOS has also argued that -- that the fact that Manitoba Hydro's debt-equity ratio is projected to slip below the target in the decade of investment suggests that that target has limited value.

While the management and the Board of Manitoba Hydro is concerned about the potential slippage in the financial ratios and will do everything they can to manage as close to the targets as possible, the requirement to invest in new generation and transmission assets to meet the future energy needs of Manitobans does not negate the value of having long-term financial targets.

Manitoba Hydro therefore strongly disagrees with CAC/MSOS's assertion that its debt to equity target is irrelevant during the period of substantial investment. The PUB findings at page 127 of Order 116/08 support this view and can be found at Tab 4 of Manitoba Hydro's book of documents. Quoting from page 127:

> "The three (3) measures of financial health and stability, debt to equity, interest coverage, and capital coverage

are taken seriously by debt rating agencies and others. And while the ratio may not be expected to be maintained throughout the whole forecast period due to the effects of the expanded capital program, they still remain important."

Manitoba Hydro is also of the firm view that the 25 percent equity ratio remains appropriate financial target when considering the projections of the size of the Corporation after the decade of investment.

Manitoba Hydro also believes that a useful measure of the adequacy of the dollar level of retained earnings is that which is sufficient to withstand the financial impact of the risks faced by the Corporation. I'm over on page 14, Mr. Mayer. The absolute magnitude of these risks can grown over time depending on the duration or the severity of the risk events and can change relative to the size of the Corporation. In fact, it's reasonable to assume that there's linkage between the growth in the Corporation's assets and the risks that it faces. As a result, it's appropriate to set financial targets based on a debt to equity ratio which recognizes that fact.

Mr. Chairman, you've posed a number of

questions to parties to the hearing with respect to the adequacy of Manitoba Hydro's retained earnings in terms of the risks that are faced by the Corporation in the future as it relates to drought, potential cost increases, and to other aspects of the Corporation's operations.

Manitoba Hydro's retained earnings could be close to depleted with a severe and prolonged drought. There are other major risks, such as the loss of critical infrastructure that could also have a substantial negative impact on retained earnings. As we sit here today, however, water levels are well above average and Manitoba Hydro is taking all possible steps to avoid the consequences of a catastrophic loss of infrastructure, most importantly with the construction of Bipole 3.

One (1) of the most immediate risks faced by Manitoba Hydro is that the economic recovery will take much longer than expected, and export revenues will remain depressed for a long -- prolonged period. As export revenues currently account for approximately 30 percent of Manitoba Hydro's revenues, reductions in exports due to price or volume can have a significant impact on net income and on retained earnings. This is a situation that Manitoba Hydro is monitoring closely and will provide updates to the Board with the filing of the

updated IFF in the fall.

With regard to the calculation of equity, in your closing comments, Mr. Chair, the question was posed whether the Corporation's retained earning were firm enough, with concern being expressed specifically with respect to intangible assets, deferred costs, contributions in aid of construction, and AOCI.

From an overall perspective I have already outlined that the purpose of the debt to equity ratio is to measure the portion of the Corporation's assets that are not funded by debt, and that the equity amount is not intended to represent a pool of liquid assets.

With respect to intangible assets and deferred costs specifically, Manitoba Hydro has two (2) observations on this issue. Firstly, the real value of an asset is its ability to generate positive cash flow in the future. As a rate setting process inherently assumes that a utility is a going concern, it is this cashflow generating ability that should be important in the evaluation of asset value rather than its liquidation value. Secondly, given the accounting standards are becoming more stringent in terms of the criteria to recognize an asset and to test impairment, directionally this should be less of a concern in the future.

Contributions in aid of construction

represent non-refundable contributions provided by customers toward service extension costs. These contributions are not part of the interest bearing debt of the Corporation. And, given that they are non-refundable, they do not represent liabilities to the Corporation. As such, the inclusion of these contributions in equity conforms with the general purpose of the debt to equity calculation.

As we discussed during the Hearing, and you'll see summarized on Tab -- slide 16, the treatment of AOCI in the debt to equity calculation is a relatively new circumstance, given that it was first introduced into the Corporation's financial statements in 2007/'08 fiscal year. The introduction of AOCI is consistent with the overall trend in financial reporting and accounting standards of moving towards using fair values of assets and liabilities versus historic cost, and recognizing unrealized gains and losses on the balance sheet in order to provide more relevant information to the users of the financial statements about the economic realities of the Corporation.

The fact of the matter is that the impacts of the movements in the foreign exchange rate on US long-term debt are reflected both in the debt calculation and in the equity calculation and, as such, are the best

indication of the financial position of the Corporation at any one (1) point in time.

It is also important to note that two (2) of the credit-rating agencies, Standard & Poors and Moody's, accept the inclusion of AOCI in the equity calculation, and that DBRS looks at it on a case by case basis. Further, both BC Hydro and Hydro Quebec include AC -- AOCI in their equity calculations.

In summary, Manitoba Hydro believes that the components of an equi -- of its equity calculation are appropriate. Further, we submit that it is important that a consistent calculation be used, and that it be consistently applied so that changes from period to period can be assessed and measured.

Turning to slide 17, the assertions made by CAC/MSOS that Manitoba Hydro's financial targets and performance are not important considerations in the credit rating and the costs of financing in the Province of Manitoba and Manitoba Hydro are not supported by the evidence. The credit rating reports from each of the three (3) credit rating agencies demonstrates the importance of Manitoba Hydro's financial performance to the credit ratings of the province and of Manitoba Hydro. And, as I said, Mr. Mayer, I'll just walk you through each one (1) of them.

At Tab 5, we have the DBRS rating report for the Province of Manitoba, which is dated October 8th of 2010. That was originally filed as Appendix 65 in the application, and you'll see there that DBRS has stated that:

> "Abundant, low-cost hydro-electricity and revenue volatility introduced by Manitoba Hydro are rating considerations in the Province of Manitoba."

In the Standard & Poor's corporate credit rating for Manitoba Hydro, which is dated November 20th of 2008, and at Tab 6 of the book of documents, Standard & Poor states on page 1 that:

> "The ratings on Manitoba capture the Company's [being Manitoba Hydro's] contribution to the province's business risk and cash flow."

In Moody's Investor Service most credit -- most recent credit report for the province, which is dated August 10th of 2010, and you'll find that at Tab 7, there is a section specifically devoted to Manitoba Hydro. It's entitled "Significant Borrowings for Manitoba Hydro but Self-supported." And you'll find that several pages in. Thank you. You found it better than I

did. In this section of the report, Moody's states that:

> "Roughly one-third of the province's total direct and indirect debt is attributed to Manitoba Hydro, and is considered to be self-supporting. This Crown corporation's ability to meet its own financial obligations, without recourse to the province -- provincial subsidies, is a positive credit attribute for the province."

The subsequent paragraph in the Moody's report outlines Manitoba Hydro's future capital expenditures, broadly describes the source of Hydro capital financing, and concludes with the statement that Moody's will, and I quote:

> "Continue to monitor -- to monitor developments with Manitoba Hydro's capital plan to ensure that our conclusion regarding the self-supporting status of the Utility's debt remains appropriate."

The importance of Manitoba Hydro's financial ratings, its ratios, and its self-supporting status is further reinforced by Moody's in their most recent credit rating report for Manitoba Hydro, which is

dated February 7th, 2011, and is found at Tab 8 of the book of documents. On page 2, Moody's states, and I quote:

> "MHEB's financial ratios, including interest coverage, are an indication of the extent to which it is capable of supporting its debt independently, which is a consideration in the rating of the province."

With respect to Manitoba Hydro's future plan, Moody's then notes that, and I quote again:

> "Manitoba -- MHEB's financial forecasts indicate that management expects to generate sufficient cashflow to service the interest on its debt. However, the anticipated weakening of the MHEB's financial profile means that the Company has less cushion against expect -- unexpected events such as poor hydrology, capital cost overruns, or construction delays. Should such events arise, MHEB might need to seek larger rate increases, curtail its capital spending, or take other actions to ensure that the Company continues to

be able to independently service its debt."

It is clear that Manitoba Hydro's financial performance forms an important consideration in the credit ratings and the financing costs of the province and of Manitoba Hydro. This evidence clearly reconfirms the PUB's previous findings on this issue as stated in Order 116/08 at page 130, which you'll find in Tab 4 of the book of documents. I quote:

"It is the Board's understanding that rating agencies look prominently at Manitoba Hydro's financial strength in assessing the credit rating of the province. A weakening of the financial strength of Manitoba Hydro would not be viewed favourably by those credit rating agencies and would have implications -- may have implications impacting the credit rating of the province, making provincial borrowing more expensive. Such a development would not be in the public interest."

Close quote.

Turning to slide 18. Manitoba Hydro's debt management strategy, which was filed in this

proceeding as Appendix 85, provides an overview of Manitoba Hydro's capital finance program, and outlines the statutory borrowing authority of Manitoba Hydro.

As stated in Section 4 of the document, Manitoba Hydro's fundamental debt management objective is to provide stable low-cost funding to meet the financial obligations and liquidity needs of the Corporation.

Section 5 of the debt management strategy document provides an analysis of the historical interest rate environment with data going back to 1948, along with a range of interest forecast to 2020, a total of seventy-two (72) years of interest data. This section also outlines the Corporation's debt management considerations. As is stated on page 9 of the debt management strategy, careful consideration is given to the debt maturity schedule and the to -- total level of annual borrowings.

Contrary to -- to suggestions by Mr. McCormick on behalf of CAC/MSOS, Manitoba Hydro has a relatively smooth debt maturity schedule but avoids heavy concentrations of debt maturities in any one (1) fiscal year. These evenly distributed debt maturities promote refinancing stability. This fact is clearly evidenced in the DBRS rating report for the Manitoba Hydro-Electric Board, which is dated November 10th of 2009 -- sorry,

2010, and which you'll see at Tab 9 of the book of documents. This was originally filed as Appendix 75. On page 7 of that report, DBRS states, and you'll find it highlighted there:

> "Manitoba Hydro maintains a relatively smooth maturity profile, no unhedged foreign currency debt and a moderate level of floating rate debt, which adds stability to debt servicing costs and minimizes interest rate risk."

Stability, and the ability to reliably meet debt service obligations, is recognized by credit rating agencies as being an important rating consideration.

In February of 2010, Moody's published a special comment entitled "Canadian Provinces: Conditions Remain Challenging," which is at Tab 10 of the book of documents and was originally filed as Appendix 68 in the application. On page 2 of that report, in describing rating drivers beyond 2010, Moody's articulates their view regarding deterioration and debt affordability. And I quote:

> "When interest rates rise, provinces that rely heavily on short-term or variable rate debt financing will be

> more affected than those who opt to lock-in historically low interest rates for long dated maturities, effectively ensuring debt service certainty for the long period of time."

Sharp increases of interest rates over short periods of time have occurred in the past and cannot be ruled out. If similar conditions were to occur, interest costs would effectively be eating into funds available for public services. Under this scenario downward rating pressure would emerge.

Mr. McCormick, on page 7,846 of the transcript, acknowledged that short-term interest rates have, in the past thirty (30) years, been at levels far higher than the current long-term fixed interest rates. When presented with Manitoba Hydro Exhibit 109, which you'll find at Tab 11 of the book of documents, Mr. McCormick also acknowledged on transcript pages 7,845 through 7,846, that:

> "Long-term interest rates are currently at historical lows. The added benefit of the historical lows on long-term debt is that Manitoba Hydro can simultaneously achieve its objective for both stability and low cost, and

these low-cost interest rates will benefit rate -- ratepayers for the entire term, ten (10) to thirty (30) years, and not just in the short-term."

Manitoba Hydro is not alone in this observation. As we cited in our rebuttal evidence BC Hydro, in their annual report 2010 on page 72, stated, and I quote:

"Falling interest rates resulted from the global financial turmoil have allowed BC Hydro to take advantage of the low rates for long-term debt. BC Hydro has increased its long-term fixed rate debt and has reduced its proportion of variable interest rate exposure."

Close quote.

Turning to the National Bank Financial Report, CAC/MSOS has expended considerable time and effort on the topic of the report authored by National Bank Financial on fixed versus floating rate debt. Manitoba Hydro submits that its rebuttal evidence on pages 26 through 31 clearly refutes that evidence.

In its final argument, CAC/MSOS concluded, based on their interpretation of the NBF report, that

excessive reliance on the certainty of long-term fixed debt comes at a material cost in terms of lost opportunity for lower debt cost.

Neither NBF nor Manitoba Hydro has made that comment, and Manitoba Hydro does not agree with that conclusion. In fact, as Mr. Schulz indicated at pages 5,131 and 5,132 of the transcript, the reference graphs demonstrate only income statement volatility. And the risk that NBF ar -- articulated in the body of their report is that when you take on more floating rate debt you're incurring interest rate risk.

Consequently, Manitoba Hydro's position on the matter remains as was stated on page 37 of the rebuttal evidence. Manitoba Hydro asserts that NBF report is fully responsive to the PUB directive pertaining to an independent assessment of the Corporation's relative weighting of fixed versus floating debt. Manitoba Hydro's current ratio of fixed versus floating debt is within its approved risk tolerance and is appropriate to the current market environment.

On the topic of the economic outlook the Chairman on page 8,320 of the transcript asked:

> "What are the party's views as to the implications for rates faced by Manitoba Hydro with respect to

potential -- future potential rate increases and inflation and interest rate and currency values for domestic customers?"

Turning to slide 20 with respect to the foreign currency risks, the Corporation's Foreign Exchange Exposure Management Program demonstrates that there are relatively small implications for rates arising from the US currency fluctuations.

As identified on page 9 of the Corporation's most recent debt management strategy, Manitoba Hydro has significant export revenues denominated in US dollars. As is noted in PUB Manitoba Hydro 2-11C, the Corporation has an exposure management program which manages the Corporation's exposure to US dollar foreign exchange rate fluctuations by establishing a natural hedge between US dollar cash inflows from export revenues and US dollar cash outflows from the US dollar principal and interest payments.

To the extent that period cashflows are in balance, changes in foreign exchange rates will be offset on the income statement. For example, a strengthening Canadian dollar decreases the translation of export revenues which will be offset by decreases in the translation of the associated US denominated interest

expense.

As part of the FX Exposure Management Program the Corporation has established accounting cashflow hedges between the US long-term debt obligations and anticipated US export revenues. Accordingly, foreign exchange translation gains and losses on the US long-term debt balances in effective cashflow -- in -- in effect, are a cashflow hedge relationship, do not go directly to the finance expense, but rather are recorded in AOCI.

When hedged US export revenues are realized, the previously unrealized -- sorry, previously unrealized accumulated AOCI on the associated US long-term debt are recognized in finance expense. This process was described by Mr. Schulz and Mr. Rainkie on pages 1,077 to 1,086 of the transcript as well as being outlined in the response to PUB Manitoba Hydro 2-11B.

THE CHAIRPERSON: Ms. Boyd, accepting that, how does that support AOCI being included in equity?

MS. MARLA BOYD: That one's going to require some help.

(BRIEF PAUSE)

MS. MARLA BOYD: It -- it's a specific

point in time calculation, so that represents the best financial picture of the Corporation's debt and equity at that particular point in time. Having moved to finance expense once it's actually realized it then flows through the calculation. I hope that answers your question.

THE CHAIRPERSON: I understand what you're saying.

MS. MARLA BOYD: Mr. Chairman, I'm -- I'm at your discretion. It's kind of heavy sledding, but if you -- I have a few more sections I can go through. If you'd like to take a break, we can do that now. It's -- it's really up to you.

THE CHAIRPERSON: Well, you might as well carry on for a while, Ms. Boyd. We're wide awake.

CONTINUED BY MS. MARLA BOYD:

MS. MARLA BOYD: Good. Thank you. You'll let me know if that changes.

Turning to slide 22. With respect to the Chairman's question regarding the implications associated with interest rates, and as stated on page 13 of IFF-110, filed as Appendix 76, currently about 20 percent of Manitoba Hydro's debt is in floating rate instruments. It is assumed that Manitoba Hydro will maintain floating rate debt at current levels throughout the forecast

period. This 20 percent figure is not only indicative of a historical average and actual experience, but is also in the midpoint of the Corporation's 15 to 25 percent target range for floating rate debt.

As is indicated on page 18 of IFF-10, a change of plus or minus 1 percent in the forecasted interest rates will have an impact of approximately $430 million over the ten (10) year period in the IFF. The risk is effectively managed by maintaining the appropriate balance between fixed and floating rate debt. Manitoba Hydro's target range of floating rate debt between 25 -- 15 and 25 percent strikes the appropriate balance and is supported by the analysis of the National Bank Financial.

Mr. McCormick's calculation of gross interest expense savings of $5 million through the increased use of floating rate debt is seriously flawed. This calculation only considers the interest costs associated with the floating rate assigned in the front end of the debt stream and ignores the fact that in a thirty (30) year life cycle debt will have many interest rate resets or refinancings. Manitoba Hydro Exhibit 43 demonstrates that over the total life of the debt, floating interest rates are only cheaper if, and it's a big if, future interest rates are lower than the

forecasted interest rates originally priced into the floating rate contract. It is pure speculation and requires the Corporation to take a speculative market view to endorse Mr. McCormick's proposal.

With respect to the use of interest rate caps, CAC/MSOS has indicated that the use of these derivatives may have what he called insurance value, presumably to limit the interest rate risk associated with the floating rate -- floating rate debt. What Mr. McCormick omitted to reveal until cross-examination is that interest rate caps require the cash payment of an upfront premium. The amount of the premium will depend on the -- a variety of factors, but it is pure conjecture to -- to suggest that that would be small, as was outlined on page 8,430, when in order to have any meaningful potential benefit the premium may in fact cost ratepayers millions of dollars.

Turning to slide 23, and with respect to differences between forecast and actual results, CAC/MSOS's position is that any underforecasting of export revenues, or overforecasting of finance expense by Manitoba Hydro results in consumer's rate increases being higher than they what -- otherwise would have needed to be and that consumers will be harmed by this.

Manitoba Hydro does not agree with this

viewpoint and observes that any variances between actual and forecast revenues and expenses do not harm ratepayers as a result of the self-correcting nature of the cost of service rate setting model. Under this model any variance between actual and forecast revenues and expenses flow to retained earnings. The current and future expected level of retained earnings is one of the prime considerations in determining future rate increases. And as such, any positive variances will serve to reduce future rate increases.

The current cost of service rate setting model, coupled with Manitoba Hydro's general rate making approach of gradualism and sensitivity to customer impacts has and continues to provide the flexibility that is necessary to ensure rate stability for ratepayers, and allows for the most appropriate rate setting responses based upon current circumstances and future financial projections.

Turning to slide 24. Despite what we view to be rather obvious conclusions, CAC/MSOS goes on to recommend what has been referred to as a rate stabilization mechanism, RSM. In reality this is simply an export revenue deferral account. The proposal will result in an automatic amortization of variances each and every year. CAC/MSOS quotes the National Bank report

that the primary source of net income variability relates to the substantial level of hydrology risk at transcript page 7,660.

So it would seem rather counterintuitive to underpin a rate stabilizing mech -- mechanism on the very variable that is the primary source of volatility for the Corporation. Not surprisingly, deferral accounts tend to produce an up and down effect on customer's bills, as was confirmed by CAC/MSOS at transcript page 7,814, and that conflicts with the rate stabil -- rate stabilizing objective.

In addition to rate volatility from year to year, amortization of variances may or may not coincide with significant financial losses or other financial and rate setting signals that are prevalent at the time.

The graph entitled "Compare Export Variances to Refunds/Recoveries Under Recommended RSM," which was referenced by Mr. Williams in his final argument and is at CAC/MSOS Exhibit 29 page 8, clearly shows that refunds to customers in 2003 and 2004, at a time when Hydro was coping with financial effects of a drought. As MIPUG points out from the CAC/MSOS example at page 45, refunds from the RSM over the period 2001 to 2005 result in cumulative rate decreases of over 10

percent, while the PUB found it appropriate to increase rates in 2005 by 5 percent. And you'll find that discussion at transcript page 7,808.

In their final submission, CAC/MSOS claims that Manitoba Hydro and MIPUG do not fully understand the RSM. Without a doubt, Manitoba Hydro comprehends the mechanics, but simply disagrees with CAC/MSOS in that the outcome does not achieve the objective purpose -- the intended purpose.

CAC/MSOS makes the assertion that the counterintuitive RSM impacts could be mitigated by the inclusion of imports in the variance calculation. And quoting from page 8,448 of the transcript:

> "If one threw in imported power, the result would be a little bit different, and also it'd be a little bit different -- a little bit lower in terms of the zero line. The second point though is that this is exactly what a rate stabilization mechanism should be doing, is that it should be muting the effect of adverse events."

Close quote.

Manitoba Hydro notes that CAC/MSOS has not provided any evidence to support that assertion.

However, when the assertion is tested, Manitoba Hydro finds the inclusion of fuel and power purchases has quite the opposite effect from what CAC/MSOS expects. Replacing gross exports with net exports in the CAC/MSOS example will result in increased variability in seven (7) out of nine (9) years. Over the nine (9) year period, the cumulative variance is much lower than the $440 million cumulative amount that CAC/MSOS provided in direct evidence. This supports Manitoba Hydro's position that, over time, actual to forecast variances balance out, that is, the high flow years -- in the high flow years forecasts tend to be underforecast, and in the low flow years, overforecast. Such is the nature of a median flow forecasting methodology.

CAC/MSOS attempts to dismiss the notion that there will be incremental impacts to Manitoba Hydro's debt financing and associated fixed interest charges, disagreeing with MIPUG's proposition that Manitoba Hydro would have to generate an additional $124 million, and that's comprised at 16 million in 2002, 55 million in 2003, 44 million in 2004, and 9 million in 2005, as was reviewed on transcript pages 7,809 and 7,810, under their example.

CAC/MSOS argues that the Corporation already had that money through the recovery of

overestimated net export revenues in domestic rate increases granted in previous GRA proceedings. However, given that Manitoba Hydro's capital and maintenance projects are justified on the basis of safety, reliability, environmental sustainability, and efficiency of operations, and all other things remaining equal, the Corporation would have had to generate amounts equivalent to those RSM variance amounts that would otherwise have been reinvested in those projects.

Mr. Matwichuk later conceded that Manitoba Hydro would in fact have to borrow an incremental $100 million in 2003 and 2004, which he dismissed as a drop in the bucket at transcript pages 7,829 through 7,832.

Manitoba Hydro and at least some of the other participants in this proceeding do not share CAC's point of view. Particularly in an already difficult financial circumstance such as a drought, it runs contrary to Manitoba Hydro's long-standing goal of strengthening the Corporation's financial position and being sensitive to the circumstances of ratepayers to require rate increases in order to fund the -- the deferral account.

Turning to slide 25, the Chairman -- Mr. Chairman, on page 8,324 of the transcript, you asked: Should the Board establish an interest rate deferral

account to capture the forecast variances of interest costs, given the major debt borrowings being contemplated in the forecast?

The interest cost deferral account advocated by Mr. McCormick was discussed by Manitoba Hydro on pages 17 through 19 of our rebuttal evidence. An associated discussion on the deferral mechanism underpinning the rate stabilization reserve, as was recommended by Mr. Matwichuk, was also addressed on pages 6 through 9 of the rebuttal evidence. A summary of Manitoba Hydro's position on the matter of deferral accounts is stated on page 37 of the rebuttal evidence.

Manitoba Hydro's rates are set under a rigorous cost of service methodology and not a rate based rate of return approach. Retained earnings and net income of Manitoba Hydro are held for the benefit of ratepayers. Accordingly, Manitoba Hydro's position, consistent with Order 128/09, remains that interest or finance expense deferral accounts are neither necessary nor appropriate.

Manitoba Hydro submits that the recommended CAC/MSOS rate stabilization mechanism and interest deferral accounts would limit the flexibility of the current approach by moving to mechanistic constructs that offer no net benefits to ratepayers and would result

in more rate volatility for customers.

The self-correcting cost of service model has served and will continue to serve Manitoba ratepayers much better than a series of deferral accounts. Manitoba Hydro's electric GRA is based on a rigorous cost of service mechanism and is not a rate-based rate of return approach more commonly seen in jurisdictions such as Alberta. The self-correcting cost of service rate mechanism is well-known to the PUB, to Manitoba Hydro, and to all Intervenors. A summary of the advantages of this approach was previously described by Manitoba Hydro in its rebuttal evidence on page 19.

One of the advantages of regulation on a cost of service basis is that any variance from forecast, not only finance expense but in any line item of our operating forecast, any variance flows through to retained earnings, either debit or credit. And whenever we come forward with a rate application we look at the level of retained earnings and make an assessment as to whether or not, or what magnitude, if any, the rate increase should be. So the attractiveness of a cost of service methodology: it's self-correcting. So any kind of variance that occurs at any time on any item is corrected through bal -- the balance in the retained earnings.

In contrast, both of the deferral mechanism accounts -- deferral account mechanisms advocated by Mr. Matwichuk and Mr. McCormick are derived from a rate based rate of return regulatory model. In that model, deferral accounts seek to provide ratepayers with a mechanism to recoup surplus returns that might otherwise be distributed outside of the corpena -- Corporation to its private shareholders. In these circumstances, once the return has been earned, absent a deferral account, it is possible that a recovery may not occur. However, as a Crown corporation regulated on a cost of service basis, these mechanisms are not needed for Manitoba Hydro.

