MANITOBA PUBLIC UTILITIES BOARD

Re: MANITOBA HYDRO

GENERAL RATE APPLICATION

2012/13 AND 2013/14

Before Board Panel:

Regis Gosselin - Board Chairman

Raymond Lafond - Board Member

Larry Soldier - Board Member

HELD AT:

Public Utilities Board

400, 330 Portage Avenue

Winnipeg, Manitoba

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Pages 420 to 686

APPEARANCES

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

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LIST OF UNDERTAKINGS

--- Upon commencing at 9:07 a.m.

THE CHAIRPERSON: Good morning, everyone. I believe we are ready to commence today's proceedings. I wonder if we have any business to attend to before we start?

MS. PATTI RAMAGE: Yes, thank you, Mr. Chairman, and good morning Board members. Manitoba Hydro has a number of documents to be assigned exhibit numbers. We left these housekeeping matters to this morning although they were distributed on Monday, or actually even Friday electronically.

The first document we'd like to see assigned an exhibit number would be Manitoba Hydro's rebuttal evidence. And we've spoken with Mr. Singh this morning and confirmed that will be Exhibit 8, Manitoba Hydro Exhibit 8.

--- EXHIBIT NO. MH-8: Manitoba Hydro's rebuttal evidence

MS. PATTI RAMAGE: We also passed out this morning a single page, and it is page 20 of 62 of Manitoba Hydro's rebuttal evidence. What we are -- Mr.

Singh, have you passed that out? Thank you.

The Figure 6 on page 20 that was included in the rebuttal evidence that was posted initially on Friday with incorrect figures. So that has been corrected online and we have passed out a revised page 20, and are suggesting it simply be inserted into your rebuttal evidence, the other page 20 removed. To help the parties we can arrange for a stapler and three-hole punch to be brought out at the break so that that's just one (1) complete document.

The next document on the list is IFF12, which was distributed on Friday, December 7th. We're suggesting that be identified as Exhibit 9.

--- EXHIBIT NO. MH-9: IFF12 document

MS. PATTI RAMAGE: And if everyone has that now we also distributed the capital expenditure forecast on Friday. That should be assigned Exhibit number 10.

--- EXHIBIT NO. MH-10: Capital expenditure forecast

MS. PATTI RAMAGE: And if we all have

that, the external power resource plan, again distributed Friday, December 7th, will be Exhibit 11.

--- EXHIBIT NO. MH-11: External power resource plan

MS. PATTI RAMAGE: By email Manitoba Hydro also circulated CVs of its panel members. Those would be Scott Thomson, Vince Warden, David Cormie, Darren Rainkie, Terry Miles, Robin Wiens, Lois Morrison and Wayne Wittmeier. And as a package we're suggesting that those CVs be marked as Exhibit 12.

--- EXHIBIT NO. MH-12: CVs of panel members

MS. PATTI RAMAGE: Next on our list of to-dos is the Affidavit of Service. This won't be a document distributed to all parties but it has been provided to the Board and is available if -- if parties wish to inspect it. Mr. Hollis has confirmed that that will be assigned Exhibit 13.

--- EXHIBIT NO. MH-13: Affidavit of Service

MS. PATTI RAMAGE: There is also an affidavit of publication and service, and it is dated November 29th, 2012. It's the -- deals with the publication of the reminder notice in major and rural newspapers. That will be assigned Exhibit 14.

--- EXHIBIT NO. MH-14: Affidavit of Publication and Service

MS. PATTI RAMAGE: So that deals with Manitoba Hydro's exhibits. The -- well, there is one (1) other. It's been distributed this morning. Mr. Warden, as part of his direct evidence, will be -- will be providing the Board with a presentation and that presentation should be marked as Exhibit 15. That -- that was circulated this morning.

--- EXHIBIT NO. MH-15: Presentation by Mr. Warden

MS. PATTI RAMAGE: So now if everyone is caught up on that, a couple of other housekeeping matters. On Monday Mr. Peters distributed the PUB book of documents, Volumes I and II. And I don't believe those were assigned exhibit numbers.

MR. BOB PETERS: Not yet.

MS. PATTI RAMAGE: Do -- do you want to do them now, Mr. Peters? That was, I guess, the question.

MR. BOB PETERS: Certainly. Mr. Chairman, I haven't provided to the Board, as of this time, some documents that I expect to use in questions of -- of this panel, but I have prepared books of documents. And I would propose that they be marked as PUB Exhibit 14, and I will distribute them this morning to the Board before I commence my questions of the witnesses.

I did provide them to the parties electronically, and I did provide paper copies as well to Manitoba Hydro, at least a limited number of them. And I provided other parties with paper copies.

So the Board will receive theirs this morning. And it will be -- if we could, we'll mark them as Exhibit 14. I will indicate that they will be numbered sequentially, both with tabs and they will also have page numbers that are sequential. So whenever I refer to PUB Exhibit 14, it will be the PUB counsel's book of documents, and the tab and page numbers will be -- will follow. So only one (1) exhibit number is needed no matter how many books of documents there physically are. So thank you, and

thank Ms. Ramage for reminding me.

--- EXHIBIT NO. PUB-14: PUB book of documents

MS. PATTI RAMAGE: And the one other document -- and I leave this to Mr. Williams -- we -- that was distributed on Monday was the CAC outline of his submission. And I -- it wasn't clear whether Mr. Williams wanted that entered as an exhibit, but I thought we could deal with that as a housekeeping matter this morning.

MR. BYRON WILLIAMS: I thank Ms. Ramage for that. And, Mr. Chair, that -- that's really at the discretion of the -- of the panel. Certainly if the panel wishes it to be marked in -- as an exhibit, it would probably be CAC-5. Mr. Singh, is that right? CAC-4, I apologize.

THE CHAIRPERSON: Let's do that then. Let's mark it as Exhibit 4.

--- EXHIBIT NO. CAC/MH-4: Outline of CAC (Manitoba)'s presentation

MS. PATTI RAMAGE: This might be a good time to have the witnesses sworn, Mr. Chair.

THE CHAIRPERSON: Okay, please.

MANITOBA HYDRO PANEL 2 - REVENUE REQUIREMENT:
VINCE WARDEN, Resumed
DAVID CORMIE, Resumed
DARREN RAINKIE, Sworn
TERRY MILES, Sworn
LOIS MORRISON, Sworn

MS. PATTI RAMAGE: Thank you. Now before we proceed with our direct, I thought -- we have -- this is our second panel, our revenue requirement panel. We have a number of new faces and a new back-row member. So I thought I might just quickly run through and -- and some of these are new faces to, not only our -- our new panel, but all in the room.

The -- Mr. Warden spoke on Monday. Seated next to him is Darren Rainkie, our corporate controller. Next to Mr. Rainkie is Mr. Cormie, who we also met Monday. Next to Mr. Cormie is Terry Miles, who is the manager of Resource Planning and Market Analysis at Manitoba Hydro. And to my far right is Ms. Lois Morrison, who is division manager of Consumer Marketing and Sales.

Our back-row support people generally

are supporting the person directly in front of them. So to my far right is Mr. Louis Kessler. He is the manager of market -- of the Market Forecast Department. Ms. Joanne Flynn is division manager of Power Planning. She was also here on Monday. Mr. Kevin Gawne is the manager of Energy Operations and Planning. Next to Mr. Gone is Ms. Kristen Perrault, who's the -- our regulatory financial analysis in the Corporate Controllers Division. And then we have Ms. Liz Carriere, who is the manager of financial -- of the Financial Planning Department.

I can advise the Board that I -- Mr. Peters and I exchanged some emails yesterday. We're hoping to reduce the number of our back-row support and witnesses as we proceed and get an idea of where the -- where the cross-examinations are going. And Mr. Peters was fair, cooperative in assisting us, but we thought we should all be here as we start out. And we may see people come and go as the Hearing proceeds.

I think we're going to begin this morning. Mr. Warden has, as part of his direct, prepared a presentation for the Board. That has been marked as Exhibit 15. And he is going to provide the Board with an overview of Manitoba Hydro's Application and an update on -- on various aspects of the

Application. Mr. Warden...?

PRESENTATION BY MANITOBA HYDRO PANEL 2:

MR. VINCE WARDEN: Yes. Good morning, Mr. Chairman, members of the Board, and ladies and gentlemen. My name is Vince Warden. I'm the VP, Finance Administration, and CFO for Manitoba Hydro. I have appeared before this Board on numerous occasions in the past, but I can say with some certainty, this will be my last appearance.

Although I have appeared many times before, I can also say that no application of Manitoba Hydro is more important than the one you have before you today. The rate increases being sought in this Application are not insignificant by historical standards. In Manitoba Hydro's view, however, the requested rate increases are absolutely necessary to maintain that optimum balance that we spoke about on Monday, that balance between fiscal responsibility and -- and customer sensitivity.

I've stated previously that Manitoba Hydro is in the strongest financial position in its history. This continues to be the case, with the debt-equity ratio at the target level and with retained earnings at an all-time high.

There are, however, some difficult financial challenges confronting us, with a precipitous drop in export revenues and the higher cost being incurred to maintain an aging infrastructure. This is evidenced in Manitoba Hydro's recently issued quarterly report for the six (6) months ended September the 30th, 2012.

As indicated in that report, Manitoba Hydro incurred a net loss on consolidated operations of $43 million compared to net income of 13 million for the same period in previous year. While 25 million of the current-year loss is attributable to gas operations, the six (6) month loss of 18 million in the electricity sector is especially troublesome in a year in which above-average water flows are being experienced.

Compared to the previous year, the loss of 18 million in the electricity sector is a turnaround of 55 million, from the 37 million profit realized for the same six (6) month period last year.

There are a number of factors contributing to this, including higher system maintenance and repair costs, the incremental costs associated with placing Wuskwatim Generating service -- Station in service, higher pension and employee-related

expenses, and accounting changes that better reflect current costs of operations.

Going forward, we will be experiencing even greater pressures on the cost side of the equation. We've been talking about the looming, aging infrastructure issue for a number of years, but there's no denying that it is finally upon us.

A recent Conference Board of Canada report estimates the need for over 300 billion of infrastructure investments by electrical utilities over the next twenty (20) years. And Manitoba Hydro is certainly not isolated from this.

Historically, the reliability performance of Manitoba Hydro's system has been excellent and among the leading utilities in Canada. More recently, however, the reliability performance of our system has begun to degrade, and asset condition is a major contributing factor.

Mr. Chairman, as part of my opening comments, I thought it might be helpful to the Board to provide you with an overview of Manitoba Hydro's current position, including some comments on key risk and issues.

This document, as Ms. Ramage has indicated, has been distributed as Exhibit number 15,

which I will briefly review. The -- on page 2 of the document that was distributed is a summary. I will talk a -- a little bit about what Manitoba Hydro is, where we're positioned today, provide a financial update, review our General Rate Application, prov -- provide some comparisons to other utilities.

Ms. Morrison, in her direct, will talk about the energy conservation programs that are currently underway and the progress we're making. We'll have a -- a brief discussion on risk management. Mr. Rainkie will talk about IFRS in his direct presentation, and Mr. Cormie will talk about current water conditions in his direct testimony.

Very briefly, on slide number 3, the corporate profile on March 31st, 2012, we have approximately $2 billion in annual revenues. Our assets are 14 billion. We have five hundred and forty-three thousand (543,000) electricity customers and two hundred and sixty-eight (268,000) natural gas customers. This makes us -- or makes Manitoba Hydro one of the largest integrated in natural gas utilities in Canada. We have exports to over thirty (30) wholesale customers in both Canada and the USA.

We do have the lowest electricity rate structure in North America. As at March 31st we were

ranked number 1 in customer satisfaction by the Canadian Electrical Association. We're actually tied for number 1 with SaskPower and -- and Newfoundland.