These issues have consumed significant amounts of valuable regulatory time for something which brings absolutely no value to Manitoba Hydro, to the Public Utility Board, or to ratepayers. We would strongly encourage the Board to reiterate its findings from Order 128/09 and to give clear direction to CAC/MSOS that these issues ought to be considered closed.

Mr. Chairman, there were a number of other revenue requirement issues that were raised during the hearing, and that I'd like to address, which include operating and administrative costs, IFRS and implications to rate setting, capital cost estimates, Manitoba Hydro's

capitalization percen -- practices, and intergenerational equity considerations.

I see you're looking at the clock, Mr. Mayer. Would you like me to carry on, or would you like to take your break?

THE CHAIRPERSON: It's quite a significant area that you're moving into, and --

MS. MARLA BOYD: Yes.

THE CHAIRPERSON: -- leaving others, so perhaps we'll take the break now. Thank you.

--- Upon recessing at 10:36 a.m.

--- Upon resuming at 11:02 a.m.

THE CHAIRPERSON: Okay. Welcome back, everyone. Ms. Boyd, do you want to continue?

CONTINUED BY MS. MARLA BOYD:

MS. MARLA BOYD: Thank you, yes. I'm picking up on slide 27. With respect to operating and administrative costs, Manitoba Hydro incurs OM&A costs to ensure the continued safe and reliable delivery of service to its customers. In the delivery of this service, Manitoba Hydro has experienced and continues to experience increased costs primarily related to aging

infrastructure, higher environmental and regulatory requirements, and to customer additions and new facilities.

In recent times, there have also been significant cost pressures relating to accounting changes, competitive wage pressures, higher material and commodity prices, pension investment performance, and very significantly there has been an urgent necessity to hire and train a new generation of workers to replace those that have retired or are expected to retire in the near future.

These costs in business pressures have been discussed throughout this proceeding, in the application, in the numerous responses to information requests, in the rebuttal evidence, in the direct evidence provided by Mr. Warden on pages 337 to 343 of the transcript, and his presentation which is provided in Manitoba Hydro's Exhibit 12.

In summary, the majority of the cost increase relates to accounting changes which has resulted in an annual increase to operating and administrative cost of $30 million since 2007/'08, to general cost escalation, and to wages and salaries which constitutes approximately 75 percent of Manitoba Hydro's operating costs.

Wage and salary cost increases are primarily related to the requirement for additional trainees and also competitive wage pressures. As indicated by Mr. Warden, based on a recent review of current salaries at Manitoba Hydro -- based on a recent review, current salaries at Manitoba Hydro are in the order of 10 to 20 percent lower than those at SaskPower. It is essential to develop and sustain well-trained employees to maintain a safe and reliable system, and to accomplish this employees must be compensated fairly. Manitoba Hydro is prudently managing these cost pressures after allowing for accounting changes which result in the expensing of costs that would previously have been capitalised.

Operating and administrative costs are forecast to rise by an annual average of 3 percent between 2004/'05 and 2011/'12. This increase is above the projected CPI inflation level of 1.7 percent forecasted for the same period. That -- that increase, the 3 percent, is above the projected CPI of 1.7 forecast for the same period, as you've seen in Manitoba Hydro's Exhibit 19, which you'll find at Tab 12 of our book of documents.

An important point to recognise is that CPI measures the cost changes in a standard basket of

goods to a general consumer. The cost input to a business like Manitoba Hydro move more in line with changes to wages, benefits, fuel, material, and contractor services. If you look at indices like average weekly earnings, industrial price indexes, and raw material price indexes, during the period since the last GRA, the cost of these business inputs have risen at a much higher rate than CPI.

This further serves to demonstrate the cost pressures facing the Corporation and that the cost containment efforts at Manitoba Hydro have been successful. Despite the fact that its costs are rising at a rate higher than CPI, Manitoba Hydro has held its operating and administrative cost per customer increases to approximately the same level as CPI over the review period after considering accounting changes during the period. This is illustrated in CAC/MSOS Exhibit 2, Table 5, which shows that both the increase in CPI and Manitoba Hydro's operating and administrative cost per customer after deducting accounting charges are in the order of 9 percent between 2006/'07 and 2011/'12.

Comparative neighbouring utilities, SaskPower and BC Hydro, who are experiencing similar cost pressures, have experienced substantially higher increases in OM&A cost per customer over the period 2005

to 2010, and this fact has been demonstrated on page 16 of Manitoba Hydro's rebuttal evidence, which has been reproduced at Tab 13 of our book of documents. And you'll see that in a graphical form at that page 16.

Now, while pointing to concerns with OM&A, Intervenors have had little to say with regard to the specifics of the operating and administrative cost experience and forecasts with the exception of making reference to Mr. Brennan's memos which I've dealt with previously.

Manitoba Hydro is maintaining vigilance over its costs and is exercising appropriate cost control measures where and when appropriate to ensure that cost and service levels continue to be in line with customer requirements and expectations. Cost control measures are embedded in the ongoing budgetary process at Manitoba Hydro. As Mr. Warden described on pages 5,665 through 5,668 of the transcript, the budgetary process used at Manitoba Hydro involves and requires all levels of the organization to assess and act on the best cost saving opportunities while ensuring that there's no unacceptable operational consequences.

After considering accounting changes, Manitoba Hydro's forecast operating and administrative costs of 2011/'12 and '12/'13 show only very moderate

increases of $2 million or .06 percent and $3 million or .9 percent respectively. I'm sorry, I think I said .06. It's .6 percent and .9 percent respectively when CPI during that same period is forecast to be between 1.6 and 1.9 percent.

Simply stated, Manitoba Hydro has responded to the recent cost increases by essentially holding operating and administrative budget levels for the 2010/'11 and '11 and '12 net of accounting changes at or near the level of actual costs for 2009/'10. Most importantly, Manitoba Hydro is on cha -- on track to achieve those forecasts, demonstrating the effectiveness of its operating and administration cost oversight.

On slide 29, with respect to IFRS, as you're aware, Manitoba Hydro IFRS-compliant accounting will be required for the 2012/'13 fiscal year, with restated comparative reporting for 2011/'12.

In this proceeding Manitoba Hydro filed an IFRS status update report dated October 31st, 2010, which provided an overview of the IFRS considerations for the Corporation, the progress to date, and an indication of future IFRS changes and the next steps in the project.

For IFF-10, Manitoba Hydro has projected what it considered the most likely known impacts of the conversion of IFRS into its forecast. These impacts

included reduction to overhead amounts capitalized with a corresponding increase in -- in operating costs and the write-off to retained earnings of amounts previously capitalized or deferred along with corresponding reductions to depreciation and amortization expense.

Subsequent to the finalization of IFF-10 and the IFRS status update report, as you'll see on slide 30, it has become apparent that it's unlikely that the recognition of regulatory assets and liabilities will be allowed under IFRS. As such, there may be a requirement to write off existing regulatory assets to retained earnings and the related costs will have to be expensed as incurred from that time forward. There is also the possibility of future reductions in the amount of overhead costs that can be capitalized under IFRS, which would put further upward pressure on operating and administrative costs.

Manitoba Hydro is in the process of completing a new IFRS-compliant depreciation study and the potential impacts of the changes and depreciation rates is not fully known at this time. There is also uncertainty about the accounting treatment of experienced losses on pension assets in terms of whether those losses will be written off to retained earnings, or moved to accumulated other comprehensive income under the current

proposal from the I -- IASB, International Accounting Standing -- Standards Board.

Further work continues with our auditors to assess and confirm any and all detailed changes that will be necessary to comply with IFRS. The work will continue throughout next year and will consider any new changes to the IFRS standards that may take place. This work may uncover additional requirements to change accounting policies and practices, and further impact the calculation of capital, deferred, and operating costs.

In terms of the implications of the conversion to IFRS on the rate setting process, Manitoba Hydro is of the view that any changes to accounting practices can be accommodated within the existing rate setting framework. As IFRS will only result in changes to the timing when certain costs will be recognized for financial reporting purposes, some mechanism may be required to smooth the impact of these costs for rate setting purposes. However, Manitoba Hydro believes that this could be accomplished in a manner that is not overly burdensome and we will -- we will provide the PUB with alternatives to consider at the appropriate time.

Now with slide 31 and capital cost estimates. Concern was expressed with regard to the escalating construction cost estimates being experienced

by Manitoba Hydro during the decade of investment, particularly with reference to new generation and transmission projects.

Construction cost estimates have increased for various reasons, related primarily to escalating commodity and contractor market prices. At the time of the last GRA the utility construction industry was experiencing what was referred to as sticker shock. Although there's been some abatement from the high commodity cost being experienced prior to the economic downturn, construction cost estimates continue to climb and are subject to further increases as the economic environment improves. CEF-10 projects cost estimates -- excuse me, CEF-10 project cost estimates fully reflect these expected market conditions.

In addition to the incorporation of expected market prices, project estimates are also reviewed and updated on a regular basis for a number of other factors, including the refinement of project plans and engineering design, scope changes, and changes to project schedules and in-service dates, as well as changes to projected interest and escalation rates. All --

THE CHAIRPERSON: By escalation rates, Ms. Boyd, you're talking about construction cost

escalation?

MS. MARLA BOYD: Yes.

THE CHAIRPERSON: Thank you.

CONTINUED BY MS. MARLA BOYD:

MS. MARLA BOYD: All of these factors are part of the normal process that is associated with the planning, approval, and construction of large capital projects. CEF-10 project cost estimates fully reflect these factors as well.

As part of the ongoing capital budget review process and approval process, capital project justifications, or CPJs, are presented to executive committee for approval whenever a project cost estimate is expected to exceed the currently approved estimate, plus or minus $1 million. The approval process was explained by Mr. Warden at transcript pages 5,526 through 5,530.

Because this review and approval process occurs continuously throughout the year, Manitoba Hydro's capital expenditure forecast always reflects the most current approved estimate of the Corporation's future capital plans. It must be emphasized, however, that executive committee approval does not automatically -- sorry. Executive committee does not automatically

approve all CPJs presented to the committee for approval. In fact, many CPJs are re -- are rejected for a variety of reasons.

One (1) of the primary roles of the executive committee is to challenge recommendations presented for approval and to satisfy itself that all recommendations are appropriately justified. Illustrative of this, and as discussed extensively during this proceeding, a CPJ was prepared proposing significantly higher cost estimates for Bipole 3, but this CPJ was not approved by executive committee. Not all members of the executive committee, including the president and CEO, supported the higher cost estimates for Bipole 3. As a result, Manitoba Hydro undertook a comprehensive review of Bipole 3 estimates using external consultants to gain more certainty and confidence in the cost estimates prior to incorporating them into the approved capital expenditure forecast.

The -- the process followed for the Bipole 3 estimate was totally consistent with Manitoba Hydro's established practice, that is, a revised estimate for a major capital project does not get included in the capital expenditure forecast until it is approved by executive committee. While the quantum of the proposed increase for Bipole 3 was unusually high, the process

followed was rigorous and conformed with good governance practice. Manitoba Hydro totally rejects the criticisms put forward by counsel for CAC/MSOS in this regard.

With respect to the other major capital facilities being planned, the current approved es -- cost estimates reflect the best information available at this time. There are also upward cost pressures on base capital expenditures that are necessary to maintain existing plant in a safe and reliable manner as well as to provide for ongoing system additions. Base capital expenditures are also subject to the high construction cost environment that has been previously mentioned.

THE CHAIRPERSON: Ms. -- Ms. Boyd, with respect to the matter you raised about Bipole 3 with -- after -- after the Utility obtained their -- the engineering advice and the new approved estimate arose, that estimate -- please correct me if I'm wrong. My interpretation of it was that it excluded finance costs and it also employed a -- an engineering approach that was somewhat sub -- suspect.

Is -- is that correct?

MS. MARLA BOYD: I -- no, I certainly wouldn't have described the process as suspect. It certainly reflected an advancement in the -- the technology and was considered very carefully by the

experts prior to being updated. The finance costs are included in the estimate that is -- is before you as well.

MR. ROBERT MAYER: The issue of those -- the -- what seems to have been called new technology, there doesn't appear to be, in the reports that I was reading, total confidence that that will be sufficient to make the converter stations function as they should. Now, I'm not sure who gets to make that argument but that -- but the bottom line was that there's a significant amount of money not being budgeted based upon the fact that they can use -- and I -- I don't know much about what this equipment does, but it has something to do with the converter stations and there's a significant amount of money not being spent if the technology being estimated does in fact work in the converter stations. That is my understanding of the evidence.

MS. MARLA BOYD: I believe it's already on the record, Mr. Mayer, and I -- I apologize, I don't have the transcript reference available, but that technology has been used elsewhere and it is at this time Manitoba Hydro -- Hydro's expectation that it -- that it's available to us. That's the reason for that estimate being included.

MR. ROBERT MAYER: Do we know where it's

been used? I thought we were almost unique in the kind of -- the way -- because of where our power resources are located, I thought we were just about unique in that -- in that area. Who else is using converter stations like ours?

(BRIEF PAUSE)

CONTINUED BY MS. MARLA BOYD:

MS. MARLA BOYD: I -- I don't have the specific locations for you at this point. I'm happy to file it with you. We -- we understand it to be used worldwide so we don't expect that it's that unusual, but as to the particulars of your request we'll -- we'll have to obtain that for you and file it perhaps by letter.

No, I don't take those for myself. I think we called them friendly undertakings a little while ago but we'll call it a commitment today.

With respect to the upward cost pressures on base capital expenditures, as we've discussed, those are necessary to maintain existing plant in a safe and reliable manner and to provide for ongoing system additions. Those expenditures are also subject to the same forces of the high construction cost environment that we've previously discussed.

Other factors that contribute to the upward pressure include the age of the Manitoba electric infrastructure, more stringent safety and environmental standards, and welcome growth in the Manitoba economy that adds demand for additional electric services by customers.

As a final note on the capital cost estimates, I wanted to provide a brief history on the capital cost estimate of Wuskwatim, as I believe the Vice-Chair expressed an interest in this. At the time of the filing of the Clean Environment Commission filing, the capital cost estimate for Wuskwatim was $756 million for the generating station and $145 million for the transmission line, for a total cost estimate of $901 million. The timing of Wuskwatim was such that it was affected by unprecedented increases in market prices for construction and equipment, which resulted in the estimate being revised to 988 million in 2003, 1.1 billion in 2005, 1.4 billion in 2006, and 1.6 billion in 2007. The $1.6 billion cost estimate remains the cost -- capital cost estimate for Wuskwatim today, which is comprised of $1.3 billion for the generating station and $.3 billion for the transmission line.

Moving to slide 33, Mr. Chairman, you have expressed a concern that Manitoba Hydro's practices

relating to the -- to the deferral and capitalization of expenses may result in current ratepayers not paying a sufficient amount of currently incurred costs, which could result in future ratepayers being burdened with these costs.

Manitoba Hydro does not share this view. To the contrary, Manitoba Hydro has recognized that industry and accounting standards are moving away from full cost accounting and has taken steps to adjust its practices accordingly. As evidenced in this proceeding, Manitoba Hydro has adjusted its accounting such that approximately $30 million of costs that were previously capitalized are now being expensed annually. These costs relate primarily to administrative functions and the interest costs of tools and facilities that are used both in the operation and construction activities of the Company.

The changes made to date by Manitoba Hydro are consistent with the overall direction of IFRS and are consistent with evolving industry practices. Manitoba Hydro has always followed Canadian generally accepted accounting principles and will continue to do so.

These changes are also consistent with the specific recommendation of the PUB in Order 116/08 at page 389, item number 2, which states, and I quote:

> "The Board remains concerned at the Corporation's ongoing aggressive deferral and capitalization accounting practices and recommends that Manitoba Hydro consider an early adoption of IFRS standards."

Close quote. Costs eligible for capitalization under IFRS will be more restrictive than under current Canadian generally accepted accounting principles, and Manitoba Hydro is currently reviewing this with its auditors.

From a rate making perspective, the application of Manitoba Hydro's capitalization practices ensures that current ratepayers are contributing only to the costs related to the period in which the assets are used and useful. These practices were outlined by Mr. Warden on pages 8,040 to 8,043 of the transcript.

There has been some suggestion that rate increases to maintain or enhance the Corporation's debt-equity ratio, and to position Manitoba Hydro for the decade of investment, amounts to pre-funding of equity for the construction of new major generation and transmission facilities.

Manitoba Hydro does not agree that the relatively modest rate increases necessary to maintain an adequate capital structure during the decade of

investment constitute an intergenerational equity issue.

Given that Manitoba Hydro's mandate is to provide for a continuance of the supply of energy to meet the needs of the province, it is continually investing its fixed assets to maintain an enhanced capacity. As such, the required level of these coup -- capital expenditures, and the associated risks and uncertainties, are factored into the financial projections, business decisions, and rate proposals to ensure the ongoing prudent financial management of the Corporation.

Manitoba Hydro submits that taking advantage of export opportunities to advance the in-service dates of new generation facilities and using the returns from these investments to help finance a significant portion of the associated capital expenditures in advance of their need is highly beneficial to Manitoba ratepayers. Manitoba Hydro has been successful in the past in using this approach with such plants as Limestone and is confident that this approach will be successful in the future with Wuskwatim, Keeyask, and Conawapa generating stations.

In using this approach it should be recognized that an investment of the size and magnitude of a generating station with a useful life that will spend numerous decades will not recover all fixed and

variable costs in the first two (2) or three (3) years of operation but rather will generate substantial returns for the Corporation and ratepayers in the long-run.

It is also recognized that the -- the economics of an investment of this nature should be evaluated over the long-term as there will be many business and economic cycles during its life cycle and evaluations based on short-term market circumstances will often produce poor decisions or erroneous conclusions.

In the interim, while the costs of the new generating station are coming into the revenue requirement, it is appropriate that current ratepayers contribute something toward the upward pressure on rates through moderate rate increases. As has been noted, many of the current ratepayers are enjoying the benefits of similar contributions by past generations as well as the economic benefits associated with these mega-projects and will enjo -- enjoy the benefits of new generating capacity in the future.

In order to correctly think about the intergenerational equity in a business that co -- requires continuous investment and reinvestment one must take a long view. And it's certainly not possible to define generational boundaries. One (1) thing that is certain, however, is that the cost of new and replacement

generating capacity will be at a significantly higher cost than the historic embedded cost and it is appropriate to gradually increase re -- rates to recognize this eventuality. Given that Manitoba Hydro has the lowest rates in North America, there is capacity to do this gradually while at the same time being sensitive to customer impacts.

In summary, when you consider Manitoba Hydro's mandate and business characteristics, the Corporation is confident that the PUB will find that its proposed approach to rate increases is the most appropriate and prudent way to financially manage future investments in generating capacity while at the same time balancing fairness to ratepayers and intergenerational considerations.

I'm going to turn my -- the mic back over to Ms. Ramage and allow her to move forward. Thanks.

MS. PATTI RAMAGE: Thank you. And I'll begin at slide 37 dealing with the load forecast. During the hearing a number of comments were made regarding Manitoba Hydro's load forecast. Manitoba Hydro feels it important to comment on the load forecast given its significance in producing the IFF and power resource plan.

Dr. Kubursi and Magee's review of the load

forecast was generally very positive, and I'm quoting here from the KM report at page 116.

> "The combination of survey results, technical and engineering information, and regression techniques result in a rich base for the forecast. The forecasting accuracy is deemed reasonable for the five (5) year period, and the move to integrate probabilistic forecasts is encouraging. The people responsible for maintaining and running the model are competent, enthusiastic about their work, and dedicated."

Manitoba Hydro recognizes that, as with all forecasts, the load forecast contains a level of uncertainty as it extends into the future. The reality is that Manitoba Hydro is in a long-term business. As a result, Manitoba Hydro requires that its forecast be reviewed on an annual basis. Each year, Manitoba Hydro updates its electric forecast to incorporate the latest data as well as economic, energy prices, and large customer information. Models are re-estimated and improved where possible to meet the objective of producing a reasonable and unbiased forecast of

electricity consumption.

Manitoba Hydro would also comment that forecast errors do not increase exponentially over time but rather grow linearly. Longer-term forecasts are inherently less accurate than short forecasts regardless of how often they're revisited. However, for extended planning purposes, longer-term forecasts are not so inaccurate that they cannot or should not be used and relied upon for planning. Since the forecast is revisited each year, the long fir -- term forecast will get corrected and will become more accurate as it transitions from long-term to short-term. This allows for small adjustments each year to Manitoba Hydro's long-term plans, and this minimizes the effect of any inaccuracy in the long-term forecasts.

Turning to slide 38. In your comments on January 31st, Mr. Chairman, you expressed the concern with a number of items included in Manitoba Hydro forecast that had the potential to lead to poorer financial results than Manitoba Hydro was anticipating in its IFF-09 and IFF-10 forecasts. Among these was the reduction in forecast industrial loads between 2009 and 2010, in part resulting from the closures of industrial plant.

Here I'm referring to your comments at

transcript page 2,481. At transcript page 4,182, Mr. Warden addressed this concern, and I'm quoting here:

> "While it is correct that there have been reductions in forecast load for industrial customers, these forecast reductions are significantly offset by increases in the remaining domestic load, particularly increases in forecasts of residential loads. The industrial load reductions will have little impact on forecast domestic revenues because of the difference in unit prices within the different customer rate classes."

Manitoba Hydro also believe that although the 2010 load forecast does not include the planned closure of a large smelting and refin -- refinery plant in 2015, it is expected that other load increases will offset the planned closure, and therefore no downward revision is required to the 2010 load forecast.

And before leaving the subject of the load forecast, Manitoba Hydro notes that at page 7 of RCM/TREE's written submission, it is suggested that Manitoba Hydro's electrical consumption is increasing at the rate of 7 percent per year. No reference was

provided for that figure and the figure is not supported by the load forecast, which indicates growth in the residential class in the order of 1.8 percent per year.

I next wish to deal with Manitoba Hydro's Risk Management Program, which is at slide 40.

Manitoba Hydro operates in a capital intensive industry where the supply of energy service is considered a necessity of life by our customers. Consequently, the Corporation has a low tolerance for risk, and has managed it in a manner that makes the likelihood of a prolonged loss of supply as low as possible. While the Corporation has an excellent history in this regard, it continually strives to improve its service reliability through system enhancements such as the Riel Reliability Improvement Initiative, Bipole 3, and potential interconnect improvements that will occur with the proposed new export contracts.

MR. ROBERT MAYER: What -- what was the -- that's a new one, Riel what?

MS. PATTI RAMAGE: The Riel Reliability Improvement Initiative.

MR. ROBERT MAYER: That's something different than the converter station, I'm assuming.

(BRIEF PAUSE)

MS. PATTI RAMAGE: Yeah, it's built independent of whether the converter station goes ahead, but it's related.

Manitoba Hydro's current Risk Management Program was first implemented nine (9) years ago. The program serves to formalize Manitoba Hydro risk management practices so as to address corporate-wide business and operational risks in a systematic and integrated way. The program documents major risks, assesses the extent to which these risks could impact the achievement of the Corporation's mission or mandate, it confirms that the actions being taken today to address risk are appropriate, it communicates in a coordinated manner across the Corporation, and it formalizes risk management tolerance levels for each major risk.

This work was previously undertaken by line management, but as the industry evolved, particularly in the last ten (10) years, so too have Manitoba Hydro's practices. Dr. Kubursi confirmed this at transcript page 6,772, that Manitoba Hydro's progress in this regard is consistent with industry developments.

Manitoba Hydro's risk management structure incorporates several le -- several levels of review and oversight. Executive management is accountable for ensuring that all risks that effect achievement of the

Corporation's mandate are appropriately identified and managed. Actual day to day management of risk is the responsibility of line management with the exception that when a risk becomes critical, executive management takes a more active role.

The Corporation's risk governance structure segregates duties and reporting relationships for the front, middle, and back office. The middle office is a sing -- single independent function. This has been verified independently by the reviews undertaken and filed in the record of these proceedings.

There are several corporate committees that have been established for oversight purposes. These include the executive committee that acts as an -- in an advisory capacity to the president and chief executive officer in addressing issues, initiatives or concerns of corporate significance.

A corporate risk management steering committee, or CRMC, with representation from all business units, coordinates risk activities across the Corporation. The CMR -- CRMC is responsible for management guidance, expertise, and process monitoring.

A planning review committee reviews the long-term planning issues with corporate-wide implications.

Oversight of the energy supply and financial risks resulting from Manitoba Hydro's participation in the export market is performed by an export power risk management committee, or EPRMC.

Risk management activities are formally reported on an annual basis in the corporate risk management report. This report is based on input provided by those areas identified as responsible for managing risk. The report is approved by executive management and presented to audit committee of the Board, and to the Manitoba Hydro-Electric Board.

Key risks identified in the report are described in risk profile documents which outline a description of the risk, the potential impact of the risk to corporate objectives, risk treatment activities, a rating in terms of consequence, likelihood and tolerance limits, as well as current risk performance in regards to the tolerance. It is of note that Dr. Kubursi confirmed, at transcript page 6,334, that Manitoba Hydro has appropriately identified its significant risks. And I quote:

> "I think Manitoba Hydro has done a great job in identifying the qualitative risks and have a good listing: forty-eight (48) categories

and eleven (11) categories, and forty-eight (48) subcategories."

Both KPMG and KM, which is how I'll be referring to Kubursi and Magee's together, they both reviewed Manitoba Hydro's risk management program, and both substantively accepted the program. Both made recommendations for its future evolution. In particular, KPMG concluded, at page 20 -- 220 of their report, and I quote:

> "Manitoba Hydro risk governance policies and reporting relationships, including the role of the middle office, are evolving appropriately. The export power middle office is a single, independent, risk-management function. It is steadily progressing in terms of its responsibilities for measuring, monitoring, controlling, and reporting the risks associated with power supply and operations, opportunity power sales activities."

Frank Chen of KPMG spoke to KPMG's assessment of Manitoba Hydro's risk management program during oral testim -- testimony. He said, at transcript page 3,176 -- and I'm going to take the liberty, Mr.

Chairman, in the transcript references, of -- sometimes I find -- and this is not directed at Mr. Chen, but there -- people stutter or repeat words. I'm going to try to read it so that it -- it reads as complete sentences and -- and leave out those extras:

> "Manitoba Hydro demonstrated prudent risk management practices in the following areas. They have extensive corporate oversight, as I previously described, with a deliberate internal review process over major export contracts and the term sheet process. Their analytics include stress testing, which is, by our view, conservative, with an industry-accepted methodology. Transacting processing controls are consistent with prevailing practices that mitigate human error and operational risk. Compliance and risk monitoring is performed by an independent middle office, and there is a comprehensive suite of management and performance reports that are generated by the back office."

At transcript page 5,961, after reviewing

a number of the best-practice guidelines in risk management, Dr. Kubursi said:

> "And that the story is -- then we went and tried to see that if this best-practice section that I've talked about were applied to Manitoba Hydro on a piece-by-piece basis, how does the picture come about? We were happy with what Manitoba Hydro was doing."

As noted, the various consultants did, as one would expect, make recommendations. Dr. Kubursi went on to state:

> "We would be far happier to see that there's an individual responsibility matrix that we know corresponding to every risk."

This recommendation also appears at doc -- at page 48 of the KM report.

In fact, Manitoba Hydro does have a responsibility matrix, both stand-alone and incorporated in its long-term risk profiles. Dr. Kubursi confirmed in cross-examination that he had not seen these documents at the time they wrote their report, but did review them subsequently; and you'll find that at transcript page 6,779.

KM also recommended that Manitoba Hydro has preparedness plans for all costly ricks -- risks. That can be found at page 50 of their report. Manitoba Hydro addressed this concern by providing Dr. Kubursi with a number of these preparedness plans and arranging for him to meet with Manitoba Hydro's emergency response coordinator during the May break in his oral testimony. At transcript page 6,780, Dr. Kubursi confirmed he had not seen this information at the time they wrote their report. Similarly, Dr. Kubursi confirmed he had not seen Manitoba Hydro's list of training and simulations that have taken place at the time he made the recommendation on page 51 of the KM report, that the Corporation should be engaging in training and simulation games.

There appeared to be some confusion regarding the reporting structure associated with the corporate risk management steering committee. The KM report states at page 49:

> "The CR -- CRMC is now part of finance and administration division and reports to the senior vice president of the division."

They go onto state:

> "Being at the middle office is the appropriate place for the CRMC, but it

> has to be part of the senior vice president's office, maybe in the first slot. At this time, CRMC is only an advisory body, and is without executive powers. During cross-examination by Manitoba Hydro..."

And here's I'm referring to transcript page 6,778:

> "...Dr. Kubursi confirmed that the CRMC is in fact chaired by the senior vice president of finance and administration and chief executive officer, and is made up of two (2) other members of the executive, together with numerous senior managers including the manager of the middle office."

Manitoba Hydro submits the CRMC clearly has executive authority. Manitoba Hydro also agrees with KM that in order to be effective the middle office must have the respect of the organization and the ear of the executive. Manitoba Hydro believes this is best achieved by means such as being designated a member of a group of key decision makers in the Corporation, such as those on the -- on the CRMC, and having access to the executive through that committee.

Both KPMG and KM made recommendations regarding the functionality and resourcing of the middle office. At page 220 of their report, KPMG -- KPMG noted -- and here I'm at slide 42:

> "The export power middle office is undertaking an initiative to improve its risk analytics capabilities. It requires further resources supported by risk analytic software that is integrated with Manitoba Hydro's energy transaction management system, Webtrader. The timeliness of this risk monitoring will continue to improve with added analytic resources and related technologies. KM came to a similar conclusion, recommending that Manitoba Hydro add resources to the middle office in the form of additional risk tools and statisticians to enhance the ability of the middle office to quantify risk."

And here I'm referring to transcript page 5,963, as well as the KM report at page 50.

If we turn to Tab 14 in the book of documents, you'll find Exhibit Manitoba Hydro-88, which

outlines the actions taken by Manitoba Hydro subsequent to KPMG's review; notably new positions have been created and staff hired.

The external consulting support has been in -- external consulting support has been engaged to assist in the selection of risk analytic tools. The middle office is now participating in the review of proposed term sheets and export contracts. It is also participating in the review of all power sale policies, and is charged with ensuring required updates are fully documented and improved.

Manitoba Hydro wishes to emphasize that many of these initiatives were underway prior to KPMG, or KM's review, as both consultants state risk management is a continually evolving process that must be continually managed.

We do not expect that there is ever going to be a point in time when Manitoba Hydro can put down its pens and say: We've done everything there is to do. The most important thing that you can take from the evidence in this area, is that risk management is evolve -- is an evolving process and that at Manitoba Hydro risk management is evolving appropriately.

MIPUG accurately summarized the conclusions of the consultants' reports on page 34 and 35

of their evidence, and they said:

> "For all intense and purposes, it appears all the major reports conclude that Hydro's systems and approaches for managing risk, particularly risks related to bulk power and marketing, are reasonable. Each notes that there are means to improve or strengthen risk management practices via changes that are appropriately in the realm of Hydro's management team and not the regulatory form."

If I could turn to -- the slide, page 40 through -- 3.

Both KM and CAC/MSOS evidence theorizes that there may be misaligned risk tolerances between Manitoba Hydro and its domestic ratepayers. Manitoba Hydro strongly disagrees with this theory.

As a Crown corporation, all of Manitoba Hydro's activities are focussed on delivering service and value to ratepayers. Manitoba Hydro has no mandate or motive to enrich a select group of shareholders.

The ultimate shareholders of Manitoba Hydro are the ratepayers and the citizens of the province. As such, Manitoba Hydro's risk tolerance are

totally aligned with its ratepayers. While KM theorised Manitoba Hydro was prepared to take on more risk based on the sweeping generalisation that the corp -- that corporations are less risk adverse, they do not point to any substantive evidence to support their theory as it relates to Manitoba Hydro.

Mr. Hacault cross-examined KM on this point, at which time Dr. Kubursi acknowledged that they did not have empirical evidence such as survey data to substantiate their point. And they went -- and he went on to state, and I'm quoting:

> "We're raising here the issue about the existence of multiple parties and the theoretical issue of having different tolerance for risk."

And that's at transcript page 6,605. No witness pointed to a particular action or inaction on the part of Manitoba Hydro that suggested a higher tolerance for risk.

Based on ICF, KPMG, and KM's relative unanimity in supporting the appropriateness of Manitoba Hydro's participation in the export market and the direction of Hydro's recommended development plan, the MIPUG witnesses stated that, I am quoting:

> "These conclusions accord well with the

understood risk tolerance of Manitoba ratepayers."

And there I'm quoting from page 35 of MIPUG's pre-filed testimony. This strongly supports Manitoba Hydro's view that its risk tolerances are aligned with those of its ratepayers.

KM expressed the view that the PUB is the only mechanism to review Manitoba Hydro's risk tolerance. Contrary to this statement, various levels of internal and governmental review, the Manitoba Hydro Electric Board, Crown Corporation's counsel, standing committee of the Legislature, the Lieutenant Governor in Council, Auditor General of Manitoba, as well as a number of federal and provincial regulatory bodies, in addition to the PUB, provide ample opportunity to assess Manitoba Hydro's performance in managing risk.

KM also raised the issue of moral hazard; again, a theoretical issue. The theory undoubtedly applies to some parties in some situations but certainly not to all. Ask yourself: Do you leave your car doors unlocked and the keys in the ignition just because you have insurance? No, you don't. Just because you can make an insurance claim doesn't mean you want to.

Similarly, people at Manitoba Hydro want to do a good job and are motivated to behave accordingly.

As acknowledged by Dr. Kubursi, there are no financial incentives at Manitoba Hydro for its employees to take risk. To the contrary, cur -- KM found Manitoba Hydro staff to be excellent people, knowledgeable people with lots of expertise, commitment, dedication, and knowledge. That was at transcript page 5,969.

Review mechanisms are in place and they apparently work. There was no evidence pointing to a regrettable action caused by this theoretical behaviour.

In the context of this hearing, the risk we focussed on relate to the export market. Manitoba Hydro vehemently disagrees with any suggestion that it pursu -- pursued increased risk activities in the export market because of the financial backing of the province or its domestic customers. History is evidence that the pursuit of long-term export sales has contributed to reduced domestic rates for all Manitoba customers, as stated by ICF at page 74 of their report.

Long-term contracts are appropriate and an important part of Manitoba Hydro's portfolia -- portfolio of export sales arrangements. They help prevent rate shocks and financial problems. They facilitate transmission investment and allow for prices to reflect the benefits of avoided generation investment. They are widely used in the industry, and failure to use them

would be inconsistent with prevailing practice. This is especially true when coupled with risk mitigation strategies pursued by Manitoba Hydro.

THE CHAIRPERSON: Mr. Ramage, when you say history is evidence, but your twenty (20) year forecast suggest rate increases over a period of time that would be in excess of inflation, how does that jive (sic) with the working in of the preferred development plan? How -- how does the updated IFF, which changed the forecast debt-equity ratio in 2029 from 51:49 to 72:28, or something like that? Or -- or the -- the assumption even in the presentation today that rate increases were required to meet the expected increased cost of new generation assets as they come onboard, which I think everyone can basically realize?

How does that suggest that that plan in itself contributes to reduced domestic rates?

(BRIEF PAUSE)

MS. PATTI RAMAGE: Thank you, Mr. Chairman. I think if we looked at Exhibit 12, we would see that Manitoba Hydro rates, certainly historically, have been below those of other utilities, and we see that projected outwards they're projected to be lower than

other utilities. Those utility rates are rising at a much higher pace than Manitoba Hydros.

And we have to look at, not just inflation on its own, but what that component inflation, which is the energy cost, and is Manitoba Hydro's plan, in fact, mitigating that component of -- of rising costs, and how do we compare to other jurisdictions. And I think when we do that you'll see that this plan is doing a good job, a better job, than -- than what it would be in other jurisdictions.

THE CHAIRPERSON: But you said before -- I think it was acknowledged in the cross-examination of the witnesses -- that the estimate had made that the deferred development plan had a net present value out to, what was it, 2041 of returning something like $153 million of savings, if you like, to domestic customers. But at the same time it was indicated that the capital expenditures to develop that, the increase in that of about, if I recall properly, $3.2 billion had not taken -- been taken into account.

MS. PATTI RAMAGE: That 153 million, I think everyone has to be very cautious with that number, because that number is a number that was intended to deal with a very specific situation, and that was the impact on actual rates outside of the impact on the

Corporation's retained earnings from -- from those preferred plans. So you can't -- it's very difficult to look at that number in isolation and -- and ask is -- or -- it certainly isn't the overall benefit to the ratepayer, because that was a number that was projected to deal with only the difference in the rate, but not how the equity in the Corporation would also be impacted by those preferred plans.

THE CHAIRPERSON: Okay. We'll just meditate on this and many subjects.

Another question I had on this, you were talking about risk tolerances, and I -- I heard you, you were referring to MIPUG and all these other organizations, but it's not that surprising that risk tolerances would be different between individuals and -- and corporations, with presumably the corporations having more knowledge than individuals? That wouldn't be a -- a surprise to anyone that risk tolerances would be different, would it?

MS. PATTI RAMAGE: I think risk tolerances between any two (2) people are probably different, but I think a sweeping generalization to say that -- suggest that Manitoba Hydro as a Corporation is -- is less risk adverse isn't -- isn't entirely fair when all of its activities are to promote lower rates for our

domestic customers.

And -- and so the -- Manitoba Hydro just simply isn't taking -- isn't -- isn't taking any activities without that core principle in mind. And -- and the people making those decisions are also ratepayers, too.

THE CHAIRPERSON: That is true. Thank you.

CONTINUED BY MS. PATTI RAMAGE:

MS. PATTI RAMAGE: And if I could just make one (1) other comment, going back to your previous question. I -- I would just remind the Board again that when we're looking at our preferred development plan, and I'll be getting into this later, but there is no do-nothing option. So whatever Manitoba Hydro chooses is -- you know, domestic consumption is increasing, and whether we -- whether we go forward with export contracts or not, the fact is there's going to be something in place, and it's not going to be inexpensive to meet those -- to meet that demand.

Your questions hit a -- a nice point, because they're -- I am moving to a new topic and that's water and energy management, which is slide 44.

During this rate application, there has

been much attention to Manitoba Hydro's water and energy management activities, with a special emphasis on drought, and in particular the '03/'04 drought. As everyone has become aware, through the workshops and hearings, these activities are extremely complex, but vitally important to Manitoba Hydro. Water is the primary fuel and one of the largest risks facing the utility. In low-water years, the loss of exports and increased purchase costs stress the finances of the Corporation. Extended drought can potentially deplete all of the Corporation's equity. In high-water years, environmental and stakeholder issues constrain Manitoba Hydro's relationship and its reputation.

Evidence submitted by Manitoba Hydro -- and here I'm referring to PUB Manitoba Hydro First Round 147A -- indicates that in operating the corporate -- the Corporation's power system with safety as a continually overriding objective, the following considerations are -- are pursued in -- in priority order, and they are: energy supply, energy reserves, reliability of supply, citizenship concerns, and then, lastly, economics.

In addition, at pages 149 -- or, I'm sorry, at page 4,149 through 4,151, Manitoba Hydro provided evidence on its operating criteria, including risk tolerances established for operations during

drought, such as planning for loads that would occur in a severe winter, and the necessity to preserve water storages against the possibility of Black Swan events.

Mr. Rose's testimony on the importance of Manitoba Hydro thinking about and being aware of the unforeseeable, has been strongly reinforced during the hearing by the disaster in Japan. And there I'm referring to transcript page 25 -- 2,544 through 2,546, where Mr. Rose was discussing the conte -- the concept of leptokurtosis, which is a word I have always wanted to get on the record.

In the context of the critical nature of an adequate supply of electricity, Manitoba Hydro's caution in dealing with drought risk can't be overemphasized. No evidence was filed during the hearing that challenged Manitoba Hydro's rist -- risk appetite for drought. On the contrary, Mr. Rose, at page 3,116, said:

> "I think it's reassuring to know that the system operation priorities are what they are, and that they're written out."

A premise of many interrogatories and per-asks on the topic of water management was that Manitoba Hydro could do a better job of operating its reservoirs,

especially prior to and during droughts. Most of these questions were predicated on a hindsight review, or hypothetical improvements to computer models, or forecasting equations. However, no evidence was presented that accurate forecasts of future pre -- future precipitation amounts or future market prices were available, or even possible, or that even if they were, that they would make a material change to Manitoba Hydro's decisions or significantly reduce the cost of drought.

The evidence given was that the future weather conditions beyond a few days are unknowable, and in the conte -- and in that context, perfect operations are impossible, and that costs may be incurred as a result. And here I'm referring to comments made at transcript page 4,144, 5,606 and 1,971.

An example we're all familiar with is a homeowner's decision to buy fire insurance. With perfect foreknowledge that a fire will not happen, a homeowner would not need to buy insurance; however, that's not the reality. And in hindsight, the homeowner doesn't consider the cost of fire insurance an error in decision making when his or her house doesn't burn to the ground. It's not an error in their personal forecast, or their personal view of the future. What the homeowner does say

is that having insurance is a prudent hedge against the risk of fire, even though in hindsight it may not have been needed.

And so it goes with power system operations. Water and reservoir storage is managed given -- given the conditions and the requirements at the time, given Manitoba Hydro's objectives and risk appetite. After-the-fact reviews based on -- based on assumptions that the future water supplies are knowable are not helpful.

With regard to the drought of '03/'04, it should be noted, firstly, that the circumstances and implications of this period were -- were reviewed at the 2004 GRA, and that the Risk Advisory report into this drought was commissioned, in part, in response to Board Order 101/'04. In that report, which is contained at Tab 13 of the risk binders filed in this proceeding, Risk Advisory concluded, and I'm quoting:

> "Overall, the Company did an outstanding job in managing the drought."

And that's at page 35 of that report.

THE CHAIRPERSON: Ms. Ramage --

MS. PATTI RAMAGE: M-hm.

THE CHAIRPERSON: -- on -- on that point,

I remember that -- the hearing in 2004, just one (1) small point, and may -- maybe it was just our understanding at the time, but in that hearing, if we can go back that far, and this is a small point because there's something else you mentioned that I really wanted to -- to talk about, but on this point, it was our understanding that Manitoba Hydro had chosen to meet its commitments to its US counterparties to protect its -- its business reputation, and -- and that it didn't have to do it, but it -- it did it to protect its business reputation. And we can all understand that because it's a long-term view, to keep client's happy.

But subsequently, did we not learn that the con -- long-term contracts that existed at that time actually required you to supply, and it's only been subsequent with the new arrangements that you've pointed out in the evidence, that you have the right in uncertain circumstances not to deliver?

MS. PATTI RAMAGE: I'm just going to have a brief conference with Mr. Cormie.

THE CHAIRPERSON: Please.

MS. PATTI RAMAGE: I have my views, but I want to make sure that they're consistent with Mr. Cormie's.

(BRIEF PAUSE)

MS. PATTI RAMAGE: I think the simple answer to that question would be if Manitoba Hydro were not to serve those contracts in '03/'04, we would have been defaulting under those contracts, and that -- a default would obviously create reputational risk. And I think the confusion probably comes from the point in a drought at which we would actually be in a force majeure under the contracts. And I think that's what has been described by Dr. Kubursi as one (1) of the -- the benefits of the new ones, a better understanding of when essentially you hit a force majeure.

THE CHAIRPERSON: Thank you. That -- that helps, because it had been something in the back of one's mind for a bit of time.

If I could go back one (1) page earlier, on page 44, and I know that it's come up many, many times, but for some reason it's just a -- hit me directly this time.

You say the objectives are pursued in priority order. You mean that as you say it, right, that public and employee safety, reliability, supply -- in other words, there's a -- there's an order to it. You don't -- you satisfy one (1), then you satisfy two (2),

then et cetera, et cetera?

MS. PATTI RAMAGE: Yeah, there -- that's exactly -- it's a priority.

THE CHAIRPERSON: So, for example, when it comes to the environment, we can all understand that, your consideration of the environment, is it the type of global assessment of environment, for example, that RCM/TREE has talked about for years; in other words, the reducing of global emissions? Or are we just talking about Manitoba's environment, sort of somehow as if it could be sort of circumscribed off the global?

(BRIEF PAUSE)

MS. PATTI RAMAGE: We have to confirm we wouldn't be looking at the -- this in the global context. What Mr. Cormie advises me is really what the environmental considerations are balancing; for example, impacts across watersheds, something we can probably relate to right now. Manitoba Hydro has its environmental licences and it can do what it can do within each licence limit. That doesn't mean that that is what it does. It looks at what -- doing in one (1) -- on one (1) watershed would impact the other.

We are -- because we can do something does

not mean we necessarily do it. The -- the Corporation looks at the overall impacts. So there's intangibles that go with that if -- because you're allowed to make a release doesn't mean you're make a release, if it's going to cause hardship to one (1) particular area.

THE CHAIRPERSON: It's complex like everything else, I guess. But -- and I don't mean anything negative by this at all, but, I mean, again, on the environment, for example, you're -- you're not taking a global context. For example, you wouldn't enter into a contract that disadvantaged you economically but produced its significant emission reductions in a different jurisdiction?

(BRIEF PAUSE)

MS. PATTI RAMAGE: I think the short answer is, no.

THE CHAIRPERSON: Now, with citizenship obligations, that's a very interesting one, I think I can understand it in a broad context. In the specific context, it would presumably mean respecting the rights of people within your jurisdiction, I suppose, and attending to them in the ways that you can, in a proper form --

MS. PATTI RAMAGE: I think --

THE CHAIRPERSON: -- fashion.

MS. PATTI RAMAGE: I think that's exactly correct. It's how the power system is operated must be tempered with the rights of others.

THE CHAIRPERSON: Would it include, for example, the decision, for example, to enter into partnership agreements with First Nations for -- in -- with new dams?

MS. PATTI RAMAGE: I don't think it would that, just because this is the list of operating priorities as opposed to -- I think that's -- that's at a higher level of a policy decision.

THE CHAIRPERSON: Okay, that helps me too. So you're saying what you're dealing with here is a status quo operation, how you operate something that you already have, in a sense?

MS. PATTI RAMAGE: Right, this is Mr. Cormie sitting in his office deciding whether to -- to hold water, release water, and -- and make those decisions with what he has.

THE CHAIRPERSON: Because there was considerable discussion during the Hearing on one (1) -- the point I was finally coming to, in economics. This list of priorities suggest that Manitoba Hydro's goal,

other than, for example, reliability, supply, and safety, which it's hard to imagine anyone disagreeing with that.

You're not necessarily aiming at the lowest -- I think one (1) of the experts from one (1) of the Intervenors raised this as a possibility, the lowest rates for domestic customers that were achievable, it's not your primary goal?

MS. PATTI RAMAGE: It certainly wouldn't be in the face of -- of things like safety and reliability. Those come first.

THE CHAIRPERSON: Okay. Thank you. I think we'll take our lunchbreak now. It's been a very interesting morning. We'll see you back in -- is 1:15 all right with you? Okay.

--- Upon recessing at 12:09 p.m.

--- Upon resuming at 1:17 p.m.

THE CHAIRPERSON: Ms. Ramage...? I had to decide which one of the dynamic duo was concluded before lunch.

CONTINUED BY MS. PATTI RAMAGE:

MS. PATTI RAMAGE: You get me for a little while longer. When we said we switched off, we --

and perhaps we should have been more careful -- we gave each other pretty big chunks.

Before going back to the argument, though, I thought I would maybe respond to a question that the Vice-Chair raised with Ms. Boyd, and you'll have to forgive me in terms of the answer because I'm really parroting the answer for you, but it's with respect to the Bipole 3 technology. And what I'm advised is that voltage source converter technology has rapidly advanced since the late 1990s and is now considered a mature HVDC technology. This technology is in operation in more than a dozen locations around the world, one (1) of the larger installations being in California.

There's also a -- it's called a Skagerrak link of 700 megawatts being planned for Norway and Denmark, and -- with an in-service date of 2014. And this link is rated at 500 kV and has a comparable converter component size to Bipole 3 design. And, as I say, it's -- it's in dozens of locations around the world, raning -- ranging from Australia, Norway, Finland, Germany. They're on the list provided.

MR. ROBERT MAYER: I thank you for that and I realize that to try to ask any questions that would arise out of that would probably take up a whole lot of time, so thanks for the response.

THE CHAIRPERSON: Just if I may, one (1) last sort of follow-up on that question of the priorities. And again, I'm -- I'm -- there's been so much evidence and so much gone on in this hearing that my memory might be playing tricks, but if I recall, at one (1) point in time KPMG was testifying on their report, and the question was asked -- they were looking at the draft, between the draft one and the final version, and in the draft version, if I recall properly, there was a paragraph which I think purported to represent KPMG's representation of Manitoba Hydro's objectives and said something about the primary objective being the lowest cost to domestic customers, but it was removed in the final edition.

I don't know if this speaks at all to this issue or not, but maybe you could remind me as to -- does that have any relevance to the question we're talking about?

MS. PATTI RAMAGE: Well, we could go back. I'd have to check the reference because it depends in terms of what -- whether you're talking as one (1) of the components of the corporate strategic plan or one (1) of -- this is talking about the operations of the system. So -- and I don't think KPMG would have been referring to this at that time, but we'd have to double-check that.

But a comment Mr. Cormie made to me over the lunch break that may be of interest on that topic is -- is, when we're doing this, what -- what I'm advised is that, if Manitoba Hydro's models were left to their own devices without human intervention, they can quantify and figure out the best economic solution to the nth degree and to the nth decimal point, but that isn't how Manitoba Hydro operates. Its system operators go to these priorities.

And so, for example, while the model might tell us to hold back water or release water, interests of -- of other parties such as cottage owners on Lake Winnipeg have to be taken into account. That's the human side of the equation here and those -- in those priorities the economics go down because we have a model who can tell us that but -- and our model can have some of those other pieces of the equation but you need a human to really look at how those interactions work. And I thought that was an interesting comment.