We have sixty-three hundred (6,300) employees at March 31st. We -- for the third consecutive year we've been recognized as a top one hundred (100) employer in Canada. A leader in Aboriginal employment with 16.4 percent of our tot -- total labour force today is Aboriginal. And 42.4 percent of our Northern workforce is Aboriginal. We are a leader in energy conservation, which we'll be speaking -- Ms. Morrison will be -- be speaking more of in her direct testimony.

Slide number 4 does provide just a snapshot or an overview of Manitoba Hydro's system, showing the percentage of energy supplied from our various river systems over the past year. So the total -- total energy supply in 2011/'12 was 33,249 gigawatt hours, which is about 2 1/2 percent lower than the previous year, but still above -- above average.

With the addition of Wuskwatim Generating Station during the year, or this -- just coming on-stream we'll have fifteen (15) hydraulic generation stations on the system, a coal plant at Brandon, which is used in emergency situations only, a

combustion turbine at Brandon, and four (4) diesel electric sites.

Inter -- interconnection capability is -- - to the east and to the west is 150 megawatts into Saskatchewan, 200 megawatts capability into Ontario, the largest by far capability though is at our neighbours to the south with 2,175 megawatt capability -- transfer capability.

To provide a financial update then on page 6, we structured this -- this page showing the results over the past four (4) years, so starting in 2009. And some comments have been made by some Intervenors that Manitoba Hydro has done a poor job of forecasting.

But looking at the actual results over the past four (4) years, I don't know that anyone would have forecasted a drop of 41.7 percent in extraprovincial revenues over that four (4) year period, or a 54.3 percent drop in the cost of natural gas to supply to the Manitoba market.

So the changes that have been occurring in the -- in the energy market over -- over that period of time has been -- have been described by many people as "game changers". So Manitoba Hydro does not apologize in any way for forecasts that we prepared in

2009 being diff -- different -- substantially different from what they are in 2012. And I think this is evidence -- evidence of why that situation has occurred.

The rate that we were getting -- and -- and you can see the extraprovincial sales has gone from 623 million in 2009 to 363 million last year. And -- and the 632 million was not the peak. We actually peaked -- export sales were in 2006, when we achieved $827 million in revenue in that year. So a substantial decline in export sales.

And I've -- I've also indicated across -- at the very bottom of this page hydraulic generation, because our export sales can be very much influenced by water flow conditions. And you can see though that over that four (4) year period, hydraulic generation has been relatively flat. That is, we've experienced good water flow conditions over -- over that four (4) year period, and none of that drop -- or very little of that drop that we're seeing in extraprovincial revenues is -- is due to water conditions.

More so it is -- it is due to the change in the price -- return we're getting on the export market. In 2009 -- 2008/'09 fiscal year we were getting forty-seven dollars ($47) per megawatt hour for

our opportunity sales. Those are the non-firm sales. In 2011/'12 that number is twenty-three dollars ($23). So it's gone from forty-seven dollars ($47) in 2008/'09 to twenty-three dollars ($23) in 2011/'12, and that's a major contributing factor to the drop in extraprovincial revenues.

Operating and administrative expenses have gone up 10 percent over that four (4) year period. And I will be speaking more to operating and administrative expenses a little bit later in the presentation.

If we can turn to the next -- oh, I should have mentioned if the Board has any questions as I proceed, I'd be pleased to answer those questions at any time. So please -- please interrupt me.

If we turn to page 7, this is the -- our consolidated financial results for the six (6) months ended September the 30th. So this is what was in the recently issued quarterly report. So you can see, as I mentioned earlier, a loss of $43 million for that six (6) month period compared -- compared to 13 million in the previous year -- same six (6) months in the previous year. The -- on the next page, on page 8, this is the electricity statement for that same six (6) month period. And as I indicated earlier, we lost $18

million compared to $37 million the previous six (6) months.

On page 9, probably -- probably the most important slide of the deck, I suppose, is this one that shows what -- summarizes a couple of important points I want to make here, actually. Maybe I'll start with the net income at the bottom. It shows that we have -- are -- according to our financial forecast just released on Friday, net income is projected at 53 million for the -- for the first test year, and 60 million for the second test year.

However, there -- that does include what is referred to as non-controlling interest. And I've highlighted that issue because the non-controlling interest is income from our partner, Aboriginal partner at Wuskwatim, Nelson Hou -- or, NCN is our -- the partner we have at Nelson House that, according to -- to the development agreement, the project development agreement we have with NCN, we share as a partner -- we -- as partners we share in the revenues and costs of -- of Wuskwatim proportional to the -- our equity ownership, so NCN has 33 percent ownership in Wuskwatim generating station.

At the time the agreement was negotiated with NCN, going back to 2006 -- and as indicated on my

first slide, the world has changed dramatically since that period in time. Whereas we were projecting income from Wuskwatim, Wuskwatim is now contributing to costs on our income statement because of the -- because of the drop -- primarily because of the drop in export revenues.

That means that instead of sharing in a -- in a profit on Wuskwatim, NCN is contributing towards a loss. So the $14 million that is showing here is non-controlling interest in 2012, and 24 million in '13/''14 is NCN's contribution towards the loss at Wuskwatim. That is not going to happen. I can tell you right now that that is not -- we are not going to receive that 14 million, we are not going to receive that 24 million to -- the agreement is in the process of being renegotiated because of the conditions we're experiencing now with export revenues.

It's a big issue for us, but it's one that the Board should be aware of, that the net -- that the -- really the focus we should be -- as far as these proceedings are concerned, the focus of net income for '12/''13 is 39 million, and for '13/''14 is 36 million.

At the time we were preparing our financial forecast we really had no alternative but to prepare in accordance with the development agreement we

have with NCN. We did that, though, being fully aware that neg -- negotiations were under way. We -- those enga -- negotiations are continuing as we speak, have not concluded an agreement, but I can tell you with absolute assurance that that income from non-controlling interest will not be received.