THE CHAIRPERSON: It is. It is also good to know that humans are still involved. Okay.

CONTINUED BY MS. PATTI RAMAGE:

MS. PATTI RAMAGE: Okay. If I -- if I can continue on where I left off this morning, I was

looking at Manitoba Hydro's response to PU -- or I'm sorry, Dr. Kubursi and Magee's response in PUB KM-14, where Dr. Kubursi made the statement:

> "It is simply noticed that..."

And -- and here we were talking about -- I should go back and say the '03/'04 drought was where I had left off, and there Dr. Kubursi says:

> "It is simply noticed that no action was explicitly taken to hold a specific person or office responsible for what might be considered avoidable mistakes during the drought."

In cross-examination Ms. Southall asked, Are you talking about the '03/'04 drought there? To which Dr. Kubursi responded, Yes, precisely.

This dis -- the discussion on this topic then abruptly ended with no indication of what actions or inactions Dr. Kubursi was referencing. Now, Dr. -- Manitoba Hydro notes that Drs. Kubursi and Mag -- Magee did not examine Manitoba Hydro operations during the drought. They did not speak to Manitoba Hydro employees on the subject and this was confirmed when we canvassed the Manitoba Hydro panel at page 6,854 on the June 9th -- Manitoba Hydro's June 9th evidence. And it was subsequently confirmed by Dr. Kubursi in Undertaking

number 7 -- 173 when Dr. Kubursi indicated that they relied solely on the written reports or discussions with the NYC and the KPMG report. And there I'm referring to page 17 of Undertaking 173.

Now, I think it's interesting if you recall that KPMG didn't review the '03/'04 drought and, in fact, Board counsel made a point in cross-examination of questioning -- questioning KPMG why they didn't review that drought. So this leads us to the inevitable conclusion that the so-called avoidable mistakes of the '03/'04 drought are really a product of the NYC's allegations. And as Dr. Kubursi noted at page 5,890 of the transcript:

> "She was quite generous in making pronouncements and generalizations. Nowhere was she willing to explain at length the methodology and the way she reaches these conclusions or the allegations."

Therefore, in Manitoba Hydro's respectful opinion, this can't be the opinion of KM as they didn't have in their possession sufficient information to reach that conclusion, and appears they inadvertently relied solely on the allegations of the NYC.

The only expert report filed in this

proceeding with regard to the '03/'04 drought is the RiskAdvisory report. And the conclusion of that I quoted this morning: "The Company did an outstanding job."

During the hearing, there was considerable discussion over emergency planning, and I -- I've talked about this a little bit earlier. And there was the question of Manitoba Hydro requiring risk preparedness plans on the shelf ready to respond to the unexpected. In the KM report, and in response to interrogatories from the PUB, KM suggests that Manitoba Hydro does not have risk preparedness plans, especially one (1) for drought.

As indicated in the rebuttal evidence, page 59 through 60, Manitoba Hydro agrees with the need to have risk preparedness plans and even has a corporate policy which requires emergency response plans for all foreseeable emergencies, emergencies arising from natural or man-made events that pose a real or a potential threat to the health and safety of employees, contractors, the general public, the assets of the Corporation, and related environmental protection, the ability to generate, transmit, and distribute electricity, transmit and distribute natural gas, and provide related services, and finally the ability of the Corporation to -- to conduct business in the normal manner.

And I referenced earlier, but although KM

only became aware at a late date of this Manitoba Hydro has many emergency response plans to ensure the Corporation meets these requirements. And these are -- plans are built to address all hazards and risk to which the Corporation may be exposed, for example, fire, flood, gas or electricity supply interruption, dam failure, hazardous materials, explosions and emissions disease, and work -- work force disruption.

However, Dr. Kubursi's suggestion that Manitoba Hydro does not have a plan for drought is incorrect. It's also simplistic in that it implies that drought is a specific event that triggers special action and is a disruption to business as usual.

On the contrary, drought planning is a complex ongoing organization-encompassing activity that involves much more than the preparation of a plan that might be pulled off the shelf, put into place sometime in the future with a declaration of an emergency. I -- I believe Mr. Cormie explained that at page 1,978 of the transcript.

Drought operations are not an emergency at Manitoba Hydro, rather they're incorporated into the Corporation's everyday business. However, this doesn't mean financial consequences of drought on its customers are not serious and significant. To ensure that drought

does not become an emergency and that the Corporation is able to conduct its business in a normal fashion, Manitoba Hydro plans its generation and transmission facilities, negotiates its export contracts, plans its finances, and operates its reservoirs with the worst historical drought in mind.

Each year, Manitoba Hydro updates these plans and all plans are developed consistent with the Corporation's generation, transmission, and financial planning criteria and the targets. In planning its future, Manitoba Hydro assumes that severe drought can occur at any time. As a consequence, drought preparedness planning is embedded in the day-to-day operation of the system. In his testimony on this subject, Mr. Cormie indicated that the Corporation updates its operating plan weekly as part of Manitoba Hydro's decision-making process for reservoir releases and guards against the onset of drought whenever a worst-case scenario requires more -- a more conservative release plan. And there -- you'll find that at transcript page 8,090.

Consistent with Dr. Kubursi's suggestion, Manitoba Hydro already has a process that includes drought action triggers. In this context, the use of an emergency manual is not appropriate or germane. The

occurrence of drought is only recognizable after the fact. Although its onset is not foreseeable, it is also not a single event such as other emergencies like a dam failure or tornados. Drought develops gradually over time and is detected through constant monitoring of conditions across all we -- watersheds in western Canada.

Weekly updates to water supply forecasts and worst-case scenario planning ensure that appropriate action is taken early. Although Manitoba Hydro's export power risk management committee meets a minimum of once quarterly to review the Corporation's export-related risks, including water conditions, the EPRMC increases the frequency of its reviews and approves risk tolerances, risk mitigation strategies, and significant operational decisions when warranted.

No evidence was heard during the hearing to indicate there would be an improvement to Manitoba Hydro's drought response or that the Corporation's drought response wasn't already instituted in the working mechanisms of the Corporation or that the cost of drought would be reduced by the preparation of a drought preparedness plan document.

In order to meet the challenge of operating the power system Manitoba Hydro uses complex decision support systems such as HERMES and MOST, which

assist decision makers. These models were one (1) focus of the KPMG and KM reviews. No evidence was filed that dis -- that demonstrated any material deficiencies in these models.

On the contrary, KM report -- wrote in their report at page 78:

> "By any standard, HERMES is an impressive system."

To the extent that suggestions for improvements were made, these focussed on improved documentation, having external audits, and potential research into alternative esoteric solution techniques. Manitoba Hydro accepts these suggestions as directional and worthwhile of consideration, and notes that in many areas, for example, hydrological modelling, this work has been ongoing at Manitoba Hydro for many years.

During the hearing, there's also been a suggestion from Doctors Kubursi and Magee that through the use of storage the cost of drought can be avoided or reduced. As Mr. Cormie testified, the cost of drought is triggered by the extended lack of precipitation which can reduce water supply and lead to a reduction in hydraulic generation by up to 50 percent. And that's at transcript page 8,116. In that instance, storage does not create replacement energy. It can only affect the timing of

hydraulic generation.

To the extent that additional storage can be used to help mitigate the cost of drought, the evidence given by Mr. Cormie at page 8,080, and supported by Mr. Bowman at page 7,337 was that overall there would be an increase in cost through the additional spillage, environmental and other impacts from higher waddle -- water levels on other stakeholders and that the be -- benefits in any drought year would be minor in comparison to the impact of low inflows.

Turning to slide 48, to make sure we're all on the same page. In the evidence of Dr. Kubursi and Magee it is suggested that Manitoba Hydro should alter its objective in the models to one of one of minimizing costs rather than maximizing revenues.

Manitoba Hydro has considered these statements and concludes that it concurs with the evidence of Judah Rose at page 2,661, that this may be a distinction without a difference. Manitoba Hydro submits that having the objective function of maximizing net revenue in its models will result in the least cost to ratepayers. Manitoba Hydro formulates the optimization problem such that it is not possible to trade off domestic firm load in order to make export sales. In addition, the maximization of net revenue is limited by

the constraints of the system, including, for example, transmission limits. Manitoba Hydro disagrees with the KM position that changing the objective function to minimize cost rather than maximizing net revenue will provide for greater efficiency and a more economic result.

Manitoba Hydro remains of the view that the practices of optimizing net export revenues and water management and market activities benefits Manitoba Hydro's ratepayers and allows Manitoba Hydro to take advantage of export op -- opportunities for the benefits of it -- of its ratepayers. And we've expressed that at page 59 of our rebuttal. If Manitoba Hydro were to adopt the practice suggested by Doctors Kubursi and Magee this would tend to reduce the quantity of export sales and would result in lower net revenues and higher domestic rates, exactly the opposite of the intended result.

Turning to page 4 -- slide 49, in your closing mark -- remarks, Mr. Chairman, you raised a series of questions on the wisdom of testing alternative development approaches. During this Hearing Manitoba Hydro has provided financial results for a preferred development plan which consists of a new firm export -- which consists of new firm export sales that are facilitated by advancing the construction of Keeyask and

Conawapa together with increased interconnection capability to the US export market.

Manitoba Hydro has also provided the financial results for an alternative development plan which consists of the construction of Conawapa for the first unit in service by 2022/2023, followed by a combined-cycle combustion turbine in 2033/2034, for a scenario without the new export sales and without additional export -- or without additional interconnection capability.

This alternative development plan is less capital intensive and does not include the construction of Keeyask or other generation in advance of domestic requirements. While it's not necessary nor feasible to expect a decision can be made today by this Board as to which of these development approaches is appropriate, the twenty (20) year financial outlook, and here it goes from 2010/'11 through to 2029/'30, which was filed as Exhibit Manitoba Hydro 72, demonstrates that the preferred development plan is beneficial to ratepayers in the long-term by providing either greater retained earnings or reduced customer rates.

In response to the second part of your question, should not all possible development scenarios be tested, and in regard to the adequacy of the prices

negotiated in the term sheets, there are other scenarios of system expansion with and without firm sale agreements that are possible. And these will be tested in the public needs for and alternatives to review, which will take place prior to Manitoba Hydro being authorized to proceed with its plans.

Manitoba Hydro recognizes that the protection of long lead supply options such as hydro will result in significant expenditures prior to regulatory approval and construction commitment. Manitoba Hydro submits that it is necessary to undertake expenditures well in advance of the date of commitment in order to protect the option to develop hydro in Manitoba. This position, I believe, was supported by Mr. Bowman of MIPUG.

As well, part of the process of protecting the hydro option is the testing of alternative scenarios of system expansion. Manitoba Hydro is in the process of preparing for the NFAAT review which will carefully consider substantial quantities of information which is not yet available to be reviewed in a public forum and which is not presently before the PUB. It is only in the context of such a review that we can gain confidence that export revenues will meet new costs so as to allow for advancement of construction without the need for further

domestic rate increases than otherwise would be required. And that's -- that was the -- and I think that was the question posed by the Chair in his closing remarks.

In addition, the NFAAT review will consi - - consider a broad range of considerations in addition to project economics and rate impacts in assessing the attractiveness in the development plans. One (1) such consideration is that a development plan that advances hydro generation has advantages since it provides more flexibility in medium requirements that may result from a potential increase in load growth. Manitoba Hydro notes the issue of increased flexibility of the -- of the preferred development plan and the potential for taking advantage of -- of lost opportunities is discussed by MIPUG at page 16-4 of their written submission to the final argument.

Manitoba Hydro has provided substantial information to the PUB in this hearing process, including provision of the preferred and alternate development plans, such that the -- the PUB should be able to make an informed decision on the requested rate increases for the 2010/'11 and 2011/'12 test years.

And if I could move to the slide at 51, Mr. Chairman, you also posed a question regarding Manitoba Hydro's dependable energy resources and, in

particular, whether thermal, wind, and firm imports should be included in the calculation of dependable energy resources.

As you know, Manitoba Hydro's power resource plan considers all dependable wind energy, thermal energy, and firm imports as dependable resources in planning and operating the system. Rebuttal evidence at page 62 indicates that it may require the use of higher cost thermal and import energy for only about 10 percent of the flow conditions. However, relying on this as dependable energy provides benefits by effectively firming low-cost hydro-electric energy that would otherwise be considered as surplus opportunity energy, which would be available under 90 percent of flow conditions.

In responding to a question from Mr. Hacault on the effect of removing win ener -- wind energy and thermal generation from dependable energy, Mr. Surminski responded "it would reduce the quantity of firm sales," and that's at transcript page 5,651. Later, Mr. Cormie added:

> "We would need new generation now, so we'd have to advance Keeyask to today."

And that's at transcript 5,660. In responding to a question of wind generation being considered as

dependable energy, Mr. Surminski stated, quote:

> "That there is a quantity of energy over the entire year that Manitoba Hydro can count on and Manitoba Hydro has reservoir flexibility to absorb the wind energy whenever it is available."

End quote. That's at transcript page 5,640. The dependable portion of win ener -- wind energy is assumed to be 85 percent of the expected annual availability to reflect that it is possible to experience an entire year that results in low wind production. And that is -- was referenced at transcript page 1,191.

Doctors Kubursi and Magee argue that wind generation should not be considered as dependable energy, because it is not dispatchable. Mr. Judah Rose of ICF pro -- provided a significant discussion on this issue and concluded that, quote:

> "Manitoba Hydro is using the right approach, given its highly hydro-based system."

That can be found at Exhibit Manitoba Hydro 113, page 14.

Doctors Kubursi and Magee further argue that thermal energy should not be considered as dependable because it is generally uneconomic since high-cost gas-fired generation may be out of the money.

Manitoba Hydro believes that it's appropriate to consider out of the money thermal generation and firm import energy as dependable resources even if they are costly because on average, in the long term, they are not utilized frequently and provide overall benefits that far outweigh their cost.

It appears that Doctors Kubursi and Magee do not recognize that high-cost and out of the money resources are beneficial in the long run, since they can be used to firm up additional hydro-electric energy. They seem to be more concerned with the economic concept of supply that would require that we be a little more sensitive to what it would cost to put this amount on the market. And that's quoting them from transcript page 6,064.

Mr. Rose of ICF concluded that Manitoba Hydro is using the right approach in utilizing thermal energy as dependable and stated that, quote:

> "Kubursi and Magee are confusing reliability -- reliability planning and economic analysis."

And that was found in Exhibit Manitoba Hydro 55 at page 89.

Mr. Bowman also supports the Manitoba Hydro position by stating that, quote:

"Our -- our view would be that Hydro appropriately deals with wind and thermal resources in calculating its dependable energy."

And that's found at transcript page 7,356.

Manitoba Hydro does not accept the KM argument and maintains its position that it is appropriate to include thermal, wind, and firm imports as dependable resources based on the benefits derived from having those assets available to firm up surplus hydro-electric power that otherwise would have to be sold on the opportunity market.

Next, I'm going to deal with the financial impact of extended drought, which is page -- which is slide 53. Manitoba Hydro's position is that the financial impact of a five (5) year drought is an appropriate stress test for assessing financial risk faced by the Corporation.

ICF Consulting supported this ris -- risk analysis, and concluded in Exhibit Manitoba Hydro-55 at page 61, that, quote:

"The scenario examined by Manitoba Hydro is reasonably stressful. It is almost equivalent to adopting a 95 percent confidence in -- interval for a

given year -- a given future year." I'm sorry. End quote. In reference to whether multiple risk factors should be considered simultaneously for a stress test, ICF concludes on the same page that:

> "Manitoba Hydro does not need to simultaneously examine multiple risk events since Manitoba Hydro reached the desired confidence level through the use of a single risk, which is a five (5) year drought under expected export market conditions."

In IFF-10, Manitoba Hydro estimated the financial impact of a five (5) year drought beginning in 2012/2013 be in the order of $2.1 billion, including additional finance costs due to reduced revenues. Manitoba Hydro utilizes the SPLASH model to determine the financial impact of drought by comparing the consequences of an extended five (5) year drought period to the average of all flow conditions that are utilized in the IFF. Since the SPLASH model considers all of the major factors that influence drought operations it is the appropriate tool for analyzing the financial impact of a five (5) year drought.

Manitoba Hydro is of the view that its estimate of the financial impact of drought is not

seriously understated due to spla -- due to the SPLASH model using perfect foresight of future water flows. The issue was raised by KPMG in its report, and expanded on by KM, and commented on by Mr. Jonathan Wallach who suggested that it may be a significant issue in Manitoba Hydro's risk assessment.

In its rebuttal on page 62 to 64, Manitoba Hydro refutes the assertion that using perfect foresight is a significant issue. In Manitoba Hydro's example in the rebuttal, perfect foresight as to when a drought will end could underestimate the cost of an extended drought by $90 million. This is a relatively small number compared to the overall cost of $2.1 billion for a five (5) year drought. Furthermore, this underestimate is likely to be offset in actual operations because SPLASH makes the conservative assumption that non-firm imports can't be relied on during -- in its drought analysis. The likely availability of non-firm import energy in actual operations at lower costs than Manitoba Hydro's gas-fired generation that is assumed in SPLASH can easily offset the $90 million underestimate that resulted from using the perfect foresight in SPLASH.

In their report at chapter 6, KM developed a Monte Carlo simulation model that was used to quantify Manitoba Hydro's financial risk arising from a number of

factors. On June 23rd, Manitoba Hydro received KM's responses to several undertakings in which KM provided a revised analysis of the calculations included in chapter 6 of the KM report. The revised information results in the quantification of the financial impact of drought that is much less severe in magnitude compared to the original estimate.

Manitoba Hydro has reviewed these results and concludes that the revised analysis remains fundamentally flawed and should -- and should be disregarded in spite of some attempt to correct errors that were identified and to improve calibrations of probability distributions. Mr. Cormie is on the record of being supportive of the type of analysis conducted by KM and it's very similar to the type of capability that Manitoba Hydro's designing in PRISM.

It appears Mr. Williams has forgotten about PRISM in his comments on the need for Manitoba Hydro to develop this type of model. We have included in the book of documents at Tab 15 a detailed discussion of the concerns with respect to chapter 6 and with the analysis drawn from that chapter. In the interests of efficiency, and given the amount of to -- of time already spent on this topic by other parties, we don't propose to review it in detail but have it avail -- available as

Attachment 1 to our argument for the Board's review.

Manitoba Hydro concludes that there is no credible evidence to demonstrate that its estimate of the financial consequences of an extended drought is inappropriate. In fact, KPMG confirmed Manitoba Hydro's process for measuring drought is appropriate and consistent with practices of other utilities. That's found at page 96 of their report. ICF, at page 109, concluded that Manitoba Hydro's quantification approach is reasonable and went on to encourage the use of PRISM once in a drought to further refine the estimates of -- of risk.

Next I'll deal with Manitoba Hydro's estimate of frequency and severity of droughts. A drought is defined as a series of years of below average water flows. An examination of the Manitoba Hydro inflow record indicates there is a persistence in water flows from one year to the next and cycles of below average inflows can last several years. Manitoba Hydro assesses the severity of a drought by determin -- determining the deviation between net flow related revenue and the average net flow related to revenue over different time periods.

For example, Manitoba Hydro utilizes a benchmark five (5) year drought that corresponds to the

re -- recorded flows from 1987 to 1991. The severity of this five (5) year drought, beginning in 2012/2013, in terms of financial impact amounts to a reduction of $2.1 billion in net income compared to that expected in IFF-10, including additional financing costs.

Manitoba Hydro has used an approximate approach to assess the frequency of the five (5) year benchmark drought and it concluded it is a one (1) in fifty (50) year event since there have been two (2) droughts of this severity and duration or worse in the approximately one hundred (100) years of record. Mr. Rose used a similar approach and he concluded there were two (2) droughts resulting in the probability of, quote, "2 percent of having the drought that the Company uses or worse." And that's at transcript page 2,565.

KM undertook a much more statistical analysis for drought frequency by using two (2) different approaches. Through the use of an auto-regressive time series model, KM concluded that the -- that five (5) year drought of severity corresponding to the 1987 to 1991 recorded flow can be expected to have a frequency of one (1) in seventy-two (72). And that's found in Exhibit KM number 4 at page 59. This conclusion is generally consistent with the Manitoba Hydro estimate of frequency of one (1) in fifty (50). And if it's correct, it just

simply indicates Manitoba Hydro is somewhat conservative in choosing its benchmark drought.

The statistical approach that KM used is based on results from extreme value theory, and this approach is used to determine whether the historic minimum that Manitoba Hydro has experienced is a good representation of an extreme that is typical for -- in a period of ninety-four (94) years. In the KM Report at page 153 they state that, based on their analysis, quote:

> "It appears that the actual five (5) year minimum is not too out of line with what it would be on average from other potential ninety-four (94) year water flow outcomes."

End quote. They go on to conclude on page 162:

> "This assures us that the use of the actual minimum as kind of a benchmark worst possible case scenario is not unduly optimistic or pessimistic."

End quote. This KM analysis confirms that Manitoba Hydro's use of the actual minimum from the period of record is reasonable. CAC's suggestion that KM's statistical approach is superior is simply difficult to understand in light of this evidence.

Based on the foregoing arguments, there is

no evidence that Manitoba Hydro's assessment of drought frequency or that the use of the minimum, is inappropriate.

Mr. Chairman, you posed questions regarding drought risk related to the development plan with the new hydro generation and transmission in place and whether Manitoba Hydro will be more vulnerable to the effects of major drought in these -- in that -- at that time.

Manitoba Hydro believes this should not be a significant factor in deterring future development of hydro-electric generation. Being a predominantly hydro-electric system exposes Manitoba Hydro to the qu -- consequences of low water flows and extended drought periods. Cycles of low and high water flows are an inherent characteristic of hydro-electric development. Consequently, further development of hydraulic resources will result in a larger deviation of revenues from average during the low flow periods.

It is Manitoba Hydro's view that the magnitude of the financial consequence should not by itself be a factor that should detract from the economic attractiveness of hydro-electric development. What is important is that the Corporation has sufficient financial strength to withstand an extended period of

adverse water conditions with the expectation that there will be periods of high water conditions that will replenish retained earnings.

KPMG undertook an analysis of the ability of Manitoba Hydro to withstand the consequences of droughts of five (5), ten (10), and fifteen (15) years in duration. They also tested different time periods for the start of these droughts because new hydro-electric development is most vulnerable to a cycle of low flows immediately after completion since there's been no time to accumulate benefits from the development. KPMG found that the preferred development plan was more robust in terms of ability to withstand the effects of extended droughts. And that can be found at the KPMG report at page 183.

I'm up to slide 55 by my count. While the adequacy of historic stream flow was the subject of discussion by the risk experts, none of the Intervenors nor the Board council commented on this during their closing submissions. So, again, in the interests of time Manitoba Hydro has included its closing remarks on this topic as Attachment 2, found at Tab 16 of the book of documents. We conclude that the historic flow record since 1912 is adequate and provides a rich sample of possible flow conditions appropriately adjusted for

current regulation.

Similarly, while there was some discussion regarding the use of different production coefficients in HERMES and SPLASH, neither KPMG nor KM found this to be an issue of any significant merit, nor did Intervenors elect to comment. We have summarized Manitoba Hydro's views in Attachment 3 to our argument at Tab 17 in the book of documents.

There has been plenty of discussion on the topic of the adequacy of the models, and here I'm now up to slide 57. Judah Rose found no deficiencies with operational impacts of Manitoba Hydro models. And there I'm referring to Manitoba Hydro Exhibit 55. KPMG's review of Manitoba Hydro's forecasting models concluded that, and I'm quoting here:

> "We are satisfied that Manitoba Hydro has taken appropriate care and due diligence in developing, operating, and maintaining the models. This relates to the approximations in the HERMES models, the use of adjustment factors, and the ongoing calibration and updates to both SPLASH and HERMES."

That's found at KPMG at roman numeral XI. They also said:

"We are satisfied that Manitoba Hydro has taken appropriate care and due diligence in developing and maintaining these models and in using them in its operations planning process."

That's found at Roman Numeral Number XXXI of the KPMG report.

Kubursi and Magee found with reference to MOST, and I'm quoting here:

"VISTA is an -- undoubtedly a powerful tool and throughly-tested system."

And that's at page 63 of the KM report. Regarding HERMES and SPLASH, KM stated on page 180 of their report:

"On the whole, we felt strongly that HERMES is a valid model. It serves Manitoba Hydro well."

They said:

"SPLASH is an equally relevant and useful system."

In addition, on page 95 of the report, in a reference to the SPLASH model, KM stated, quote:

"We are happy with the simulation structure of the system and the insights that this can add to the Utility."

There have been a number of recommendations for improvement or suggestions related to modelling, some of which Manitoba Hydro is already pursuing or will consider for future work along with its other priorities. However, overall, none of the experts who reviewed and commented on Manitoba Hydro's operational and planning models have noted any material deficiencies.

As Dr. Ma -- Magee commented at page 5,952 of the transcript, quote:

> "Regarding the models, we feel the models are serving their purposes and can be relied upon for operational planning and long-term planning."

Dr. Kubursi, at page 5,969 of the transcript also noted, quote:

> "We felt that the systems at Manitoba Hydro are well done. They're run by excellent people, knowledgeable people with lots of expertise, commitment, dedication, and knowledge. But we wanted this to be more codified. We wanted it to be more documented. We want it to be vetted."

These are it -- items in Manitoba Hydro's

respectful submission, that will take the system from a Chrysler to a Cadillac. They are improvements which can be made as time and resources permit to systems that are currently performing their intended functions and performing them well. These are not items which are required to ensure reliability of Manitoba Hydro's forecasting, operations and planning decisions -- I'm sorry, I'm going to start that one over. These are not items which are required to ensure reliability of Manitoba Hydro's forecasting or operations and planning decisions.

The Board can, having heard the evidence of the experts on these models, be satisfied that the models are functioning well, are adequate for Manitoba Hydro's needs, and serve the ratepayers well.

Manitoba Hydro acknowledges that KM felt strongly about the use of probabilistic models when considering the future and its many uncertainties. Manitoba Hy -- Hydro has and continues to focus on the issue of decision making under uncertainty, for example, in its development of the PRISM screening tool and in development of stochastic enhancements to its HERMES model.

There has also been plenty of discussion on the merits of placing most HERMES, SPLASH, PRISM, and

other models on a common platform. In response to questions by the Chairman, if Manitoba Hydro accepted your recommendation regarding moving to a common platform would it provide more support for the preferred development plan, Dr. Kubursi clarified:

> "This is not an issue that is related to accuracy of the models."

And that's at transcript page 6,262.

Manitoba Hydro acknowledges there is overlap between the various models but it is at these points of overlap that the results of the models can be compared and the differences can be explained as check of model accuracy. Manitoba Hydro also agrees there are merits to use of common data and relationship between various models, where appropriate. This is consistent with Manitoba Hydro practice. Like KM, Manitoba Hydro recognizes the importance and value of having a modelling community. However, Manitoba Hydro does not believe it necessary to have a common platform for this community of experts to exist. In fact, Manitoba Hydro seems to have a very good modelling community without having a common flat -- common platform. KM commented, and I'm quoting here from transcript page 6,291:

> "We got a level of comfort. There are all these people who know each other.

I mean, we sat back on the sides and saw what kind of a relationship and how well it is working."

Manitoba Hydro disagrees with KM's statement that it is a top priority to integrate the models on a common platform. Similar to other entities in the industry, Manitoba Hydro believes there are good reasons for having models on different platforms if they are to serve different purposes, one (1) main reason being to align the models with the requi -- with the requirements.

Manitoba Hydro concurs with the views expessed -- expressed by Judah Rose at transcript page 2,580 that there is greater benefit in exploiting the increased level of computing capacity to elaborate on the analysis for the various modelling purposes rather than computing -- com -- than -- rather than consuming computing resources to link all its models together on a common platform. Please recall that Mr. Rose's company is in the business of energy modelling. They're not selling the models but they're selling the models' results. It's -- it's absolutely important that Mr. Rose's models are top notch and -- and we would submit he is the one to look to on -- on these sort of issues. He's clearly the witness with the most experience in

these matters.

There's also arguments to maintain some independence between models to diversify and reduce risk. Manitoba Hydro is therefore giving higher priority to develop and enhance its models for their various purposes over efforts to place the models on a common platform.

It's noteworthy that immediately after Dr. Kubursi clarified that a common platform is not an issue related to accuracy of the models he went on to suggest that it -- that it is non-linear, dynamic, and stochastic modelling that would have a bearing on model accuracy. And that's at page 6,263. No Intervenor has attempted to delve into these highly technical issues. Manitoba Hydro's comments are therefore set out in Attachment 4 at Tab 18 of the -- of the book of documents.

It is of note that, when asked what degree of improvement could be expected from the introduction of non-linear, dynamic, and stochastic modelling, Dr. Kubursi's answer was marginal. Manitoba Hydro is not convinced that even marginal improvement would result, given that models are advisory tools, and decisions on development plans depend on many factors and assumptions that are based on human judgment and are beyond the scope of the models.

Consequently, more refined model outputs

are only a small part of the decision-making process and it is not clear that such a refinement will necessarily result in even a marginal change in the approach for selecting an optimal development plan. In addition, it's not clear whether refined models would provide more support for a particular development plan in response to the specific question posed by the Chairman.

Now I've moved up to slide 66.

(BRIEF PAUSE)

MS. PATTI RAMAGE: As I just noted, Manitoba Hydro's planning and operation models are used to inform decisions not dictate actions. Their use assists decision makers in quantifying the many economic tradeoffs while adhering to the thousands of constraints governing the operation of the system, which are well beyond human capability to follow.

KPMG explained in their report:

> "Management judgment is applied either in the use of the model outputs or in the development of input assumptions. This is appropriate given that the models are a decision support tool rather than a direct means of operating

the business."

And that's found at KPMG report, page 49. Mr. Will Lipson of KPMG explained in his testimony regarding model outputs:

> "And that's why this is not specifically a science that models can drive the Company. It needs humans and it needs management to make good judgment calls and appropriate judgments and have experience with how to optimize the operations of the Company."

And that's found at transcript page 3,691.

Manitoba Hydro's do not directly dispatch generation, nor do Manitoba Hydro's power traders fully commit to the level of export or import activity recommended by the models. KM confirmed this fact in their findings when they said:

> "HERMES is not directly linked to the trading floor and its forecasts are not used as bids on the floor. Models are useful tools for informing users' decisions, not replacing them."

And that's found at the KM Report at page 187. Professional judgment is used to evaluate model results

and consider other factors that influence planning and operating decisions, namely licence, legal, and citizenship obligations to all stakeholders affected by Manitoba Hydro's operations, all of which are given priority over any economic advantage. As noted earlier, Manitoba Hydro, we've outlined these operational priorities in response to PUB MH-147-A.

And at slide 67, dealing with SPLASH, Manitoba Hydro's position is that the SPLASH model produces appropriate results in terms of revenues and costs that are affected by water flow conditions. It considers the variability of water flows by using the chronological record of historic flows and it simulates system operations, assuming that each of the flow sequences can occur in the future. The SPLASH model has been calibrated to represent actual system operation by considering all relevant factors that influence net export revenues, such as domestic loads, hydro-electric generation supply, export volumes, and prices in on-peak and off-peak periods, as well as requirements for thermal generation and imports, and assessments of water rental costs.

A peer review was undertaken in 2005 and that can be found at Appendix 74 of the fal -- of the filing. It concluded that the model provides an

excellent representation of actual system operation and was appropriate for water regime studies related to the impacts of adding Wuskwatim to -- to the Manitoba Hydro system. From information in the peer review reports related to SPLASH model calibration, Mr. Bowman concluded that the model has, quote:

> "Very reliable output, and it cor -- corresponds very well with what happens in reality on the system."

And that's at transcript page 7,330. There has been no record on the evi -- no evidence on the record during this hearing that the SPLASH model produces inappropriate results.

ICF, KPMG, and KM state that in the suite of Manitoba Hydro models, including SPLASH -- or I'm -- SPLASH is an -- is appropriate for its application. KPMG relied on the SPLASH model outputs for their assessment of the financial impacts of extreme drought on varying levels of firm export contracts associated with the preferred del -- development plan as well as the alternative development plan. That appears to be a strong endorsement of the model.

Mr. Chairman, you also asked that the parties comment on whether issues of credibility and independence arise in respect of this proceeding. In

this hearing, we've heard from three (3) primary witnesses regarding the risks Manitoba Hydro faces as it -- as a result of its participation in the export market and the potential impact of drought: ICF; KPMG; and the PUB's independent consultants, KM.

We've reviewed their evidence extensively in final argument. Each of these witnesses were provided unfettered access to Manitoba Hydro's staff, processes, data, and contracts, and that's confirmed at transcript page 3,797 as well as 3,262. You will recall Dr. Bur -- Kubursi indicated on a number of occasions, they were very impressed by the openness of Manitoba Hydro. One of those occasions is at transcript page 6,152.

During KPMG's appearance the Board expressed concern with the change in scope of KPMG's assignment as between their November 20th engagement letter and their December 15th engagement letter, in particular, the removal of the reference to the outline of an in-depth risk study of all risks facing the Corporation as directed in PUB Order 32/09.

Mr. Lipson explained the changes were made following receipt of correspondence threatening legal action by the NYC. KPMG's own risk management professionals, along with their New York consul -- along with their New York legal counsel, made the changes. The

-- that's found at transcript page 3,241. Mr. Warden confirmed this at tra -- at page 3,868 of the transcript. An injunction in New York would have been extremely disruptive to moving this process forward.

It should be noted that the PUB essentially assigned KM the same in-depth risk study task as set out in Order 32/09. The purposes of KM's retainer is set out in page 52 of Order 32/10 and include review and evaluate all relevant available reports and supporting data, systems, models, and analysis which address risk management or contain information affecting risk management for Manitoba Hydro. Dr. Magee commented on the breadth of the assignment, saying:

> "The terms of the refere -- the terms of reference are very broad, but we also interpreted them as being flexible so that we didn't feel obligated to, say, give the last word on everything that you could possibly imagine -- imagine following -- imagine -- you could possibly imagine falling under the terms of reference, which would be impossible."

And that's found at transcript page 5,877.

Interestingly, whether the consultant

refined the terms of reference due to threat of litigation or as a necessary step in the assignment, the main focusses of their reports were the same, drought, Manitoba Hydro's models, and the middle office. This strongly supports the view that there is -- there exists no issues of independence or credibility arising from the changes to KPMG's terms of reference. The PUB got the product they requested from both KM and KPMG.

That the risk witnesses separately determined how they would tackle a similar assignment, were each provided open access to the data required to do so, and came to, in almost every instance, the same conclusion speaks volumes to the independence and credibility of their work. Add to that the 2005 work of three (3) independent reviewers found at Appendix 74, which, as Mr. Bowman pointed out, is consistent with the conclusions of the risk consultants in this hearing, and you have a strong and credible case that Manitoba Hydro's models work well for the purposes for which they're designed.

Ultimately, there is no need to make findings of credibility nor are there issues of credibility. As Dr. Kubursi opined, it is reasonable -- it is a reasonable position for people to have different views. And in those instances where the risk consultants

came to different conclusions with each other or with Manitoba Hydro, the Board must weigh the evidence.

In terms of how to weigh those differing views, and I'd ask you here, we're at slide 69, Manitoba Hydro suggests the Board take the following considerations into account. First, did the consultant access Manitoba Hydro's models and accurate data so as to formulate their own opinions or to assess the reasonableness of Manitoba Hydro's conclusions under review? And, second, does the consultant have industry experience to understand how their conclusions or recommendations will play out in the real world.

And with that I'm going to hand the baton back to Ms. Boyd and give my voice a break for a bit.

MS. MARLA BOYD: I'm going to pick up on the topic of demand-side management, which you'll find beginning at slide number 71. DSM has been and continues to be a significant component of Manitoba Hydro's strategy in fulfilling the Corporation's mandate and responsibilities. For over twenty (20) years DSM has played a key role in Manitoba Hydro's provision of exceptional customer value, reliable supply of energy, encouraging energy efficiency, and promoting environmental sustainability.

I intend to touch on three (3) points

related to DSM. The first is the appropriate -- the use of the appropriate analysis in comparing Manitoba Hydro's DSM efforts to others, second, Manitoba Hydro's DSM targets and, third, the use of the rate impact measure or RIM.

On the first point, Manitoba Hydro welcomes any comparison of its DSM efforts with efforts of any other region provided that those comparisons are conducted using appropriate and meaningful analysis. Manitoba Hydro notes the following examples of such appropriate and meaningful analysis involving our DSM efforts.

First, the Dunsky Review, which was filed as Appendix 25. After undertaking an extensive review of Manitoba Hydro's DSM efforts, the Dunsky report notes on pages 6 and page 24 that, and I quote:

> "Manitoba Hydro has long been considered among Canada's leaders in energy efficiency incentive programs thanks in large part to both a strong corporate commitment and a stable long-term planning perspective."

The second such effort is the Canadian Energy Efficiency Alliance or CEEA. This leading non-government energy efficiency advocate awarded Manitoba an

A-plus -- Manitoba Hydro an A-plus, the highest rating awarded in any province or territory in the most recent -- recent national report card on energy efficiency. This was the fourth consecutive report card covering eight (8) years that Manitoba either led or tied for first place in the national rating.

Third, the comparison to Xcel's DSM offerings, which were filed in this proceeding as Manitoba Hydro Exhibit 142. This is a detailed analysis which was undertaken, comparing Manitoba Hydro's program with Xcel Energy's programming. Notwithstanding that the analysis identified differences between the two (2) utility offerings, overall Manitoba Hydro's DSM efforts are very comparable to the efforts of Xcel Energy, who are identified by both Mr. Chernick and Mr. Dunsky as a leader in energy efficiency.

During this hearing and in past regulatory hearings Manitoba Hydro has been criticized for its DSM efforts. This criticism was based in part on simple analysis using inappropriate and misleading metrics such as those which were employed by Mr. Chernick. Comparing savings and spending rates between utilities in different regions with varying loads and regional differences can and does lead to misleading and ambiguous results.

The Dunsky report recognizes the potential

for misleading and ambiguous results based on these types of comparisons on page 27 at Appendix 25 of the filing. Specifically, Mr. Dunsky undertakes a similar analysis but includes some other metric comparisons such as electric percent of revenues. The electric percent of revenue metrics suggest the opposite of what the saving and spending rate metrics suggest in terms of Manitoba Hydro's leadership position. Mr. Dunsky, who is highly regarded by this Board and by Intervenors, cautions in his report that the reader ought not to draw conclusions based solely on savings and spending rate metrics.

Manitoba Hydro agrees with Mr. Dunsky on this issue. As outlined in Manitoba Hydro's rebuttal evidence on page 46, any region having a higher concentration of industrial load and/or space and heating load will generally have lower saving and spending rates irrespective of the fact that both regions may be achieving the same level of energy efficiencies within all or virtually all of the available economic opportunities. In Manitoba this impact is emphasized by the unique electric use in Manitoba for significant end uses.

Those unique Manitoba circumstances include the fact that electricity is used for hot water heating. In Manitoba water heating represents the second

largest use of electricity. And in a residential application it can represent upwards of 30 percent of electric consumption in a natural gas -- naturally gas heated home. Put another way, it adds 50 percent to the denominator of a saving rate or a spending rate metric calculation. Manitoba Hydro notes that there are virtually zero energy efficiency savings associated with this end use application and there's no other region within the US or Southern Canada where electricity is used for this application to the extent that it's used in Manitoba. This will effect the outcome of savings and spending metrics.

The other unique Manitoba factor is the use of electricity for space heating. Electric use for space heating can represent upwards of 50 percent of total electric use in an electrically heated home. And notwithstanding that there are opportunities to capture energy efficient opportunities with insulation measures, the savings are limited to those homes still requiring upgrade and, importantly, by the percentage savings or savings rate that can be achieved of other opportunities, for example, fridges and lights. They are significantly reduced relative to the large amounts of electricity that are consumed for space heating.

I just want to walk through a simple

example that I hope will make that a bit clearer because I -- I confess I -- I puzzled it through a couple times myself. So assume that you save 100 kilowatt hours annually by selecting an energy star refrigerator. That 100 kilowatt saving in a home with no electric, space, or water heat, using about 10,100 kilowatt hours annually, represents a 1 percent saving. That same 100 kilowatt saving in a home that has electric hot water heat and uses 14,000 kilowatt hours annually is only a .7 percent saving. And in a home with both electric space heat and water heat using 25,800 kilowatt hours annually that represents .4 percent savings.

So that same 100 kilowatt hour saving appears very different when you compare the type of home that's -- that the percentage of use is -- is compared over. And, in addition to that, there are interactive effects within the electrically heated homes that are still to be considered, which further discounts the percentage of load savings.

Manitoba Hydro acknowledges that varying energy-efficient opportunities exist within different regions due to space and water heating applications, and from having different mixes of customers; for example, having more industrial customers. This emphasize's Mr. Dunsky and Manitoba Hydro's observation that caution must

be exercised in comparing metrics among regions with different load profiles.

While we're on the topic of comparisons, I want to address the comments made by Mr. Williams in his final argument, found at page 8,509 and 10 of the transcript. He said that DSM savings that Manitoba Hydro attributes to some of the more successful residential programs, such as CFLs, are considerably more optimistic than adopted by other well-respected bodies such as the Ontario Power Authority. This is contrary to the evidence that was filed by Manitoba Hydro in response to CAC/MSOS Manitoba Hydro 179C-1, which I've included a portion of at Tab 19 of the book of documents.

You'll see on page 2 of that IR response the -- the statistics that Mr. Williams was referring to. However, this demonstrates that Manitoba Hydro actually claims a lower total savings over the life of a CFL, relative to the Ontario Power Authority. Manitoba Hydro claims savings of only 247 kilowatt hours, while OPA claims 354 kilowatt hours, or fif -- 43 percent more than Manitoba Hydro's claim. As such, Manitoba Hydro is actually understating its energy savings in comparison to OPA, rather than overstating those savings, as suggested by Mr. Williams.

The second issue related to DSM that we'd

like to address involves Manitoba Hydro's DSM targets. Contrary to Mr. Chernick's initial observations, which he corrected on the record at transcript page 7,175 and 7,176, Manitoba Hydro agrees with the importance of establishing aggressive energy conservation targets. There are two (2) points related to this matter that Manitoba Hydro would like to discuss.

First, if a comparison is to be made between regions, a comparison must involve accurate and meaningful analysis of targets among the regions. As we've just discussed, using metrics based on a region's total load is misleading. Similar to using a saving rate or spending rate, Mr. Chernick's comparison uses ina -- an inappropriate metric involving planned energy savings as a percentage of total load.

To undertake a meaningful comparison of targets between regions, Manitoba Hydro is of the view that a detailed analysis would be required, which would include assessing a number of factors, including identifying all remaining economic energy-efficient opportunities within each region by technology or measure, estimating the market-attainable opportunity available for each technology and measure, and comparing how successive or aggressive each re -- region is in terms of developing a plan to capture the available

opportunities within the region. Such analysis would remove distorting factors, including differences in available opportunities within the region and misleading metrics based on varying load characteristics.

Notwithstanding that such an appropriate comparison has not been undertaken on targets within various regions, Manitoba Hydro recognizes that its longer-term targets are generally less aggressive than regions where the targets are arbitrarily set as a percentage of load, which brings me to the second point to consider: Is Manitoba Hydro's method of establishing the targets appropriate?

Manitoba Hydro establishes aggressive targets based on realizable and identifiable energy-efficient potential, what Mr. Kuczek described as a bottom-up approach. This approach is supported by detailed market potential studies of energy-efficient opportunities and detailed research on individual opportunities. Manitoba Hydro's approach appears to be interpreted by some critics to mean that the company is not committed to establishing aggressive targets in the future. We disagree. Manitoba Hydro's approach is a well-established, industry-accepted approach, and has been used for many years, and is founded and supported by logic and rational business planning.

Manitoba Hydro recognizes that a number of regions have recently been driven to use arbitrary targets based on percentage of load. These targets are generally established by third parties without any supporting analysis. Manitoba Hydro recognizes that these percentages may be achievable in the short term within some region; however, as the energy-efficient opportunities are captured over time, long-term achievement of those targets is questionable.

Manitoba Hydro has consulted with two (2) utilities who have had such arbitrary targets imposed. In inquiring as to how those utilities expect to achieve the targets post the 2015 timeframe, both responded with similar answers: They didn't know.

The targets established are important, and they must be rational and achievable, because Manitoba Hydro incorporates those expectations in its integrated resource planning process. The Corporation makes significant long lead-time decisions on the capital investments based on the integrated resource planning process, using a forecast of energy demand adjusted for expected energy savings, realized through the DSM investments. The use of the arbitrary target for DSM would impact the integrity of our long-term integrated resource planning process, and the timing of significant

investment decisions by Manitoba Hydro could be made inappropriately.

Manitoba Hydro is committed to establishing aggressive, but not arbitrarily set targets. In an effort to establish identifiable and meaningful targets, the Corporation has recently undertaken a number of activities, including hiring Mr. Dunsky in a brainstorming exercise to identify potential opportunities for additional opportunities. It's important to recognize that this was a brainstorming exercise, and therefore a number of recommendations suggested pursuing or further investigating opportunities. These recommendations were made without detailed supporting analysis on the economics of the opportunities.

Manitoba -- Manitoba Hydro also undertakes con -- continued participation in the Canadian DSM alliance, which focusses on sharing experiences on capturing additional energy efficient opportunities, both today and in the future, with discussions held around the issue of diminishing opportunities in the distant future.

We also compare energy efficient opportunities being pursued by other leading edge utilities in North America. For example, Manitoba Hydro provided a comparison of the programs it offers with

those of other utilities in the chart at page 49 of our rebuttal evidence.

Manitoba Hydro is currently in the process of undertaking an updated DSM market potential study. The result of this exercise will provide support for a revised Power Smart plan with identifiable eco -- and economic energy efficient opportunities, and has retained a US consultant for this purpose.

Turning to slide 7 -- 73, I would like to address the use of the rate impact measure, or RIM. This is the final point to be addressed in this area, and it's to respond to the suggestion by RCM/TREE that the RIM test be eliminated.

Manitoba Hydro recognizes that some confusion arose out of its use of the RIM test when the Dunsky Review was undertaken. The issue was discussed with Mr. Dunsky, and Manitoba Hydro has made an attempt to clarify the position -- the Corporation's position regarding the use of the RIM test. Unfortunately, our messaging and communication on that point has been unsuccessful with some participants.

Manitoba Hydro does not use the RIM test solely to determine a program's viability, or for screening energy efficient opportunities. Manitoba Hydro uses a number of cost effective tests to assess energy

efficiency opportunities. Each of these test provides useful information, and all tests are collectively used in making decisions on whether to pursue a specific energy efficient opportunity, how aggressively to pursue that opportunity, and on the most effective DSM program design to adopt.

The marginal resource cost and the total resource cost tests are used primarily as screening tools for assessing what opportunities to pursue, regardless of who pays. The levelized utility costs, the RIM, and the customer payback are used in aggregate for determining the appropriate investment level between the utility and the participating customer.

I confess I was something surprised by Mr. Williams' suggestion that Manitoba Hydro's DSM program has not demonstrated a commitment to maximizing benefits for customers, such that in his clients' view the interim relief granted for the 2011/'12 fiscal year ought to be reduced. He did so having skipped over the positive recommendation findings on page 75 of his written argument, that Manitoba Hydro staff in the DSM area and the broader Corporation, have a strong commitment to developing and maintaining industry best -- best practices, that Manitoba Hydro has a relatively strong historical reputation, along with BC, Ontario, and

Quebec, in offering relatively strong programming in the Canadian context, and that a literature review, such as his own witness, Dr. Carter, would identify some favourable commentary about Manitoba Hydro and energy efficiency.

Mr. Williams instead focussed on the suggestion that our programs, such as CFLs, are more optimistic than other jurisdictions, which I've already noted is not supported by the evidence, that participation rates are lower, and based on Mr. Chernick's suggestion that DSM program spending is -- is spending less and aiming lower, which, as we have noted, is a function of setting realistic and achievable targets, and recognizing that as more and more opportunities are realized, the number of unrealized opportunity will diminish. Simply put, there are only so many light bulbs that can be replaced.

Given the ongoing efforts of the Corporation, it is re -- its recognized position as a leader in the area of DSM and the steps taken to explore new opportunities, Manitoba Hydro submits that CAC/MSOS's suggestion is without merit.

(BRIEF PAUSE)

MS. MARLA BOYD: Mr. Chairman, we -- I'm moving into a new area, and I wonder if we might take just a short break. I need to consult with my colleague.

THE CHAIRPERSON: Very good.

--- Upon recessing at 2:26 p.m.

--- Upon resuming at 2:44 p.m.

THE CHAIRPERSON: Okay. Welcome back. I think it's Ms. Boyd now.

MS. MARLA BOYD: It is. Thank you. I wanted to turn to the topic of low-income affordability. And I've been encouraged by some of my colleagues to be brief, so I will do my best, but I do -- I think there's important issues here that we need to canvass, so.

MR. ROBERT MAYER: Can -- can we make it a little more helpful on something like this. We know about the Dalhousie case. We know about the -- the Advocacy Centre case. We know Hydro's position with respect to -- to its mandate. And RCM/TREE has apparently conceded that they don't want Hydro to run the program anyway, and the recommendation, as I understand it, is they want the Board to take this on -- design it and -- okay, design it.

In any event -- so that seems to be where

the issue's at, at this point. Do we have in our -- in our rate setting mandate and the -- I tend towards RCM/TREE's definition of our mandate in rate setting. And I think we also have the ability to set out class -- rate classes.

What is Hydro's position if the Board were to decide that it wanted to do that and were to set up a rate class as defined as a low-income or energy poverty based upon some percentage, or on LICO itself?

(BRIEF PAUSE)

CONTINUED BY MS. MARLA BOYD:

MS. MARLA BOYD: Let me approach that this way. We have provided for you the statutes -- the statutory provisions that we think are relevant at Tab 20. That includes the Manitoba Hydro mandate, which you've indicated to me you're familiar with.