So we are looking then at net income in '12/'13 of 39 million if -- if we get approval from this Board of the 80 million that is being requested with this rate application. And similarly, in '13/'14, 36 million net income if we receive approval for the 119 million of additional revenue, or at least, application we have before this Board. In the circumstance that any or all of that is not approved, of course that will go right to the bottom line and we will incur losses of some magnitude in each of those years.

So just going over those increases then, the -- the 35 million, 1 percent rollback is -- includes 23 million accumulated to the end of 2012/'13, plus an additional 12 million for this current fiscal year, '12 -- or, for the '12/'13 fiscal year. And a further 12 million in the subsequent '13/'14 fiscal year. The 25 million referenced in -- effective April the 1st 12 -- 2002 (sic) is -- is what we have interim

approval for from this Board; likewise, with the 2 1/2 percent, September the 1st, 2012, we have interim approval. Then we are seeking additional approval of 3.5 percent which will generate revenues of 48 million in thir -- in the '13/''14 fiscal year.

It also assumes that we will achieve the export -- extraprovincial revenues that are forecast for '12/''13. And as Mr. Cormie will indi -- inform you of in his testimony there are some issues associated with that as well.

Okay. So we'll turn to the next page then. This is an excerpt from our Integrated Financial Forecast. It does show the net income of the 53 million we previously spoke of, the 60 million in '13/''14, 50 million in -- in '14/''15, and taking it right out to 2021/''22, 52 million in that year.

However, deducting the non-controlling interest that I previously referenced, we would have to reduce '12/''13 by 14 million, '13 -- the fiscal year 2013/''14 by 24 million, and the fiscal year '14/''15 by $21 million. Adding that up for the entire ten (10) year period that's covered on this page, up to 2021/''22, the non-controlling interest totals $108 million.

Page 11 does indicate what our financial

targets are: debt-equity, interest coverage, capital coverage. These are targets -- the financial targets Manitoba Hydro has been tracking for a number of years and striving to obtain the 75:25, which we -- we have achieved and we are actually currently -- current results as -- as at the end of October 2012, we are exactly at 75:25 for -- for the debt-equity ratio.

Interest coverage we have a target of one point two-zero (1.20). We're currently sitting, at the end of October, at one point zero (1.0). Capital coverage, also one point two-zero (1.20), we are currently at one point one (1.1).

The ratios are -- financial ratios are shown graphically on the next three (3) pages, so the equity ratio, as you can see from this chart during the period of major capital construction does take a significant decline, a dip into the te -- it bottoms out at 10 percent, 10 percent equity in 2022 and then begins to increase gradually.

This is a very important chart that we review with our credit rating agencies, and they -- they certainly appreciate the fact that when we're incurring the amount of debt that we will be with our Capital Construction Program, the equity ratio is going to be affected in a -- in a negative way.

What they take comfort in though is the recovery, the recovery that we see towards the end of the forecast after -- after -- especially after Conawapa generating station comes into service the -- the revenues realized, or projected to be realized from the Conawapa generating station contribute to recovery in the equity ratio. And we do, by the end of the forecast period, by the end of this twenty (20) year period, we do get back to the 75:25 target ratio.

Interest coverage on -- on page 13 does show that for the next twelve (12) years we will not meet the interest coverage target of one point two-zero (1.20). And this is -- this is of -- of significant concern actually. And there are -- there are at least one (1) -- three (3) years where it's very close to one point zero (1.0) and dips below one point zero (1.0) in -- in one (1) of those years.

So we're hopeful going forward we'll be able to manage this such that we can keep that ratio at least above one (1) for that -- during that period of major construction.

The capital coverage ratio, this is -- they're measuring the amount of funds we have generated internally to fund our -- our base capital, not including our major generation and transmission target

there is one point two-zero (1.20).

We do achieve that for the majority of the forecast period, although, during the early years of the forecast we -- we do not -- we do not achieve that target. Comparing to other -- just very briefly, to other hydraulic utilities in Canada, Manitoba Hydro, the -- the interest coverage ratio, as you can see, at the end of March 2012 was significantly below the other utilities in Canada. Hydro Quebec sitting at one point nine-nine (1.99), BC Hydro one point nine-one (1.91), New Brunswick at one point five-nine (1.59).

Equity, we're -- we're reasonably good there with our equity, so our 75:25 target, I think, is appropriate. The -- it shows twenty-six (26) here at the end of March 2012. Since that time, it has now moved to 75:25, compared to 31 percent at Hydro Quebec; 20 percent, BC Hydro; and 9 percent for New Brunswick.

Retained earnings throughout the forecast period are forecast to remain relatively flat. We won't be adding -- because, of course, due to our low -- very low projected net income, retained earnings will remain pretty much where they are after the charge against retained earnings for IFRS that occurs in 2014.

Very briefly on page 17 is our Power Resource Plan showing the major generation and

transmission that will be coming into service over the next approximately twelve (12) years. A little bit further, actually, we've got Pointe du Bois rebuild on here that goes out further, but for the most part, this is in the next twelve (12) years.

So Wuskwatim is now fully in service. The last of three (3) units was placed in service in October at a cost of 1.8 billion. That includes the transmission facilities associated with the generating station. Bipole 3 estimate is 3.3 billion. We have Conawapa coming -- scheduled -- or, sorry, Keeyask scheduled coming in to service in 2019/'20 at a cost of 6.2 billion. Conawapa, 1,485 megawatts, 10.2 billion. And additional transmission from the North, that's AC transmission, and -- yeah. The spillway replacement, '14/'15 for 560 million. And the eventual rebuild of Pointe du Bois powerhouse going out to 2030.

So page 18 of the presentation refers to our -- shows a graphical presentation of our operating and administrative expenses. And except for accounting changes and pension cost increases, we have OM&A -- our OM&A -- operating, maintenance, and administration -- is projected to increase at 2 percent per year. So that's all we have built into this forecast is 2 percent per year.