You will note in the review of that that it -- it pro -- it provides the ability for -- or the requirement for Manitoba to promote economy and efficiency in the development and the generation transmission distribution and in supply of power. It does not, however, extend to issues associated with affordability. We see that as -- as a distinction.

And we've also included Sections 39(1) and 39-2(1) in that Tab 20. And I won't read them for you, you're familiar with them, but I think it's important to look at those together. And it says, essentially, that:

> "The rates charged for power supply to a class of customers shall be the same throughout the province. And read with the other sections, Manitoba Hydro has a clear obligation to recover its costs to supply the power, and in doing so, it must charge equalised rates to each class of customer."

I need to respond to Mr. Gange's suggestion that Section 43(3) can be addressed by removing from this class of customers, or the -- the potential beneficiaries of such a program, those customers who are already on social assistance. And he suggested that that meant then there was no longer a concern that the funds of the Corporation would be used for the purposes of government.

However, in our respectful view, essentially what RCM/TREE is suggesting is that the PUB create another layer of social assistance, offering benefits to those who don't otherwise qualify for social welfare funding. They've been described in this Hearing

as the working poor. That doesn't avoid the prohibition in Section 43, which says that:

> "You shall not use funds for the purposes of government."

And we view social welfare, social services, as being part of the purposes of government. The fact that those people don't qualify doesn't mean that those -- those funds wouldn't otherwise be used for the purposes of government. Creating a new layer of social service is indeed using those -- those funds for the purposes of government.

You've also suggested that you prefer Mr. Gange's view of the legislative mandate of this Board. And I would suggest to you that there's a distinction between the legislative mandate of the Board and the discretion in which you have in terms of the powers that you exercise. Although the Nova Scotia Court of Appeal case is based on different legislation, the mandate of that Board is remarkably similar to the mandate of this Board. And I would suggest to you that the legislative mandate, particularly in Manitoba, is very narrow.

It's restrict -- restricted by Section 26(1) of the Crown Corporation Public Review and Accountability Act, and that is to review and approve rates. The broad discretion which you have is in section

26(4), and that provides for the factors that you can consider in approving those rates. I summed it up as being a broad discretion in fulfilling a narrow mandate, but not a broad mandate.

Mr. Gange referred yesterday to Section 26(4), Roman Numeral VIII, which says that:

> "The Board may consider any compelling policy considerations the Board considers relevant to the matter."

I would note that thi -- this gives the Public Utilities Board the jurisdiction to consider policy in determining the rates. It does not provide the jurisdiction to set policy using electric rates. And in Manitoba, based on the existing legislation, the Legislature has reserved to itself the right to set social policy, which is not expressly granted to the power of the Public Utilities Board.

In terms of your suggestion that you create a new rate class of low income customers, however that would be defined, I would submit to you that it is within the provisions of Manitoba Hydro's legislation for it to establish the classes, and to bring the rates for classes of service to the Public Utilities Board for their review and approval. To suggest that classes can be set on a car -- on a criteria which have nothing to do

with the characteristics of the usage of power is beyond the mandate of Manitoba Hydro and we submit it's beyond the mandate of this Board as well.

Ms. Ramage notes that the Board -- the Board -- the Manitoba Hydro Board, in Section 28, has the ability by regulation to prescribe the terms and conditions upon and subject to which the Corporation will supply power to the users of power supplied to it. That would suggest that the Manitoba Hydro Board of Directors would have within its domain the ability to establish the -- the classes of customers that it would serve, and the terms and conditions upon which they would be served.

MR. ROBERT MAYER: That sounds like a bit of a stretch, but okay. I have your argument on that.

MS. MARLA BOYD: I guess I'm puzzled by that comment. The -- the statute is quite clear that they have been given by regulation that power, so it -- it is a legislative piece.

MR. ROBERT MAYER: The terms and conditions I understand.

(BRIEF PAUSE)

CONTINUED BY MS. MARLA BOYD:

MS. MARLA BOYD: I think the -- the --

the appropriate items to be considered are classes of customers that are identified on their energy usage or consumption characteristics, and that anything beyond that is -- you've -- you've fallen back into the realm of social policy, which is properly reserved to the Legislature of the province.

I wanted to address RCM/TREE's suggestion in its written submission, although it wasn't raised yesterday, that Manitoba Hydro may have at one time believed that a low-income assistance program was reasonable, or to use their words, "at least not illegal."

In support of that RCM/TREE cited at the bottom of their written submission Manitoba Hydro's request for review and variance in which we requested that PUB defer the date for the submission of a report on all low-income bill assistance program. And I want to be very clear, Manitoba Hydro has never taken the position that a program such as being proposed by RCM/TREE, and particularly it's the rate affordability section there, is reasonable, is within the mandate of Hydro to operate, or is within the mandate of the PUB to direct. And you will find, if you review the record of Manitoba Hydro's rebuttal evidence in the 2008 electric GRA, or in Centra's final argument in the 2007/'08 gas GRA, that

that position has been taken consistently by Manitoba Hydro and Centra Gas.

In requesting a delay for filing a report on bill assistance, Manitoba Hydro was in no way acknowledging the legality of such a program, and was in no way prejudging the content of such a report, or whether the report would propose a program at all.

I think aside from the question of whether or not the PUB has the jurisdiction to direct such a program, there's the question of whether the PUB ought to direct such a program. And that was the -- that's where the Ontario Division -- the Ontario Energy Board cited their confusion and that was recognized by the Ontario Court that that was an issue that they could consider.

RCM/TREE has suggested that rate affordability program is only in degree different from all customer classes receiving the benefits of export revenues to subsidize rates. And Manitoba Hydro cannot agree with that characterization. An important distinction is that export revenues are applied to all customer classes within Manitoba Hydro's distribution system, and all domestic customers receive a share of the be -- export revenue.

In the case of the affordability rate program, which is proposed by Mr. Colton and endorsed by

RCM/TREE, the PUB is essentially being asked to play Robin Hood, to take from other customers, albeit not all the rich, and to give to the poor. This was admitted by Mr. Colton in cross-examination, that the so-called rich that will be asked to pay for this program include seniors, nursing homes, schools, single mothers, and other ratepayers, some of whom will only narrowly miss qualifying for the program themselves. You'll find that at transcript pages 5,040 -- sorry, 7,052 and 7,053.

Although Mr. Colton offered a discussion of cost effectiveness, it's clear from his definition that this program is not cost effective as we understand the word to mean in this forum. He stated at page 6,906 of the transcript that a business case is not seeking to quantify all of the costs of the low-income affordability program, and to quantify all of the benefits or cost reductions accruing, and endeavouring to show that the cost reductions generated by the program exceeded the costs of the program.

Both in his direct evidence on page 6,907 and in response to cross-examination at page 7,041, Mr. Colton admitted that there is no argument that a low-income program will be cost-free on net; that is to say, there will be net costs associated with the program. Mr. Colton agreed with the finding of the 2007 APPRISE paper

included in his evidence that, and I quote:

> "We've not found any evidence to either support or refute the hypothesis that programs can be cost neutral; however, based on their design, certain programs are unlikely to be cost neutral."

This is self-evident from the fact that this program requires that rates be increased. Mr. Colton has recommended a fixed-meters charge to be recovered from all classes. In fact, as we've demonstrated during cross-examination and the subsequent refiling of PUB/RCM/TREE-7, which was filed as Undertaking Number 164A, the costs of the proposed program may in fact be higher than Mr. Colton originally calculated, and we appreciate the candour of both RCM/TREE and Dr. Colton in that regard. Based on an affordability standard of 6 percent, the costs of the program could approach $50 million every year.

It's very important that that evidence is clear in the Board's mind. The response to that undertaking is not a calculation of savings; it's a calculation of costs. This is the amount that would need to be recovered from all ratepayers in the form of a rate increase, and based on a rough calculation of $10 million being equivalent to 1 percent, that could mean an

increase in the order of 5 percent across the Board, over and above the rate increases sought in this application.

MR. ROBERT MAYER: Well, you don't have to go much further on the issue of whether or not it's -- it's a revenue neutral or a -- Mr. Colton -- and I think everybody recognized that his calculations were incorrect, and I -- I think we all know the impact of that.

CONTINUED BY MS. MARLA BOYD:

MS. MARLA BOYD: Thank you for that. I think it -- it should be noted as well that the administrative costs, I think, are now generally accepted to be somewhat higher in the program than were originally described by Mr. Colton -- by Dr. Colton. That's in large part because the target audience has been somewhat revised. Removing those who are means tested from the program removes the simplest and most efficient way for a utility to verify its customers.

The customers that are referred to as the working poor and identified by Dr. Carter to be more transient in terms of moving in and out of poverty, we agree that -- with the Vice-Chair's comments that that's a good thing; however, it does increase the administrative costs and the challenge of recertifying

those customers.

We would submit that, even if you find that you have the jurisdiction, the rate affordability proposal is not in the interests of consumers, as the costs associated with the program will be significant and will have a negative impact on the rates of the majority of Manitoba Hydro's ratepayers.

Manitoba Hydro believes that the best way to assist lower-income customers is to continue providing energy efficiency, bill management, and crisis intervention programming. The lower-income energy-efficiency program provides sustainable, long-term solutions to customers by improving energy efficiency of the home, resulting in ongoing reduced compensation -- sorry, consumption and lower energy bills. The current bill management program offers support to customers who are having difficulty paying their bills by offering options to spread the payments out to a more manageable time period.

CAC/MSOS suggested in closing argument that it found merit with the arrears management portion of Dr. Colton's proposal, and we note that Manitoba Hydro already offers this assistance to customers, albeit not to the same drastic levels that are suggested by Dr. Colton.

As the Board is also aware, Neighbours Helping Neighbours assist customers who are experiencing hardship and who are at risk of disconnection by providing funding towards their bill, and more importantly, those customers are put in touch with the Salvation Army who will work with them to access other programs which might improve their situation.

Manitoba Hydro agrees with Mr. Ganges' comment on Tuesday that we are not here to solve the problem of poverty. We have pondered why RCM/TREE has suggested that the rate affordability program, as it appears to work against what we understand to be their primary objective, to promote conservation through the use of appropriate price signals to customers.

More to the point, however, one can't look at an energy afford -- affordability program without looking at poverty as a whole. Energy affordability is part of a much larger, more complex social platform, and government and other related non-government entities must be involved to ensure there's no redundancy between a utility energy affordability program, and other soc -- social welfare or assistance programs. Leveraging existing programs and the knowledge of stakeholders who are working with lower income customers is crucial. Mr. Carter brought that expertise and a broad view to the

Hearing, and his experience in studying poverty for over forty (40) years should not be dismissed out of hand.

Mr. Chairman, in your closing remarks on June 9th, you posed a question which we have listed as Tab -- as number 31 in our Tab 1, as to what the gross and net cost of the program would be. I believe we've covered the issue of the gross cost with respect to the filing of that exhibit. And in terms of calculating the benefits associated with the programs, we concur with Mr. Colton in his response to PUB/RCM/TREE-13A through C, that it would be too difficult, and in his words, "not a useful exercise to attempt."

Manitoba Hydro concurs with this assessment, as it relates to customer costs and with respect to utility benefit, would anticipate only a very marginal reduction in collection costs would be possible, which would be overshadowed by the administration costs of the program.

And, Mr. Chair, you also posed the question listed as number 32 in our book of documents, as to whether non-utility costs and benefits should be included in any cost benefit analysis of a low income rate affordability program offered by the Utility. Manitoba Hydro is of the view that non-utility costs and benefits, if they exist and can be accurately measured,

could be included in a cost benefit analysis; however, such a societal benefit cost metric should be used appropriately.

Similar to analysing DSM programs, a societal benefit cost test is appropriate for assessing the holistic benefits relative to costs associated with an opportunity. However, the metric is inappropriate in determining a specific entities' level of investment in pursuing the opportunity. The appropriate metric for determining an entity, for example the government, the Utility, the ratepayer, or a participating customer, investments should only include the benefit and cost relevant to that entity.

With respect to the final question posed by the Chair in this area, you asked whether low income programs should be run by agencies outside the utility. Manitoba Hydro's response to that question will depend on the type of program under consideration.

Manitoba Hydro has been quite clear that it does not have the mandate or the information necessary to run a rate affordability program. However, with respect to low efficiency programs -- low income energy efficiency programs, Manitoba Hydro is well equipped, both with infrastructure and expertise, to run the program, and concurs with the comments of Dr. Colton and

Mr. Carter that such programs need to be integrated with programs with the same or similar populations. To that end, Manitoba Hydro has been working with community groups, government agencies, not for profit organizations, including CAC, the Manitoba chapter, and RCM/TREE, both of which have members on Manitoba Hydro's advisory group.

It is worth noting Dr. Carter's evidence on pages 800 -- 8,007 and 8,008 of the transcripts, that the province of Manitoba, and specifically Manitoba Hydro, is considered to have one of the most comprehensive approaches to addressing energy poverty in Canada.

And with that, I'll leave the topic unless you have any questions of me, and I'll hand the mic back to Ms. Ramage.

MS. PATTI RAMAGE: I am going to be dealing with the issues of rate design and rate administration, and hopefully getting close to -- I can tell you the end is in sight.

We're up to slide 82. There were numerous rate design proposals, or rate design issues, that were explicit or implicit in Manitoba Hydro's Application, or which were raised by participants during this proceeding, or by the Chair in his remarks which -- that he made at

the conclusion of the evidentiary phrase (sic).

The Chairman's question number 29 asked the parties to comment generally on rate changes as they may deem advisable. Other remarks by the Chair were directed at specific potential rate changes. I'll deal first with the Basic monthly charge; that was the Chairman's question number 34.

Manitoba Hydro applied for a reduction in the residential Basic monthly charge from the current -- or from the then current six dollars and eighty-five cents ($6.85) to five dollars and eight-five cents ($5.85), effective April 1st, 2010, and to four dollars and eight-five cents ($4.85), effective April 1st, 2011.

Manitoba Hydro advised the Board and participants that the proposed reduction was consistent with the Corporation's demand-side management objectives and would be generally favourable to low-income customers. And you'll find that at PUB -- or Manitoba Hydro's response to PUB/Manitoba Hydro Second Round 182B.

During the proceeding though, Mr. Warden indicated that Manitoba Hydro accepted the PU's -- PUB's judgment in the 2010 interim order and that the basic monthly charge should not be reduced, and Manitoba Hydro would, therefore, not be pursuing the reduction in this Application. Mr. Warden's evidence in that regard can be

found at transcript page 414 through 415.

The Corporation's original Application requested that most of the residential increase for both years of the Application be recovered in the over 900 kilowatt hour per month block of the energy rate. The proposed rate structure evolution towards steeper inversion was the -- was intended to move the price for usage above 900 kilowatt hours per month towards the marginal cost of providing that energy, and thereby induce greater conservation by the residential class.

The PUB in its approval of the interim rate increases in Order 18/'10 reduced the extent of the inversion proposed by Manitoba Hydro for April 1st, 2010, and in Order 40 of '11 reversed all the inversion in the rates and directed a single rate block for the residential class. Manitoba Hydro is not seeking any further changes to the rate structure, as implemented in Order 40/'11 at this time.

The Chairman's remarks noted as Question 35 raised the issue of rate class consolidation. In Order 150 of '08, the PUB directed Manitoba Hydro to continue the process of consolidating the general service small and general service medium custor -- customer class rate structures, and to provide the Board with a proposal for a stepped up program and a timeframe for completion.

And here I'm up to slide 83.

Manitoba Hydro filed its plan to consolidate the two (2) rate classes on July 31st of 2009, and included the plan in its GRA as -- as Appendix 13.8. That plan demonstrated that considerable progress had been made with respect to cons -- consolidation, but there remained the task of consolidating the first block energy rate and the basis monthly charge.

In Tab 10 of the Application it was noted that the April 1st, 2010, proposed rates for the small and medium classes reflect a fully consolidated energy and demand charge. Those rates were approved on an interim basis in Order 18 of '10. The remaining gap is in the base -- is in the monthly basi -- basic charge.

With the interim rate increase on April 1st of 2010, that gap was reduced to two dollars and ninety-five cents ($2.95) between the basic monthly charge for three (3) phase general service small and the basic monthly charge for general service medium. With the April 1st, 2011, interim increase, the gap was redurs -- reduced to two dollars and five cents ($2.05). It is expected the gap will be fully closed with the next General Rate Application.

There's been no suggestion that the class consolidation is improper or that Manitoba Hydro has not

carried it out correctly. The Board has had a -- previously endorsed consolidation. Manitoba Hydro submits that its consolidation has been substantially completed. The issue is now effectively resolved.

The issue of limited use of billing demand rates is also in the Chairman's question number 35. Manitoba Hydro's application proposed only one (1) change to the structure of the LUBD rate. That is the first KVA's of billing demand be exempt for medium LUBD customers, to be consistent with small LUBD customers and other general service small and medium classes. Other than that, the LUBD retains its fundamental structure of having a demand charge set equal to 25 percent of the demand charge of the corresponding regular general service class, and an energy rate set that a customer would be indifferent between LUBD and the regular class at a billing load factor of approximately 18 percent.

The LUBD rate was not addressed during the entire proceeding by any proce -- by any participant. Manitoba Hydro submits the rate structure as proposed should be accepted.

Similarly, no Intervenor opposed the approval of the SEP or curtailable rate program ex parte orders. Manitoba Hydro request all such orders up to the date of the Board's order in this proceeding be approved

as final. A full listing of the orders is provided in Manitoba Hydro's book of documents at Tab 23.

One (1) matter Manitoba Hydro does wish to address with respect to SEP, is the PUB's concerns in the past with respect to Manitoba Hydro making off-peak summer sales to both SEP and export customers.

On April 28th, 2009, the Board issued Order 57 of '09, approving the extension of the Surplus Energy Program to March 31st, 2013, and, at that time, requested an explanation and justification for continued sales of off -- off-peak overnight summer exports.

Manitoba Hydro believes it's provided the explanation and justification sought by the PUB in its report filed March 4th, 2009, in particular, pages 10 through 13 of that document. In addition, we have Mr. Cormie's evidence regarding summer off-peak sales at transcript page 8,119, which was not challenged on the record, and it is worth reviewing here. Mr. Cormie said:

> "We only sell in the off peak in the summer, because we can't store it, the reservoir is full. Lake Winnipeg is above seven fifteen (715) and you're forced to make the reservoir releases. The water going -- the water's going down the river. If we have the offer -

- opportunity of salvaging the value by selling it for a cent, we will. We'll take the cent rather than spilling it. But it's not because we have chosen that the one (1) cent is a profitable transaction compared to the alternative of carrying it over into the winter. We would carry it over to the extent we could."

So Manitoba Hydro submits that there's enough information on the record at this proceeding to conclude that the PUB's concern regarding export and SEP summer off-peak sales has -- has now been resolved.

But I see the Chairman at the mic, so if I'm -- if we're not there --

THE CHAIRPERSON: Well, I'm just drawing back on a -- on a -- on a memory on this. I suggest to you perhaps the -- the major concern on that was -- and it actually gets into your -- your contract limitations, but whether it benefits Manitoba Hydro in the long haul to sell at such prices into the market, as to whether or not it -- it effects the market to any degree that it disadvantages Manitoba Hydro in the long haul.

MS. PATTI RAMAGE: Well, we would be selling to SEP customers who are Manitoba customers, so

I'm not clear -- we -- we would not sell at overnight rates, at these low rates, at a loss to Manitoba Hydro. It's still recovering Manitoba Hydro's costs; they're just very small at that point. But it would not affect Manitoba Hydro in the export market at all, because that power -- in terms of the SEP power, I'm not...

THE CHAIRPERSON: I -- I think -- I think you've actually hit the point. I think -- I think the main -- the main thing that was lying behind it was the concern of selling, making opportunity sales at that price, whether or not it was advantageous to Manitoba Hydro in the long haul, sort of like -- I'll give you a real life example. The Salisbury House on Tuesdays sell -- you buy one (1) thing, everything else you get for ninety-nine (99) cents, so I -- I understand from some of my friends that frequent the place fairly frequently, that the only time they go is Tuesday.

(BRIEF PAUSE)

MS. PATTI RAMAGE: Yeah, and I think the key in the export market is we don't set the price in the export market. We're in for such a small percentage that that isn't going to make a difference. They're not going to be -- no one's sitting waiting for Manitoba Hydro.

And another aside I would have, because I recall having this conversation myself with Mr. Gaudreau some time ago when -- because this doesn't happen often, but I remember Mr. Gaudreau being concerned about this. And at the time there was transmission constraints that didn't allow us to send the power to the States, and -- and that was one (1) of the reasons it was so low.

And so there's some other factors at play too. So in that case it was spill the water or give it to a Manitoban at that -- at that price.

THE CHAIRPERSON: Thank you.

CONTINUED BY MS. PATTI RAMAGE:

MS. PATTI RAMAGE: Which, as I say, would still -- Manitoba Hydro would still be ahead as opposed to the spill.

Next I'll move on to demand energy rebalancing, which refers to the PUB's interest in Manitoba Hydro's recent efforts -- I should say this is slide 87 we're up to -- to gradually recover a greater share of general service class revenues from energy charges, and a correspondingly lesser share from demand revenues.

Manitoba Hydro filed its plan to rebalance on July 31st, 2009, and included that plan as Appendix

13.7 to its current application. That document noted that between 2003 and 2009 demand charges had either decreased or remained unchanged for all demand billed general service rate classes, while energy charges have increased between 28 percent and 36 percent, depending on the class.

The interim rate increases implemented in 2010 and 2011 have continued this process of rebalancing, and that all of the increase to the general service classes has been applied to the energy rates.

In his evidence, on behalf of RCM/TREE, Paul Chernick, beginning at page 36, takes issue with embedded costs as a benchmark for demand energy rebalancing. Indeed, Mr. Chernick does not believe that demand charges should even exist and should be entirely eliminated from the rates. And there I refer to page 39 of his report.

Appendix 13.7 of Manitoba Hydro's Application also noted that there may be scope for further demand energy rebalancing beyond the benchmark indicated by relative embedded cost shares. However, unless and until Manitoba Hydro can move to a new rate platform which incorporates time-of-use energy charges for all currently demand-billed classes, Manitoba Hydro submits that the current approach, gradually increasing

the emphasis of energy in the recovery of the revenue requirement, is appropriate.

Time-of-use rates have been the subject of discussion at past GRAs and Manitoba Hydro understands the Board continues to have an interest in them. We believe that time-of-use pricing is consistent with the variation in marginal energy costs among time periods, and in theory may be applicable to most customer classes served by Manitoba Hydro.

Manitoba Hydro believes that developing, piloting, and implementing time-of-use rates, if it is to be undertaken, should begin where the -- where such rates are most easily implemented: that is, with the large industrial customers who are typically more responsive to price signals, are more sophisticated energy users, and who have the required metering infrastructure already in place. If and when time-of-use rates are successfully implemented among Manitoba Hydro's largest customers, the lessons and experience gained thereby can be applied, if appropriate, to similar rate initiatives for other customer classes.

Time-of-use rates were not extensively discussed during the hearing portion of the current proceeding. Manitoba Hydro's current Application didn't include a proposal for a general time-of-use rate for any

class.

The Corporation is currently in consultation with its large energy-using customers over a range of industrial rate and service extension topics, including time of use and energy-intensive rate possibilities. And that brings us to the Chairman's question number 27, which was an invitation to the parties to comment on the need for, and prospects for, future energy-intensive indu -- a future energy-intensive industry rate.

MR. ROBERT MAYER: Don't -- don't leave time of use yet so quickly.

MS. PATTI RAMAGE: Oh.

MR. ROBERT MAYER: There was, in fact, some comment on time-of-use rates by me, and I asked a couple of questions, and I forget who I was even talking to at that point in time, this hearing's been so long, but is the -- listening to your argument today -- I remember who I was talking to. It was to RCM/TREE when they were -- when I was making the argument that the only place where there's any elasticity is the ability of people to move their ener -- move their usage around.

And is the only thing that is preventing time-of-use rates from being implemented across virtually all classes is the cost of the installation of the smart

meters?

(BRIEF PAUSE)

MS. PATTI RAMAGE: Mr. Vice-Chair, as you can see, I needed assistance from -- from the back row for that one, so what I can tell you is that certainly is one (1) issue, and it's a big issue, but there is a number of issues that relate to administration, customer acceptability, and those type of issues, which Manitoba Hydro would look to try to resolve with that biggest customer group first, moving forward, and then learn the lessons. But -- but it is much more complex than simply just the meters, but the meters are certainly a big issue, too.

MR. ROBERT MAYER: Thank you.

CONTINUED BY MS. PATTI RAMAGE:

MS. PATTI RAMAGE: The Chairman had two (2) questions with respect to energy-intensive industry rates. I think I covered the first. The second was the invitation to comment on whether or not it's prudent to delay consideration of the energy-intensive industry rate.

Manitoba Hydro's ongoing discussions with

MIPUG and industrial customers are focussed on industrial rates, rate design, and supporting policy generally, not only on the specific form of an energy-intensive rate. A rate application emerging from this consultation may or may not include an energy-intensive rate -- rate-like rate, but it will be directed at the issues which lead Manitoba Hydro to originally file its Energy Intensive Application, and the concerns by the Board expressed in Order 112/09.

The energy intensive rate raises particularly difficult issues related to fair and equitable treatment of new versus existing customers, and new versus existing load.

It may not be possible to resolve all issues within the framework of a single rate proposal. While it's prudent to resolve these issues as expeditiously as possible, it would not be prudent to simply refile an application substantially similar to that advanced in February of 2010.

Manitoba Hydro requests the continued patience of the Board and Intervenors while it completes the ongoing consult -- consultations, and works towards the best possible solution to issues raised by the gab between current industrial rates and marginal costs.

Dealing -- I'm now up to slide 90. In

August 2009, Manitoba Hydro applied for an interim ex parte order approving a temporary change to allow billing demand concessions to General Service large and medium customers who were experiencing reduced electrical usage directly resulting from reductions to operations caused by the economic downturn.

The concession program was intended to address potentially negative impacts of Manitoba Hydro's demand energy rate structure where operations were curtailed for the purpose of matching output to market demand. And there I refer you to Manitoba Hydro's response to PUB/Manitoba Hydro First Round 167.

Affected customers significantly reduced energy usage due to batch processing were unable, but were -- they were unable to reduce their demand. Consequently, the unit energy cost increased, in some cases significantly. See, for example, the unit cost depicted for primary middle sectors ranging up to eighteen cents (.18) per kilowatt hour in Manitoba Hydro's response to PUB/Manitoba Hydro First Round 165A.

Manitoba Hydro's demand energy rate structure is useful in signalling the value of both energy and capacity to customers, but it was not designed for sustained periods of sig -- significantly below normal customer operations.

The proposed concession was to work by capping the unit energy to qualifying customers at not more than 10 percent higher than the average price based on their operations during a baseline period, the twenty-four (24) month period ending August 2008.

In Order 126/09, the PUB approved on an interim ex parte basis a partial payment deferral program for qualifying GSL and GSM customers based on the formula proposed on Manitoba Hydro's Application. The partial deferral was to be carried on Manitoba Hydro's books at Manitoba Hydro's short-term borrowing rate.

The Corporation was approved to offer the concession for the months of June through November 2009. Manitoba Hydro provided the PUB with reports on the number of eligible customers, the number of applying and participating customers, and the affected revenues, energy, and demand.

The order indicated that the Board would consider further relief when Manitoba Hydro applied for a final order on -- on this Application. Manitoba Hydro is now applying for that final order, which converts the partial bill payment deferral into a true concession as contemplated in the Corporation's original Application.

Manitoba Hydro believes this is appropriate for the following reasons, and some of these

are outlined in PUB -- or Manitoba Hydro's response to PUB/Manitoba Hydro First Round 167.

It's Manitoba Hydro's opinion that billing demand concessions were necessary to retain operations in Manitoba at a time when companies with facilities in multiple jurisdictions were closing the facilities with higher cost of operations in an effort to reduce costs and match inventories with global demand for their products.

Retention of these operating facilities in Manitoba enabled facilities to return to normal operation as market conditions improve, protecting Manitoba Hydro's investment in the infrastructure already deployed to serve these customers. Additionally, opportunities for employment and provincial economic activity are retained.

With the conclusion of the program in November 2009, Manitoba Hydro has clearly established its liabilities as they relate to the deferrals provided to eligible customers. These liabilities are well within the range of estimates provided by Manitoba Hydro. In fact, the impact on rates is less than originally anticipated.

As noted by Mr. Warden at transcript page 418, the total amount of the liability is 1.3 million, which was well below the originally estimated cost of the

program.

Further, as was noted by MIPUG this temporary concession has permitted Manitoba Hydro to continue receiving revenue from these customers, more than it would have received had it become necessary to sell the energy as surplus at a time of low spot market prices. And there I refer to MIPUG's evidence at transcript page 7,291.

Manitoba Hydro firmly believes that this concession is similar to others that it makes available to demand-billed customers. Mr. Warden noted, at transcript page 4,557 that:

> "Manitoba Hydro, within its service extension policies, does have a provision for billing concessions for unusual circumstances. Other unusual circumstances in which Manitoba Hydro has provided demand billing concessions include but are not limited to unintended demand caused by failure of equipment and lower than normal load factor due to commissioning new equipment. Manitoba Hydro and its customers definitely saw the economic slowdown of 2008/'09 as a very unusual

circumstance for which Manitoba Hydro's demand billing practices in unmitigated form were not intended."

During -- during the close of inter submissions on -- Intervenor submissions on Tuesday a couple of issues arose which I'd like to address. The first is: Should there have been some requirement for participating customers to provide fina -- financial information in support of their applications for the demand concession?

This issue was first raised in Order 126/09 beginning at page 14 in which the Board indicated that this was some additional information that may be considered for finalisation of the order. Manitoba Hydro was quite clear on this matter.

In response to PUB/Manitoba Hydro First Round 167B, Manitoba Hydro advised:

"The intent of Manitoba Hydro's Application was to indress -- was to address the negative cost implications of its rate structure on companies striving to maintain competitiveness in their markets. A company's profitability may be impacted by additional factors beyond energy costs.

> Manitoba Hydro's products and/or services may not directly relate to those factors. The Corporation's objective in providing for relief was to ensure that energy costs, which are universal to operations in all jurisdictions, not contribute to the competitiveness or lack thereof of a Manitoba based operation."

There was, therefore, no requirement for a qualifying customer to file or have reviewed its financial information.

Furthermore, Manitoba Hydro did not want to have to involve itself in a complex evaluation of financial data to determine how distressed the customer might be and what was the degree of contribution of electrical rates to that distress.

Given the short-term nature of the program, it may not have even been possible to do with any meaningful financial screening. The program was intended to deal with adverse impacts of the rate structure under conditions beyond the normal experience.

The second issue that was raised on Tuesday was by the Vice-Chair regarding small -- a small nonprofit organisation not receiving that same

concession. Manitoba Hydro's not privy to the details of the case cited by the Vice-Chair, but it is unlikely the -- the unit costs of such operations were significantly affected by the economic downturn.

First, such off -- operations are often served at the general service small rate, whether they're --- whether -- whether they are either not billed for demand or whether a significant portion of their demand is not billed.

Even if they were a General Service medium or large class, where all demand is billed, they are not industrial operations whose load factors can shift radically in response to the requirement to reduce production.

In light of the foregoing, Manitoba Hydro takes issue with the characterisation which was made at several points in the hearing that this is a form of corporate welfare, transcript page 4,556, or bill affordable -- bill affordability, at transcript 5,818.

Customers who participated in this program actually saw increases to their unit price of energy accompanying their reduced use of energy. In an exchange with the Vice-Chair, at transcript page 5,818, Mr. Warden not only addressed this issue head on but provided a compelling summary supporting Manitoba Hydro's request.

Mr. Warden said:

"It certainly wasn't affordability that we were considering when we introduced the Billing Demand Concession Program for a very temporary period to deal with the downturn in the economic cycle, a very serious downturn in the economic cycle that could have forced businesses, put certain companies out of business, and that would have a direct impact on the economy of the province and people, possibly low-income, that work for those businesses. The fundamental problem though that we were addressing was that because of the structure of our rates there were some customers [and we went over that today with Mr. Hacault] that were paying sixty (60) cents and higher per kilowatt hour, and our rates were never really designed to do that, and a demand charge and an energy charge -- [or I'm sorry] and our rates were never really charged to do that with a demand charge and an energy charge. The

average was certainly never intended to go to those exorbitant levels. That's what it was trying to address.

In our policies, our customer service policies do have some provision to build -- to provide concessions for unusual circumstances that -- that arise out of our billing practices. That's what this was addressing. I think that's totally different than some kind of a low -- low-income type program for a class of customers."

And Mr. Warden went on to say:

"But if there was another segment of our population, possibly low-income, that was affected because of a quirk in our billing structure then we -- we would address it. We would -- we would address it. And I think every billing structure has to have provision for exceptions and that's what this was."

On Tuesday Mr. Williams asked that:

"If the PUB approves Manitoba Hydro's request to make the concessions final, it should do so in express recognition

that is -- it is addressing exceptional circumstances."

That is precisely the nature and intent of demand concessions at Manitoba Hydro. They are intended to address those unique and rare circumstances in which a normally good rate is producing perverse results. And, as a result, Manitoba Hydro has absolutely no objection to Mr. Williams' request in that regard.

Now I was going to move to a new topic, but --

MR. ROBERT MAYER: Don't go there, yet. I'll try to avoid the corporate welfare bum analogy again. And -- but isn't it -- there is a concept of ability to pay in the argument you just made. I just heard from Ms. Boyd that Hydro can't deal with ability to pay. I'm sorry, you can deal with ability to pay from your richest customers but you can't deal with ability to pay from your poorest?

That -- that -- I'm not going to go a lot farther with this. It was argued it was a rate design problem. We haven't seen any change in the rate design. If -- if that's the case we should be at least hearing about a change in the rate design. But, I'm sorry, when the public looks at something like this they've got to wonder what a Crown corporation, as opposed to a

corporation that has to report to its shareholders on how much money it earns, but it has -- the concept, or at least the appearance, I suggest, makes the argument that there's no ability that we can -- that you can't deal with ability to pay, somewhat suspect.

MS. PATTI RAMAGE: Sir, I have to disagree with you on the question of ability to pay because I think the whole notion -- or the whole objective of this program was on a -- a very unique quirk that occurred with this -- what normally was a good rate, that when we had an unexpected and very large economic downturn, people were paying rates that were, as Mr. Warden talked about, sixty (60) cents per kilowatt hour. That's a problem with the rate in this unusual circumstance where people are taking their batch-type processes and reducing them and then suddenly for their efforts to try to reduce and keep going, or instead of -- of getting a benefit or finding their unit cost of energy is actually going through the roof, which was never intended.

So -- and Manitoba Hydro did in fact cap that with that -- with the 10 percent in terms of it -- it wasn't a program that you could easily get into. You had to show that you had a -- a 10 percent increase. So I don't think it was an ability to pay question. It was

a -- a rate design question. And when you say fixing it, it's a good rate, it's just this one (1) situation and we need that flexibility.

In another situation that I'm aware of, the billing demand had a, I'll call it, systemic issue and that would be for enterprises like ski hills where we were finding they were getting hit with the billing demand in a way that Manitoba Hydro and ultimately this Board felt was inappropriate and we did put in a rate design change. We put in the LUBD to help those customers. And so those customers are not paying the -- the same demand rate. They're -- and they're not paying -- the small customers are not paying for their first 50 kVAs. And -- and we've put in that kind of concession.

Manitoba Hydro, because of the unique circumstances, doesn't see that there's a permanent change needed but there's a change to recognize this one (1) unique circumstance.

MR. ROBERT MAYER: I -- I have your argument, Ms. Ramage, that the 10 percent sounds an awful lot like a means test. I have your point.

MS. PATTI RAMAGE: But the -- but the 10 percent is on the change of the rate. It's not change on the ability to pay. It's -- it's that if your actual cost, your unit cost, went up by -- by greater than 10

percent. So the ability to pay doesn't -- whether a company was about to go under or whether a company was able to manage, better manage some of those changes to its processes, it -- it -- that 10 percent was just the -- the factor where we said the billing, the actual rate design at 10 percent has gone too far out of whack. So I don't think it has anything to do with their ability to pay.

MR. ROBERT MAYER: It -- it was a means test, very clearly a means test. That's what gave you access to the program. But I have your point and I'm not going to pursue that a lot further but...

MS. PATTI RAMAGE: I'd like to pursue it a little further with you though, Mr. Mayer, because I'm not understanding why you think the 10 percent in a rate, unit rate cost, becomes a means test. If it was a 10 percent cost to the customer overall but it's in their actual unit rate where we look at the amount of deviation compared to their two (2) previous years of -- of what they were paying as a unit cost.

MR. ROBERT MAYER: I --

MS. PATTI RAMAGE: So I -- I'm having trouble understanding. So if -- if you can help me understand maybe I can help you.

MR. ROBERT MAYER: Okay. In order to

access the program they had to establish that they were paying 10 percent more, 10 percent or more over their existing unit cost. That, by definition, is a means test.

THE CHAIRPERSON: If Mr. Mayer's words were just changed to say the criteria for entering the program was that.

MS. PATTI RAMAGE: It was definitely a criteria in terms of how out of whack your rate has gone.

THE CHAIRPERSON: A long -- it's been a long time since I've done cost accounting. I can fortunately barely remember some of it but the -- they usually break them down into fixed and variable costs, I'll grant you that, but in -- insurance doesn't change, despite output, property taxes don't change. There's all sorts of functions that costs don't change because of a -- of a drop in -- in production. That's true, is it not?

Like the premiums, there's fixed costs that operations incur, regardless if they're down for summer break or vacations or -- or, in this particular case, an unfortunate, more than unfortunate for an awful lot of people, circumstance.

(BRIEF PAUSE)

MS. PATTI RAMAGE: I think there's two (2) points to be made there. One is that Manitoba Hydro had the ability, through its rates, to keep people working and keep people employed and keep companies competitive through its rates, through a concession that -- that it was not out of line with its policies and which would not -- when you talk about things like the summer shutdown or something, they would not have been eligible to use this rate if their past billing practices were for those sort of things. So they would have already planned costs like that into their budgets.

It's -- this was -- this was an unexpected unit cost that they couldn't react to appropriately because when they did react to it their unit costs went up, which wouldn't be the norm.

THE CHAIRPERSON: Well, undoubtedly, we'll have to give a lot of -- of thought to this. You -- you had mentioned one (1) other part to this. You were explaining before, when you were talking about -- the lower bill assistance idea was that Manitoba Hydro, in the mandate, you weren't allowed basically to do things that governments would undertake. If your measure was -- was undertaken to prevent higher unemployment, isn't that a matter for government?

MS. PATTI RAMAGE: I -- I think it is,

except for when it's, for Manitoba Hydro, that we're going to lose money because these people are not working and we're not selling the power to them any more, then I think it -- it maybe does come within -- it becomes a greater interest to Manitoba.

And if I could just go back to your one (1) other point when you talked about property taxes and those sort of costs, in that situation you're still -- the -- the customer is still getting their garbage pickup once a week and they are still getting the same service. They might -- they might find in that case it -- it's -- it's expensive because they have to pay those same rates because of their other economic circumstances but in Manitoba Hydro's case we're not ply -- supplying the service anymore. They're not -- their -- their actual purchase of our -- our product has gone 50 percent but they're paying a higher rate. And so I think that's the difference. They're still getting -- when they pay their other service costs they're still getting the service. And in our case, they -- they were reducing their service but increasing their cost.

THE CHAIRPERSON: Well -- well, through your able services, I think that we have a pretty good grasp on the point that you're making, and I do understand the distinction that you're making from some

of the other things.

CONTINUED BY MS. PATTI RAMAGE:

MS. PATTI RAMAGE: Okay, thank you. I'm going to move to the cost of service study, which is an interesting topic in this hearing. And here the Chairman invited all parties to comment on whether or not changes to the cost of service study are required.

Manitoba Hydro believes that there are some possible changes that could be made to the cost of service study but it would prefer to advise the Board and Intervenors with respect to these matters once it has reviewed and developed a response to the independent consultant report that is being prepared on the COSS. And if -- for the record, if I say COSS instead of cost of service study, when we read the transcripts that's -- it -- it means one and the same.

It is also Manitoba Hydro's strong preference that the Board not issue any directives in its forthcoming order with respect to cost of service methods, whether on its own initiative or at the behest of any other party. Such directives would better await the filing and review of the independent report and Manitoba Hydro's response thereto.

Manitoba Hydro did file a prospective cost

of service study for the fiscal year '09/'10 as Appendix 11 and subsequently in May of 2010 Manitoba Hydro filed a prospective cost of service study, or PCOSS, for 2010/'11 as Appendix 58. In its main filing, Tab 11, Manitoba Hydro noted that it supported most but not all of the directives provided by Board Orders 117/06 and 116/08 and that Manitoba Hydro continued to have concerns that the results under the directed methodology could not be relied upon as class revenue requirement benchmarks or for rate design.

Manitoba Hydro noted further that it intended to engage external consulting services to review the cost of service methodology for consistency with cost causation, utility economics, and the range of regulatory practice in North America and, pursuant to that review, to make appropriate recommendations with respect to either maintaining or varying those methodologies. As such, Manitoba Hydro recommended that PCOSS-10 and PCOSS-11 be accepted for information only at this time because the current rate application is being filed on an across the board basis.

Manitoba Hydro's filing also reviewed PUB directives in Orders 117/06 and 116/08 and provided its response. In Tab 11 at page 3, the Corporation noted that:

> "PCOSS-10 includes a single export class that is allocated generation and transmission costs on the same basis as did domestic customers."

Manitoba Hydro continues to believe that consideration still -- should still be given to separate opportunity and dependable export classes. And this is one (1) option that will be further considered in the upcoming external review of the cost of service study.

The issues discussed in PCOSS-11 beginning at page 7 include assignment and/or allocation of the cost of thermal generation, assignment of DSM cost to the export class, forecast versus historical actual prices for export revenues, assignment of cost associated with trading desk, MAPP, and MISO. The export class, the cost it attracts, and the treatment of net export revenues are all matters that significantly bear on the cost of service results and are a focus of the independent review.

MIPUG supports Manitoba Hydro's with -- position with respect to DSM costs, here I refer you to transcript page 7,275, and the appropriate prices to include in the forecast of exports. There's transcript page 7,276. MIPUG comments on but does not take a position with respect to the assignment of cost

associated with the trading desk, MAPP, and MISO. And there I refer you to the prefiled testimony of Messrs. Bowman and McLaren at page 56.

While MIPUG took issue with Manitoba Hydro's treatment of thermal generation costs, its overall perspective on the cost of service study was that it represents a fair allocation of costs among the various classes. Both in their pre-filed evidence and again in their final submission on Tuesday at page 8, MIPUG concluded, quote:

> "The Board should rely on the results of the embedded cost of service study as a key tool for reviewing and implementing fair and reasonable rates."

End quote.

Mr. Hacault then went on to make the interesting assertion that this conclusion was not challenged during the proceeding. I'm assuming this was intended to refer to cross-examination only because Manitoba Hydro had noted in its rebuttal evidence that there were significant issues which were included in the external review of the cost of service study that could substantially affect the results.

On page 40 of rebuttal Manitoba Hydro

reviewed the PUB's directive from Order 116/08 regarding the incorporation of marginal cost into the cost of service study. While Messrs. Bowman and McLaren appear to believe that the introduction of marginal cost con -- concepts will have a limited impact on the cost of service study results, and there I refer to their pre-filed testimony at page 54, Manitoba Hydro does not want to prejudge the results of the current external review of this particular aspect of the cost of service study, nor does it wish to prejudge the PUB's review of any recommendations that may flow from that independent review.

It would be premature to conclude, as MIPUG's witnesses appear to do, that this issue will not have a material impact on the results of the study. As Manitoba Hydro noted in its rebuttal evidence, it was demonstrated during the 2008 GRA, and this is at Exhibit Manitoba Hydro 68, the impact on cost of service results is potentially considerable.

Manitoba Hydro would also point out that in significant measure the conclusions of Bowman and McLaren with respect to class revenue cost coverage ratios and their subsequent recommendations about differentiated rate changes by class rely on assumptions about the cost of making export sales and the appropriate

treatment of any net export revenues over and above those costs.

The key recommendation of Bowman and McLaren appear at page 62 of their pre-filed testimony and again in their direct evidence at transcript page 7,283. They conclude and recommend as follows. As summarized in Table 5.1, there is evidence that six (6) of nine (9) major rate classes are currently paying rates that approximate the cost to serve them or are -- or are above this level even before the allocation of any surplus export revenues. In this context, these classes largely merit a class-specific level of rate adjustment that is close to the core benchmark targeted in the respective IFF forecast. Classes that remain well below this level, notably, GSL zero to 30 kVs and residential, merit rate adjustments in excess of benchmark level.

In this context, Messrs. Bowman and McLaren appear to be suggesting that the entire allocation of net export revenues is a policy variable and should not enter into the determination of class RCC ratios and any conclusions drawn therefrom. In other words, conclusions should be based on RCCs prior to any allocation of net export revenues. This is an interesting perspective, but if it's to be taken seriously and if it's to be explored it need -- you need

to recognize that the acceptability of these results is critically dependent on getting the cost causation right when it comes to the treatment of exports.

In MIPUG's Table 5.2 on page 61 of their pre-filed testimony they purport to demonstrate the class RCCs prior to the allocation of what they call policy credits, i.e., next -- net export revenues, is high -- is as high as 108.8 percent for the class of customers that they represent and only 88.8 percent for residential customers.

This result, however, is critically dependent on the allocation of cost depicted in their Table 5.1 on page 58, which shows the unit cost associated with exports at four point two nine (4.29) cents per kilowatt hours and those associated with their clients general service large over a hundred kV at only three point two six (3.26) cents, a difference of 32 percent. Manitoba Hydro cannot accept this as credible in terms of cost causation given that roughly half of exports are opportunity sales which should not carry as much res -- much more responsibility than variable costs.

If these results were modified to more closely reflect cost causation by the export class, all domestic RCCs prior to policy credits would decline. But those classes for whom generation and transmission were

most prominent in the cost profile, that is the general service large greater than 100 kV, they would decline the most.

The independent cost of service study review will fully consider the assignment and allocation of costs against exports. It is appropriate to obtain and review the results of the independent study before drawing conclusions with respect to class RCCs before these policy credits. A similar caveat should be placed on conclusions and recommendations flowing from class RCs after allocation of net export revenues. Currently, Manitoba Hydro allocates those net revenues on the basis of class total costs. Prior to 2008 they were allocated on the basis of class generation and transmission loads. There may be methods identified during independent review that are more appropriate and should receive due consideration.

MR. ROBERT MAYER: Ms. Ramage, I think we're prepared to accept your argument with respect to waiting -- awaiting the independent study. No, I know we're prepared to await for your independent study. I don't think we're going to be messing with -- with those distributions. And I think that position applies with respect to class results in ZOR and the treatment of thermal costs. I think we're going to want to hear all

that. You've -- you've hired an independent expert. I'm thinking that we'd like to see the independent expert.

CONTINUED BY MS. PATTI RAMAGE:

MS. PATTI RAMAGE: Great. Thank you for that. So I think we can jump ahead then in the outline to page 97. And that's the end of my water so I'm going to have to move quickly now, you'll be pleased to hear.

The Chairman raised a number of issues related to the PUB's participation in the regulatory review of Manitoba Hydro's capital plans and export contracts. Here I'm referring to Chairman issues number 5, 19, and 40. And I'd like to note that these comments were prepared prior to the service of the subpoena and -- and so while they may touch on some of those issues they certainly were not intended to specifically address those issues.

Manitoba Hydro is firmly of the view that the Board's role is properly one (1) of rate approval and does not absent an order -- absent an order from government, extend to review or approval of the Corporation's capital plans nor the export contracts which underpin the advancement of those plans. Manitoba Hydro's subject to a complex oversight framework with government, the Board of Manitoba Hydro, the PUB, Crown

Corporation's Council, and other regulatory bodies, each assigned responsibility for specific functions. Apparently someone wants me to go longer.

Manitoba Hydro and its government-appointed Board are charged with responsibility to provide for the continuance of a supply of power adequate for the needs of the province and to engage in and promote economy and efficiency in the development, generation, transmission, distribution, supply and end use of power, the section we're all -- I think we've become quite familiar with.

Section 2(b) of the Manitoba Hydro Act specifically empowers the -- Manitoba Hydro to market and supply power to persons outside the province on terms and conditions acceptable to the Manitoba Hydro-Electric Board. No provision is made for regulatory review of the terms and conditions of the export contracts themselves and any attempt to do so would likely be met with constitutional and trade challenges.

But legal challenges aside, practical considerations dictate it's not feasible to regulate export contracts. To which contracts would regulation apply? Real-time? Day-ahead? Year-ahead? Long-term? And where would you draw the line and on what basis. All are entered into in a competitive market.

The Board may well wonder then how are these contracts before US regulators. Mr. Cormie explained the US process to best -- to the best of his ability. In the US our counterparties are required to file their power resource plans. It's a process not dissimilar from our NFAAT processes. Price may be considered in terms of comparing the Manitoba Hydro resource to the cost of alternate resources such as buying or building wind or thermal but the regulator is in no way approving or adjusting that price. Similarly, Man -- the Manitoba Hydro Public Utility Board can't impose a price on our extraprovincial customers.

The parties to this proceeding are no doubt well versed in the legislative provisions that define the PUB's jurisdiction with respect to Manitoba Hydro and in particular its capital plans. The relationship between the PUB and Manitoba Hydro is governed by the Crown Corporation's Public Review and Accountability Act, or I refer to it for short as -- in short as the Accountability Act, in particular, Section 26, which grants the PUB jurisdiction to review and approve rates for service.

Contrary to Mr. Williams' suggestion the test for rates is not derived from Section 77 of the PUB Act. Mr. Williams' submission in this regard appears to

ignore the effect of Section 2(5) of the PUB Act and Section 26(3) of the Accountability Act, where nothing outside of Part 1 of the PUB Act, dealing with procedural matters for the conduct of a PUB review of -- of a rate application, apply to Manitoba Hydro.