There is a risk that won't be attainable, mainly because of our infrastructure issue that we've -- Mr. Thomson discussed in his presentation. And we'll -- I'm sure we'll be talking more about in this proceeding.

THE CHAIRPERSON: Can I ask a question, Mr. Warden?

MR. VINCE WARDEN: Yes.

THE CHAIRPERSON: On the -- with respect to the comment of 2 percent per year, I'm just noting that there is -- there are some significant increases that appear between years. Are you looking at 2 percent per year from 2008 to 2022? Is that where that 2 percent comes from?

MR. VINCE WARDEN: No, sorry. The actual -- I was referring to the forecast only.

THE CHAIRPERSON: Oh, I see.

MR. VINCE WARDEN: What -- what we have built into our forecast other than accounting changes and -- and pension cost increases --

THE CHAIRPERSON: Oh, I see. Okay.

MR VINCE WARDEN: -- and IFRS. IFRS causes the step change that we see. But no, the historical -- I actually will review the stor -- historical on the next page. Yes. And Mr. Rainkie

just reminded me, there's provision for -- for Keeyask coming into service in 2019, which will also contribute to an increase over and above the 2 percent that we have in the forecast.

So just a little bit more on operating and administrative costs on slide 19. You can see here we have, starting in 2000 -- the actual for 2009/'10, '10/'11, and '11/'12.

So the -- the in -- you can see 4.28 percent increase in 2009/'10. That increase was mainly -- or, at least -- not mainly, but at least partly due to the strike that was appear -- experienced by Manitoba Hydro, the IBEW strike that was experienced by Manitoba Hydro in that year, which added approximately $6 million of costs in -- in that year.

2011/'12 though, the percent increase in fac -- as a matter of fact, we had a decrease in 2010/'11 of 0.8 percent, a decrease in our OM&A expenses after adjusting for accounting changes, which we'll speak a little bit more of. Likewise, in 2011/'12 a very modest increase of .63 percent year-over-year increase in OM&A after adjusting for accounting changes. We are projecting for the next two (2) fiscal years increases of 1.62 and 1.93 percent after adjusting for accounting changes again.

So the average increase in our operating, maintenance, and administrative expenses over that period of time was 1.68 percent, compared to CPI over that same period of time of one point eight-two (1.82). So we're below CPI, despite the fact that we are a growing organization, in terms of numbers of customers.

We add in the order of five thousand (5,000) customers per year to our system. And of course there are additional costs associated with that. We've been managing this infrastructure issue during this period of time, as well, at increases under the -- overall, they're under the rate of inflation.

The -- I -- I included on page 20 a summary of the accounting changes. And I -- I do want to be clear that these accounting changes are not IFRS changes. They are, however, IFF -- IFRS related. So as a result of util -- all utilities in Canada considering going the IFR -- IFRS route and some, as Mr. Thomson indicated, have gone to US GAAP; but as a result of -- of that movement toward IFRS, all utilities in Canada have been looking at their capitalization policies.

So Manitoba Hydro is definitely not alone in this. We've been looking at how we capitalize

costs, and how compliant they would be in an IFRS environment. This -- this very close look, though, that all utilities in Canada have been doing at their operating and administrative -- or, their administrative costs has led to the auditors, as well. The aud -- our auditors are taking a very close look at this.

The change that we have made -- have made in -- in each of the years '09/'10, '10/'11, and '11/'12, are not only supported by -- by our external auditors; they're also -- almost -- almost demanded by our external auditors, because they've always been of the view that we've been at -- at the extreme edge, in terms of what we were doing with our capitalization policies.

And just to give you an example, when we put a new office building, or a district office building into service, we capitalize it during -- of course, during the period of construction. We -- we charge that to capital depreciated over the life of that facility.

What we also do -- have done at Manitoba Hydro, however, is we've taken the interest and depreciation on that building and charged a proportional part of that back to capital. So not only

do -- do we charge the original facility to capital, but when we depreciate we charge a portion of that back to capital again, because we do use that facility partly -- not only for operations, but also for capital.

We're probably the only utility in Canada that ever did that. Now we can support that from a theoretical basis, but it's definitely not allowed under IFRS. And definitely when the auditors start looking at that, they came to the conclusion that they could no long support that as -- as a methodology.

So the changes that we're implementing here are certainly with a view towards IFRS, but are driven more so by -- by Canadian GAAP, what we're doing in -- in -- according to Canadian accounting standards. We'll be definitely talking more about this in -- during the proceeding, but I -- I did want to bring this to your attention and summarize those accounting changes for the Board.

The next chart is -- is just a pictorial of our --

MR. RAYMOND LAFOND: Sorry, before we go to the next chart --

MR. VINCE WARDEN: Sure. Sure.

MR. RAYMOND LAFOND: -- I need to

understand very carefully what you're indicating. When you're talking of a percentage increase, you say after accounting for accounting changes. Do you really mean after or before?

MR. VINCE WARDEN: Well, if we -- if we turn back to page 19, so if you look at -- at 2011, for example, we started off with 403 million. That's the amount that we -- you can see in the annual report of Manitoba Hydro. We're taking out subsidiaries because they're not germane to this -- to this proceeding. And this is our -- mainly our Manitoba Hydro International. We're also deducting accounting changes. So we come down to $366 million compared to three hundred and sixty-six (366) -- three eleven (311) in the previous years. So the .8 percent decrease is -- is after making those adjustments.

(BRIEF PAUSE)

MR. VINCE WARDEN: So on page 21 it -- it does show this one, I think quite dramatically. The -- the vast majority, 77 percent of our operating, maintenance, and administrative costs are made up of wages, salaries, and benefits. The other components relative to the overall cost of Manitoba Hydro are --

are relatively -- relatively small.

On page 22 it does show the numbers of employees. And I've broken this down by bargaining unit, because it does serve to show where those employees are at Manitoba Hydro.