In any event though, getting back to the capital plan question, the Manitoba Hyd -- the Manitoba Court of Appeal's clear and unequivocal 1980 decision confirmed the PUB does not, under its ordinary mandate, have jurisdiction to approve the Corporation's capital plans. Now, that decision is contained -- and I'm sure you're familiar with it --

MR. ROBERT MAYER: I don't think that's in issue. I don't think that's in issue at all, Ms. Ramage. I think the only argument that seemed -- that we, as a Board, may have with Manitoba Hydro is: Do the results -- or do your contracts and your required development reflect on rates? And if they do then we at least should be able to see them.

But I think now I'm getting into the topic we don't want to discuss in the subpoena but it's -- clearly expansion will result in -- in affect on rates. Where that dividing line is as to how much we can comment on and how much we can see I suppose may be left up to another body to determine but the issue is not -- we know

what the law is with respect to our ability to -- to control capital development and -- and we're not in the picture. But insofar as it affects rates, we are of the view that we have the right at least to see what the possibilities are that rates will impact, how they will impact, and whether they will impact in a fair and just manner.

CONTINUED BY MS. PATTI RAMAGE:

MS. PATTI RAMAGE: Okay. And I notice, in the Chairman's comments, he asked the parties to comment whether the PUB should rely on the NFAAT hearing and avoid duplicating that work, so I'm going to address part of your comments in response to that question of the Chairman's.

And he asked in -- he specifically asked the parties to turn their minds to the Court of Appeal's decision when making its comments, and that's why I had introduced the concept, because I agree, I -- I think everybody in the room is -- is well aware of that decision and -- and its -- certainly its basic impact. I think the issue goes to the next level, as you've addressed.

But in terms of duplicating an NFAAT, Manitoba Hydro's view is the PUB must rely on decisions

of the parties duly appointed to make those decisions. To do otherwise is contrary to law and, from a pac -- practical perspective, is rife with pitfalls. And this also goes to the degree of how far one goes into looking at those capital plans. For example, what is the Corporation to do if the NFAAT panel directs one (1) course of action and the PUB recommends another? There are numerous parties with an interest in the NFAAT that are not regular PUB participants. Are they to intervene in one (1) process and not the other, or would they -- should they incur the costs of -- of coming to both because the PUB could be making comments or recommendations that could impact their interest?

MR. ROBERT MAYER: Ms. Ramage, I -- I'm not sure how useful this is going to be. The province is going to say who's going to do the NFAAT. There was a time, as I understand it, in history, and not all that ancient history, where the PUB, as a matter of course, conducted NFAAT hearings. That changed significantly with the -- with the Wuskwatim because now that the environmental assessments are mandatory in generation projects, we now have -- the government of the day, in its wisdom, said they didn't want two (2) hearings. They had to have an environmental hearing, they didn't want to duplicate the process, and they appointed two (2) members

from this Board to -- and instructed the Clean Environment Commission to do the -- the needs for and alternatives to hearing as well as the envir -- as well as the environmental one.

We could probably sit around here for the rest of the afternoon, but I don't think it would be incredibly useful in light of the fact that the province will do what the province will do in appointing who's going to -- who, if anybody, is going to do a needs for and alternatives review.

MS. PATTI RAMAGE: You've -- you've aroused my curiosity with the "if anybody" comment, Mr. Chairman. I might be able to help you if...

MR. ROBERT MAYER: Well, the -- we've heard comments there will be. There will be an independent body, and of course we've all heard announcements that somebody's building Keeyask. So I'm not sure how useful any conversation we can have at this table will be for anybody.

(BRIEF PAUSE)

MS. PATTI RAMAGE: Mr. Mayer, I -- this may be stating the obvious, or I'm not sure, but on Tuesday or Monday when you spoke, I think it was with Mr.

Williams regarding this topic of the "if anybody," I went back to the office and if it is of assistance, something I have here that I don't think is particularly controversial, but if it gives the PUB some sense I do -- did get consent to provide a letter because I think the Vice-Chair asked Mr. Williams if he knew what was going on in terms of an NFAAT. And -- and I'm not sure that it's going to tell you much more than we've -- we've told -- in fact, I know it's not going to tell you more than we've told you on the record.

But I -- I can tell you that a letter in January of 2011 was sent from the minister responsible for Hydro assuring that an NFAAT is going to be required for the Keeyask and Conawapa projects and I -- I have that here if that's --

THE CHAIRPERSON: Yes, that would --

MS. PATTI RAMAGE: -- of interest.

THE CHAIRPERSON: That is of interest. And perhaps Mr. Singh could copy it for us.

(BRIEF PAUSE)

THE CHAIRPERSON: Thank you, Ms. Ramage. That is helpful.

MS. PATTI RAMAGE: Mr. Warden just said

he thought we'd already filed it. When I checked we hadn't, and letters between the Minister and Manitoba Hydro aren't normally filed, so that's -- this week I went back and said, Can I bring this back to the panel to give them at least what we know. So --

THE CHAIRPERSON: Okay.

MS. PATTI RAMAGE: -- I have that for you.

THE CHAIRPERSON: Okay. You can proceed.

CONTINUED BY MS. PATTI RAMAGE:

MS. PATTI RAMAGE: But in any event, so we've received assurance from government that an NFAAT will take place. We can't tell you any more about who's going to do it.

But getting back to the discussion regarding this Board's role, I -- I think in order to have a meaningful discussion I think we want to consider the scope of the information which the PUB could conceivably require in order to satisfy its rate approval mandate and compare that to the information in an NFAAT to see what the difference really is.

And there's no dispute that the cost of capital projects have to be reflected in rates. However, taking the cost of capital projects into account in rates

-- in the rate approval process is quite different from reviewing and opining on the merits of the capital projects or possible alternative development plans.

And -- and I think that comes to Manitoba Hydro's concern. Manitoba Hydro has made extensive efforts in this proceeding to provide the Board with requested information and to ply -- apply the widest possible latitude in identifying what information could possibly be of relevance to the approval of rates.

THE CHAIRPERSON: Ms. Ramage --

MS. PATTI RAMAGE: Yeah.

THE CHAIRPERSON: -- I think this Board can decide what it needs, what it requires --

MS. PATTI RAMAGE: Well --

THE CHAIRPERSON: -- and how it plays into how we see our mandate.

(BRIEF PAUSE)

MR. ROBERT MAYER: I don't know where you're going from here, Ms. Ramage, but I don't think the Board's going to fuss with the City of Winnipeg's issue.

MS. PATTI RAMAGE: No.

MR. ROBERT MAYER: And I for one, and I don't think anybody disagrees -- let's put it this way.

The Southern Chiefs' intervention was very disappointing.

MS. PATTI RAMAGE: I'm sorry, I was listening to two (2) things. Sorry, Mr. Mayer.

MR. ROBERT MAYER: That -- that the Southern Chiefs' intervention was very disappointing.

MS. PATTI RAMAGE: Yes. I -- I wanted to finish on this topic though with two (2) things. One (1) is to mark this letter as an exhibit. And that would be Manitoba Hydro Exhibit 161 -- 162.

THE CHAIRPERSON: 162 is fine.

--- EXHIBIT NO. MH-162: Letter

CONTINUED BY MS. PATTI RAMAGE:

MS. PATTI RAMAGE: Okay. And then I just wanted to -- Mr. Chairman, the -- the one (1) point though is that at your issue number 20, you -- where is it? The PUB -- you asked whether there should be any negative inferences drawn from -- from the lack of all the various alternative development scenarios that the Board had requested.

And that's why we were going into this topic, is whether the Board should draw negative inferences for Manitoba Hydro not filing every alternative scenario. And -- and our view was simply

that we don't have that information today. That information is something that will be prepared for an NFAAT but that Manitoba Hydro believes that you have all the information that -- that you need in order to give our -- to -- to look at the rate approval that we're seeking today.

And I did want to go into some detail beca -- on -- on one (1) issue related to the 1989 capital plans Court of Appeal case relating to an issue Mr. Williams raised. And that was where Mr. Williams asked this Board to use its rate approval function to send messages to Manitoba Hydro. And I think that's a different issue than what we've talked about. And that's really where my focus -- and I think maybe when you're looking at the slides you're -- you're misinterpreting where my focus is going because I want to address Mr. Williams' comments about sending messages to Hydro.

And because in the Court of Appeals decision -- or in that decision the stated case that this Board referred to the Court of Appeal was does the PUB have jurisdiction to approve, reject, or vary Manitoba Hydro's capital project plans, such as plans to construct new generating stations incidental to or as a condition of granting approval for changes in the price charge for power. And remember that Mr. Williams has asked you to

take percentages away from our rate increase if you don't like what we're doing and add them back on. And that's been his submission. And I think that case really addressed that kind of submission.

And what I've done is I've gone back and looked at the PUB's factum and Manitoba Hydro's factum to see exactly what the court was deciding when they were asked to decide the question of do they have the po -- does the PUB have the power to do this incidental to its rate approval function. And the PUB's factum itself took the position that the PUB doesn't have jurisdiction to direct Manitoba Hydro in advance of its capital projects, what you're saying today, but that the Board does have the power to make recommendations if it's asked.

At that time, the PUB acknowledged even if Manitoba Hydro was making what it viewed as a terrible mistake in capital plans, it said, We don't have any say in going forward, that's at Tab 27, but we can deal with it in the rates when you actually get to the year once you're in service. That was the PUB's view at the time. I'm not suggesting you're bound by that view. I'm just telling you what the court heard when they made this determination.

In response, and man -- and that's at Tab 28, Manitoba Hydro put the issue to the court or

responded to that issue, saying that if the PUB were able to withhold rate increases required to enable Manitoba Hydro to recover costs of capital projects it would have gained this power indirectly inasmuch as Manitoba Hydro's funds are primarily raised from this source and its practical ability to carry out its mandate depends on the availability of the requisite money. It is submitted that such transfer of power as would result would not be a reasonable interpretation of the role of the Public Utilities Board provided in the legislation. And, again, that's at Tab 28.

And so the importance of this is that the notion that Mr. Williams has put forward, that the PUB may use its rate approval ma -- mandate to send a message on matters outside its jurisdiction, whether it be capital plans or DSM, and do indirectly what they can't do directly, was put straight in front of the court, and that was the issues argued before it. So when it came to the -- when it answered the question, No, it can't do incidental, I think that's -- that's exactly what the court was saying. You cannot do incidentally what you can't do directly.

MR. ROBERT MAYER: Mi -- Ms. Ramage, that wasn't what I understood Mr. Williams' argument to be. And I -- I think his jacket might still be here, but I

haven't seen him for a while. And if he were here, he could probably sort us all out. But I heard the message on the O&A costs and -- saying that you're not being efficient enough. You're -- you're running amuck and that we can adjust rates if we are of the opinion that your operation and maintenance costs are too high and you're not appropriately managing the -- the operations of the Company.

I'm not sure that I agree with it but that's what I understood his argument to be. And that you're entitled to recover not all costs that you spend but maybe costs reasonably and properly spent. That was what I had understood his argument. I don't know how that would have got into any capital spending we were talking about.

MS. PATTI RAMAGE: What -- what I heard him say was we weren't doing enough on DSM and Manitoba Hy -- send Manitoba Hydro the message, reduce 1 percent because you're not doing enough on DSM and give them back half a percent from that to -- for -- for the future. And what I'm saying is that this decision says you can't do in -- indirectly what you can't -- you shouldn't be doing --

THE CHAIRPERSON: Yeah, we --

MS. PATTI RAMAGE: -- indirectly what you

can't do directly.

THE CHAIRPERSON: -- we have your point and we'll review the transcript to see what he had -- had to say.

MS. PATTI RAMAGE: Okay. And the very good news is I am now turning it over to Ms. Boyd to bring us home. And with -- with our conclusions, I think.

MS. MARLA BOYD: Just scrolling through the last pieces of the -- the material that's before you, you have our slide summarizing the issue with respect to live spreadsheets and you may have noted at Tab 30 that we have filed a written argument in that respect. I think our position is -- is fairly well understood and we don't propose to review it at this point but I'll leave it to the Board to be reviewed at your pleasure.

I -- I take your comments with respect to the City of Winnipeg submission and the fact that we don't need to review that. Again, our slide 103 summarizes the position. We did not accept the City of Winnipeg's position in writing although it wasn't advanced orally, so I don't think there's much need to address that. And I --

THE CHAIRPERSON: I -- I'm sorry to break in right now given -- given we're so close, but Ms.

Pambrun made the, I think, assertion that Manitoba Hydro had -- had no dialogue with the City. Is -- is that the case?

MS. MARLA BOYD: No. In fact, that's exactly the piece that we don't accept. And -- and there's been a -- a number of questions both in this process and outside of this process where there's been ongoing communication between the City and Manitoba Hydro. There was over a hundred and forty (140) separate information requests in this process alone. Manitoba Hydro has also previously responded to formal written questions that were submitted by the City outside of our process. So -- so we don't -- we don't accept those comments but we -- we did indicate that our -- our willingness to continue to try and meet with the City and --

THE CHAIRPERSON: Has Manitoba Hydro actually sat down and met with the City's officials?

MS. PATTI RAMAGE: Yes, I've been in some of those meetings, and so I think the City's submission, quite frankly, is mistaking -- or is -- is confusing understanding with willingness to try to explain.

THE CHAIRPERSON: Well, the impression left by what Ms. Pambrun was -- to be frank was that you -- Manitoba Hydro had -- had not followed up and had not

met with the City and sort of left -- left them wondering why they were being charged this or that.

MS. PATTI RAMAGE: Every question, to the best of knowledge that they submitted, which was in writing, was responded to in writing. And I believe -- and there was follow-up meetings following that. Whether the City understood or accepted the answers is a different story. And I can't comment on that.

But there was also the opportunity here to -- to cross-examine. And -- and the suggestion in Ms. Pambrun's submission was that Manitoba Hydro took away that opportunity when we didn't rely on the cost of service. And we didn't think that was fair because the cost of service studies were in fact filed and questions were in fact asked on them. It was just that we weren't relying on them for our across the board increase.

THE CHAIRPERSON: Okay. Thank you. Sorry, Ms. Boyd.

CONTINUED BY MS. MARLA BOYD:

MS. MARLA BOYD: That's fine. I -- I can also offer the Board a brief update regarding the diesel application which I know is of some interest to the Board. On July 5th, which was Tuesday I believe, Manitoba Hydro filed an application with the PUB for an

interim ex parte order to eliminate the tail block rate to the residential class of customers for the four (4) diesel communities.

The rates currently affecting the diesel communities were approved in Order 134/10, which was issued on December 22nd of 2010. This application filed this week is intended to address, in part, Directive 6 of Order 134/10, which required Manitoba Hydro to develop and file a five (5) year fully-costed plan to mitigate residential customers -- to migrate residential customers to grid rates for all consumption.

Our current application is meant to provide immediate rate relief to residential customers and thereby access to grid rates. No other changes are proposed within that application. We have provided a copy of that application to previous parties to the diesel proceedings, specifically CAC/MSOS, MKO, and to INAC, and have included with the application a status report on the directives from Order 134/10.

THE CHAIRPERSON: Ms. Boyd, the Board will be back to you on that point. We obviously received the application. The issue from our perspective is: Why ex parte?

MS. MARLA BOYD: Well, actually, in -- in reviewing that summary, I -- I wondered the same myself,

and -- and given that we've served three (3) parties, I don't know that it's truly described as an ex parte application anymore, but it was originally filed with -- with that word in it, and --

THE CHAIRPERSON: This is a very unusual way of doing it, but we've discussed it ourselves and we're just thinking we presumably can find some form of expedited written, paper-based process, even if it happens to involve a -- a day of -- of hearing.

MS. MARLA BOYD: Certainly. We'd be pleased to discuss that further with you. That will be Ms. Fernandes that -- that addresses that matter, but I'm certain she'll be happy to discuss that.

MR. ROBERT MAYER: We -- we did note that ex parte appeared more than once in the -- in the Application, and so we took it that you really meant it, but --

MS. MARLA BOYD: Apparently --

MR. ROBERT MAYER: -- I couldn't quite understand why you would serve anybody if you were asking for an ex parte application.

MS. MARLA BOYD: Yes, I -- I agree with your comments.

CONTINUED BY MS. MARLA BOYD:

MS. MARLA BOYD: Just by way of conclusion, Manitoba Hydro filed this application a long, long nineteen (19) months ago, and this process has involved thousands and thousands of information requests that have been responded to by Hydro and by Intervenors and experts. You have heard, I believe, more than forty-one (41) days of evidence, including witnesses for Hydro; KPMG; ICF; the two (2) independent consultants, Drs. Kubursi and Magee; and, by my count, eight (8) experts engaged by three (3) Intervenor groups. You've heard three (3) days of argument, and you have at your disposal almost nine thousand (9,000) pages of transcript references.

The simple questions before the Board, and for which Manitoba Hydro seeks approval, are outlined on our -- our slide 106. I'm not going to reiterate all those requests; they're -- they're before you. The only thing I would note is that, with respect to the request for additional implica -- implementation of an additional .9 percent increase effective August 1st, that in order to implement such an order we would request that the Board provide their order or their finding in that respect by July 22nd.

As we all know, this hearing has focussed much more on other items than it has on the matters that

are central to the Board's jurisdiction over Manitoba Hydro. In addition to considering these rate requests, the PUB mandated that this hearing would review Manitoba Hydro's risks and its risk-management practices. It is Manitoba Hydro's fervent hope that there is -- all of the information exchanged over these nineteen (19) months has been adequate -- adequate to satisfy you that Manitoba Hydro has managed its risks well and is taking the appropriate steps to ensure that those risks will be managed well into the future.

The allegations raised by the New York Consultant have been dismissed by all experts who appeared before you. The inflammatory allegations of blackouts and billion-dollar losses are unsubstantiated. Although there's been some suggestions for minor improvements, the evidence of the experts, both those called by Hydro and those called by the Intervenor groups and the independent consultants, all essentially confirm that Manitoba Hydro's practices and models are appropriate, and that the risks are being managed appropriately.

Manitoba Hydro will give consideration to the suggestions and the recommendations made by these experts as part of its desire to continuously improve its practices, but there has been no evidence brought before

-- before you to suggest that there's a need to be concerned with Manitoba Hydro's risk-management practices.

This hearing confirms the evidence that has been put forward for many years by Manitoba Hydro: One (1) of the most significant risks faced by the Corporation is drought. The evidence also demonstrates how Manitoba Hydro is an organization in the business of managing droughts. We cannot make it rain, nor can we predict whether or when it will rain, but the systems in place ensure that Manitoba load is given the highest priority for service. This is true in the modelling, it's true in the system operating parameters, and it's true in the negotiation of terms in the export contracts which allow Manitoba Hydro to curtail its export obligations in the face of drought.

This hearing has also demonstrated that the systems by which Manitoba Hydro manages its operation and its risks are complex, and we've seen from the evidence of the experts who have attempted to replicate Manitoba Hydro's work that the system is complicated and variable. One cannot create a set of rules and operate as those -- as though those rules will apply in all situations.

A great deal of time has been expended in

the hearing, and particularly in the IR process, because of some stakeholders, participants, or advisors who are operating on the mistaken assumption that Manitoba Hydro's system can be reduced to a simple set of rules, and that it is nego -- and that its operations, excuse me. Manitoba Hydro's system cannot be reduced to a simple set of rules, and its operation in the face of uncertain weather forecasts ought not to be judged, or even condemned with hindsight.

The role of this Board is not to apply hindsight to the decisions made by Manitoba Hydro, whether in the 2003/'04 drought or at any other time. The role of this Board is to consider the forecast of the Corporation as contained in the integrated financial forecast, and to satisfy itself that the rates sought by the Corporation provide sufficient monies to cover operating, maintenance, and administration expenses of the Corporation, interest expense on debt, and a sufficient level of equity.

In conjunction with a review of rates mandated by the CCPRA, the Board can also take into consideration any other factors it considers relevant. To that end, the Board has informed itself of the longer-term financial implications of the decade of investment, followed by the decade of returns.

These longer-term financial forecasts are simply that; forecasts. And while they may be useful to inform the Board as to its rate decisions in the test year, they are not adequate to determine Manitoba Hydro's future development plans, nor is the PUB expected to draw conclusions regarding preferred and alternative development scenarios in this hearing.

The volume of information in this proceeding is overwhelming, and if we were successful today in making Mr. Williams look like a piker, as the Vice-Chair suggested, then I must say I confess that we owe thanks to our colleague, Ms. Fernandes, who has been invaluable in terms of coordinating that material for us.

We want to conclude by thanking all of the parties involved for their efforts in digesting and testing the information, and the Board for its attention and patience throughout the process.

I have been asked to convey a special thanks to the counsel and expert witnesses of MIPUG and RCM/TREE, or Action Centre Verte, for their construct -- their constructive contributions to the proceeding.

It was especially refreshing to hear Mr. Hacault's comments about the positive aspects of Manitoba Hydro, and how we are the envy of other jurisdictions.

Manitoba Hydro certain echoes those

comments, and sincerely hopes that all parties can keep the best interests of energy consumers first and foremost in proceedings.

We encourage the Board, in the face of the volume of material before them, to return to the questions that are central to the Application, being the approvals that are sought by Manitoba Hydro.

We are confident that the evidence has been thoroughly tested, and that the requested rate increases are just and reasonable, and reflect the appropriate balance of the interest of the ratepayers, and the ongoing need for a financially stable utility.

Subject to any questions which you have of us, that concludes Manitoba Hydro's submission.

THE CHAIRPERSON: Thank you, Ms. Boyd and -- and Ms. Ramage. I'm -- I don't mean to be a fussbudget, but --

MS. ANITA SOUTHALL: Mr. -- Mr. Chairman, sorry, I -- I did have to put the closing submission of SCO on the record as an exhibit, so I apologize. I haven't done that.

THE CHAIRPERSON: If you give me a second I'm going to ask you to do that.

MS. ANITA SOUTHALL: Okay.

THE CHAIRPERSON: Okay?

MS. ANITA SOUTHALL: Thank you.

THE CHAIRPERSON: First of all I was going to say, in the interchanges between the parties, I think it might be helpful -- I believe it was -- it was you, Ms. Boyd -- if you could just read in your -- your response with -- with respect to SCO?

(BRIEF PAUSE)

THE CHAIRPERSON: It's page 104.

MS. MARLA BOYD: I -- I'm afraid I took Mr. Vice-Chair Mayer's desire to move forward a little too seriously, but Manitoba Hydro did review SCO submission, and finds no merit in their position.

Contrary to the Board's clearly stated direction in Order -- Order 30/10, SCO is seeking to use the public utility rate and risk review as a forum to seek compensation for unproven and unsustainable allegations of liability for property and other damages.

As the PUB has stated at the outset, this is not the proper forum for dealing with such claims, and we would submit that the PUB has no jurisdiction to order the relief claimed by SCO.

THE CHAIRPERSON: Thank you.

Ms. Southall, if you wouldn't mind now putting in SCO's closing statement into the record, and then I'll provide our closing remarks.

MS. ANITA SOUTHALL: Thank you, Mr. Chairman. So SCO's closing written submission was provided by their counsel, Mr. Rath, circulated by email to the Board and all participants on June 22nd, 2011.

And it should be noted as marked as SCO Exhibit 3. Thank you.

THE CHAIRPERSON: Thank you.

--- EXHIBIT NO. SCO-3: Final Submissions of SCO

THE CHAIRPERSON: This brings to an end the public segments of Manitoba Hydro's GRA for 2009/''10 and '10/''11 rates filed late in 2009, distracted at times, and certainly significantly extended by a) the intervention of the former Manitoba Hydro advisor NYC; b) related matters; c) the wait of Manitoba Hydro's preferred development plan which would, if it gained regulatory approval, involve a development plan costing in excess of 16 billion, and new export contracts; and also d) the Board's concern about Manitoba Hydro's risk.

In all, this has been the longest hearing in the -- in the Board's history. While questions of

cost and -- and value, and -- and value for money for at least some aspects of this lengthy process, and actions taken through it could be debated for some time. There can be no doubt as to the efforts made by all persons and parties associated and/or directly involved in the proceeding, and we thank everyone involved in it. It was certainly a testing process and a very lengthy one, and a lot of enormous work, obviously, went into it.

So on behalf of the Board, I thank one and all. An order with respect to this Hearing will come in due course.

Manitoba Hydro has indicated a preference, if not, an intention to file another GRA for a further rate change, as I understand it, to take effect April 1st, 2012. Manitoba Hydro has also indicated an interest, given this hearing experience, for an expedited approach for this new GRA, presumably in such a late fall for a GRA that could be filed in the -- in the late -- in late fall, an updated IFF, an updated CIF -- CF -- EF, and further relevant information would be filed.

Presumably as well, by that time, the matter of the Board's subpoena will have been dealt with, and perhaps even a new EIIR, or an EIIR-like proposal, may be readied. We understand the recession ended some time ago -- it's just a note -- and perhaps Manitoba

Hydro's COS study may be available, or at least an update on that.

So, with that, we stand adjourned. Thanks again.

--- Upon adjourning at 4:25 p.m.

Certified correct,

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Cheryl Lavigne, Ms.