And as you can see from this chart, thirty-one hundred (3,100) of our sixty-three hundred (6,300) employees are in the IBEW bargaining unit. So these are the people that are out on -- in the field, keeping -- keeping the lights on. These are -- that's thirty-one hundred (3,100) employees at Manitoba Hydro.

The CEPU at the bottom of that page, two hundred and fifty (250) employees, those are the gas -- primarily all of our -- our gas employees, the people that are dedicated to the natural gas system, the field employees. The office people in -- in CUPE, twelve hundred (1,200) employees, those are the admin and technical staff, so the engineering technician staff, administrative support staff at -- at Hydro.

The bargaining unit, the group we refer to as AMHSSE, the Association of Manitoba Hydro Staff and Supervisory Employees, eight hundred (800), those are the people that essentially are -- are in the supervis -- supervisory ranks.

We have approximately five hundred (500)

engineers. So that's the Manitoba Hydro Professional Engineers Association, five hundred (500).

And the corporate exempt, four hundred and fifty (450), are -- include professional accountants, close to -- close to two hundred (200), about a hundred and eighty (180), I believe, professional accountants at Manitoba Hydro, including all -- all management and executive staff are included in that category, plus people in HR that deal with confidential in -- information that are not in a bargaining unit. So actually, the vast majority of the people in our human resources division are also in the corporate exempt category.

Just to show how -- and I did speak -- speak earlier about the -- the graph -- or the -- on the -- on the left-hand side of this page is where we currently are at September 2012. So we do have 16.4 percent of our total workforce is Aboriginal. And just to show the progress we've made over -- since the year 2000, back in 2000 we only had 7.4 percent of the workforce was Aboriginal. And it was largely a male-dominated workforce back in 2000. And since that time, the male workforce, as a proportion of the total, has shrunk significantly; still the maj -- major portion, but much lower than it was back in 2000.

Cost-constraint measures that have been in place for a number of years are travel, travel restrictions. So if we look at that one specifically, back in 2008/'09, we -- we spent 31.6 million on travel. We do -- you know, travel is a very big cost component -- or, cost at Manitoba Hydro. Although, in relative terms, as indicated in the previous slide, it's -- it's travel -- motor vehicles makes up about 8 percent of our total costs; but nevertheless, significant.

So in 2008/'09 our travel costs were 31.6 million. As a result -- partly as a result of the travel restrictions that are -- have been in place since that time, travel has actually declined to 31.3 million. So it stayed flat over those four (4) -- that four (4) year period. And Mr. Thomson referred to this in his opening remarks, that all travel that's out of country is -- goes directly to his office for approval.

There are -- I must say there are pros and cons to those kinds of restrictions. An example of this would be CAMPUT. Manitoba Hydro for the past three (3) years has not allowed and not sent anybody to CAMPUT for those -- for the past three (3) years because of our travel restrictions.

So, is that good? Well, you know, at

those kinds of organ -- those kinds of conferences, people do interact with their peers, they do -- they do perhaps pick up ideas that can be used in the business. So we can restrict travel, but there are -- there are consequences. And I guess we just have to -- have to recognize that.

The hiring -- hiring and overtime restrictions that have been in place have -- have been difficult -- very difficult to achieve. EFTs have increases overall over the -- over the past four (4) -- that same four (4) year period that I was referring to with our travel costs, our -- our salary -- wage and salary costs have gone up about 5 percent per year.

A number of different reasons for this, but even as we speak we are having difficultly keeping up with the amount of work that is out there. And we're -- there's a huge expansion in Western Manitoba in the oil field -- fields, for example, where they -- they're absolutely -- we just can't get the labour to -- we can't get the people to -- to do the necessary work in the western part of the province.

And we've had to go to contract labour. We had to hire contractors, which -- we're having difficulty with our bargaining unit. The bargaining unit is -- is actually taking us to arbitration over

that, taking us to the Labour Board because we're contracting out their work.

So, you know, we -- we -- we're compressed, definitely, in terms of the cost -- on the cost side of the equation. But we're also very much under pressure on the -- on the work that needs to be done.

Leveraging technology is another reference on this slide. We have -- we have been doing a num -- number of different things on the technology front. Probably the best example of that is our Mobile Workforce Management Program that is now being implemented. We -- and this allows crews to be dispatched from any location in the province. So rather than crews having to come into a central work location at which they get their work orders for the day, they are now dispatched in their vehicles directly to the work location. We're forecasting savings in the order of $2 1/2 million per year with -- with that new system.

Reductions and community sponsors -- sponsorships and donations. We have, in fact, cut that back to the absolutely minimum savings of about $3 million per year and certainly are getting reactions from the communities that we have historically

contributed to over the years.

Just to then on the -- on -- if we go - turn to page 26, this summarizes the General Rate Application. This is a different sequence than Mr. Peters reviewed in his opening remarks, but it is essentially the same.

It is in chronological order, starting with the -- the rate -- what we've referred to at Manitoba Hydro as a rate rollback associated with 2010 rates. So that's the 35 million that I referred to earlier in 2012/'13, plus a further 12 million in -- in '13/'14. We're seeking final approval of the 2 percent rate increase effective -- that was implemented April the 1st, 2012. This results in revenue of 25 million in 2012/'13 and 26 million in 2013/'14.

We're seeking final approval of the 2.5 percent as indi -- indicated in item number C; final approval of the 2.5 percent increase effective September the 1st, 2012; approval of the 3.5 percent effective April the 1st, 2013; confirmation of our SE - - SEP, the surplus energy program, and the CRP, curtailable rate program, orders; and final approval of the 6.5 percent diesel rate increase effective September the 1st, 2012. And this will result in additional revenue of 0.2 million in 2012/'13 and 0.3

million in -- in '13/'14.

The next few slides are just a summary of -- of what the rate structure is. I won't -- probably won't go over these in any detail but they're there for your reference. So that's on page 27, 28, and 29. Rate comparisons are provided to other utilities, as indicated on slide 30.

Thirty-one (31), Manitoba Hydro still enjoys the distinction of being the lowest-cost jurisdiction in North America. So the next lowest cost -- next lowest, compared to Manitoba Hydro, is Idaho, at six point two-four (6.24) cents per kilowatt hour. And these are the ten (10) lowest.

So if -- if you look at the markets that we're selling into in the US and Minnesota and -- and North Dakota, in that jurisdiction, they aren't on this chart, but they're just -- they're slightly -- their average rates are slightly above the rates that are indicated here.

We aren't, however -- if you turn -- turn to page 32, we aren't the lowest at all levels of consumption. So for 1,000 kilowatt hours per month, which is the typical usage for a residential customer in Manitoba, you'll see that in -- in Montreal they are -- are currently lower than -- than Man -- in -- in

Winnipeg today.

The next slide, 33, I do have to apologize. There is an error on this slide for both Montreal and Vancouver. If I can just maybe get you to pencil in the correct numbers there. The -- for Montreal for 2,000 kilowatt hours per month -- and we used 2,000 kilowatt hours per month because this is a typical electric heat customer. For 2,000 kilowatt hours per month in Montreal is a hundred and forty-three dollars ($143) per month, and in Vancouver, BC, it's -- it's one-ninety-five (195) instead of the two-seventeen (217) that's indicated there. All the rest of the values are correct.

I've also included a couple of slides just show -- showing the comparatives for different levels of general service usage at 10,000 kilowatt hours per month, and then a much larger customer at 12 million kilowatt hours per month. So in both of those examples, Manitoba Hydro is the -- is the lowest -- lowest of all jurisdictions.

Slide 36 summarizes the rate changes that we have had over the past number of years includ - - back to 2006, including the proposed rate increase of 3.5 percent for 2013. So it shows over that period of time, since 2006, the cumulative rate increases in

Manitoba have been 24.2 percent. Hydro Quebec is lower at 14.3 percent over that same period, as is New Brunswick at twenty three point seven (23.7). But other jurisdictions are considerably higher.

Despite the fact that we -- Hydro Quebec and New Brunswick have been lower over that period of time, the current rate index, using Manitoba Hydro as one hundred (100), you can see that the rates are still higher in those jurisdictions than they are on average than -- than in Manitoba.

I'm going to skip over the energy conservation programs. Ms. Morrison will be speaking to those in her direct presentation.

So if we go to risk management then, on page forty -- page 42, these are part of the -- the excerpt from the risk management report we prepare annually at Manitoba Hydro. And these are what we refer to as our immediate and emerging risks.

Domestic rate increases, of course, importance of -- of getting the rate increases that we're seeking is just of paramount importance to us. The major capital expansion program, of course, is a -- is a risk in terms of getting the regulatory approvals on time to meet our commitments and to ensure that we can build those projects within the -- within the

estimates that have been developed. Firming up the export contracts that are associated with that major development plan is also a major issue for us.

Export market prices that I referred to earlier, the very low export market prices, are affecting our finances in a very significant way and will continue to do so as long as they remain as low as they are. The whole shale gas phenomena and what -- how that's going to affect the future is still somewhat uncertain. But as we proceed, it looks like shale -- the low gas prices are going to be with us for a very long time.

The aging infrastructure issue is -- is a very important one for us. And as is the last item on this list, the attraction and retention of skilled workforce. This is a -- is one that's going to be more and more relevant to -- to Manitoba Hydro as we -- as the aging -- not only the aging infrastructure, but also the aging workforce enters retirement.

We do have to attra -- be able to attract skilled workers to Manitoba Hydro. We are having some difficulty with workers, technical workers, being attracted to neighbours in the -- in the West, especially into Saskatchewan and Alberta, where the salaries are quite a bit higher than they are in

Manitoba. So retaining skilled workers is a big issue for us.

I did refer earlier to the Aboriginal workforce. And I do believe that that's where we have to put our emphasis. And there's a very large untapped -- largely untapped workforce there that we -- we absolutely have to take advantage of. And train -- it means spending a lot of the money on training, but there is definitely a payback for that over the long-term.

The high consequent -- consequence risks that are identified on page 43 are similar to what we've identified in -- in previous years. Infrastructure, of course, the loss of -- of Dorsey or the DC line from Northern Manitoba is -- would be a huge loss for us and is the major risk. And it -- the -- would definitely exceed $2 billion depending on how -- on the severity of that loss. But it does, I think, point to the urgency for us to be building an alternative route for that power from the north.

And indicated earlier than 2011/'12, 80 percent of the power was delivered over the DC transmission line to southern Manitoba. We desperately need that Bipole 3 transmission line, which, of course, is the subject of another proceeding.

Drought. With the drop in export market prices the cost of drought has gone down accordingly at 1.6 billion. Loss of that export market though is still in -- in around 30 percent of our total revenue. And a 1 percent change in interest rate over the next ten (10) years will amount to about $700 million.

The -- I think the final slide is -- that I will review at this time is on page 45. This is IFRS, and Mr. Rainkie will be speaking more to this. But it does show the impact on -- the major impact of IFRS implementation is on retained earnings, as far as -- on the electricity side of our business it'll be a charge against retained earnings of $257 million.

The net income impact of $5 million is relatively -- relatively insignificant though. And that will be insignificant going forward, as well, as far as the impact on net income. So the major impact, retained earnings, one (1) time hit on retained earnings. And because our retained earnings are currently in -- at the two -- 2.5 billion level we can withstand that.

Other jurisdictions -- for example, BC Hydro -- have a much more difficult problem than we do with their deferral accounts in the billions of dollars, which is -- has presented a more serious

problem to them. So the problem of IFRS is not significant to Manitoba Hydro.

Mr. Cormie will be reviewing the situation with our current water conditions in his direct testimony. And thank you very much for your patience, Mr. Chair, members of the Board. That concludes my presentation.

THE CHAIRPERSON: I have some questions. And I guess it's probably an opportune time to ask them, if you don't mind. I'm guess I'm struggling with cost comparisons and -- from the various jurisdictions, and -- and I'm seeing all kinds of different numbers.

And particularly what I'd like to refer to is something that came out yesterday from the province that talks about a Deloitte Louche -- Deloitte Touche study that compares rates for electricity. And -- and this is in relation to the affordability legislation. In other words, the government has come out comparing rates for electricity, natural gas, automobile insurance, and so on.

And so I'm looking at this particular table, and it's showing Manitoba as having higher rates than Quebec. And which is -- which I'm having a tough time reconciling to the information that's in here,

particularly the reference to -- in page 3 as have -- us having the lowest rates in North America, and various other graphs that show Manitoba as having lower rates than are available in Quebec.

So I wonder -- you know, it's not -- you probably haven't seen this information and so I wonder if -- you know, let's -- let's defer the response of that until you've had a chance to respond back to --

MR. VINCE WARDEN: Mr. Chair, I don't -- I don't mind speaking to this now. I have seen this. And I would -- I would compare this though.

If you look at the narrative that's under the chart it does refer to electricity utilization of 11,000 kilowatt hours for the year. So that's very close to the average of 1,000 kilowatt hours per month that is referenced on page 32 of the information I just provided to you.

And as you can see on that page, on page 32, Quebec is in fact lower than Man -- than Winnipeg. So Montreal is lower than Winnipeg. And that is -- that's consistent with what -- what we're seeing on this chart prepared by Deloitte Touche.

THE CHAIRPERSON: So what I should be looking at basically is the information regarding rates that are contained in the graphs as opposed to

statements that we're the lowest and so on. So, okay, that's --

MR. VINCE WARDEN: Oh, we -- we are the lowest. There's no doubt about that. We are the lowest overall. If I can just refer you to -- well, let's look at page 36. This is -- this shows the current rates index.

So compared to Hydro Quebec, if we look at -- if we take it -- the -- the package of rates, that's for all -- all consumers, that's not only residential, but also all their larger commercial industrial customers, the average rate is higher in Quebec than it is in Manitoba by 10 percent. So it's -- the average rates are 10 percent higher in Quebec than in Manitoba.

But that doesn't mean they're -- they're higher for all classifications. So the residential classification is the exception.

THE CHAIRPERSON: Following up on that question, I -- I guess you -- you have referred to the -- the fact that there are some different costs in BC Hydro that are not -- that BC Hydro will have to address. And Quebec, I know, is talking about mothballing a nuclear plant, which will have a big impact on their financial results.

I guess what I'm wondering is, given that Manitoba Hydro is projecting significant cost increases over a considerable number of years, what will that do to the relationships that we're seeing in this particular table in terms of costs?

You know, I -- I'm trying to -- I'm trying to understand how Manitoba Hydro is going to maintain its position and costs relative to other jurisdictions so that we can continue to say that we have the lowest rates in -- in Canada?

MR. VINCE WARDEN: Well, we -- we don't know for sure. We -- we of course are in communication with our neighbouring util -- or other utilities in -- in Canada on a -- on an almost daily basis, but they don't divulge their plans to us as to what their next rate increase is going to be until it's publicly announced.

So, you're -- you're right, there -- there's the -- the situation in Quebec with the nuclear facility. We do expect, just looking at what's happening in those jurisdictions that their rate increases will be, if not on par with ours, even higher.

So we do believe going forward that we will maintain that -- that status that we have today of

the lowest provider. You know, we're taking advantage of -- of embedded costs that are very significantly lower than other jurisdictions because of some of the decisions that were made back in the mid-'60s to build the Nelson River.

There was a lot of risk associated with that at that time, probably even more so than what we're facing today with the development of new generation. But because those decisions were made, we're reaping the benefits of that. We've reaped the benefits of that for many years. I firmly believe that we will continue to do so in the future.

THE CHAIRPERSON: Now, turning to page -- this is the page related to the capital projects that are being forecasted on page 17. And this is a question that I've been meaning to ask for some time, and -- and it relates to my reading of -- of events transpiring south of the border. And specifically in -- you know, there's a -- there's a wind synergy study going on in MISO dealing with Manitoba Hydro's planned projects and, you know, they're talking about some significant transmission projects down south of the border.

And I guess the question I'm asking is I know that there's a cost attribution that's part of the

MISO formulas, you know, attribute costs to the people who will benefit from the transmission. I guess the question I have is: If -- if those developments south of the border were to occur, is Manitoba Hydro expected to pick up some of those costs?

MR. VINCE WARDEN: I think the -- the best person to speak to that is Mr. Cormie, so I'll turn that question over to him.

MR. DAVID CORMIE: The -- the transmission build that's occurring in the United States in Minnesota and North Dakota to bring renewable resources to eastern markets is -- is ongoing. Those transmission costs can be regionalized through the multi-value project process that MISO has -- has in place.

Manitoba Hydro's interconnection potentially could qualify for some of that regional cost sharing. However, the -- there's -- there's -- we would have to wait for several years before we would find out whether that project could be -- could qualify. Manitoba Hydro can't wait to find out whether those transmission assets would qualify. And so we've proceeding -- we're proceeding with -- with the project in the United States as a participant-funded project. It will be paid by the utilities who -- who are

building the project.

The wind synergy study is to demonstrate to the -- to the MISO and to the transmission owners in the United States that it will provide regional benefits and will be good for all -- all the regions. And -- and it creates a favourable regulatory and political climate for, essentially, a private transmission line to be built across -- in Minnesota.

THE CHAIRPERSON: Now, then, in relation to looking at the risks, and I guess one of the -- one of the things that's coming out from the United States is -- been growing attention to cybersecurity. And I notice that it's not mentioned as an emerging risk by Hydro. Now, I -- it's not to say that Hydro isn't paying attention to that.

Could you -- could somebody address that particularly, what, if anything, is going on in that area?

MR. VINCE WARDEN: Absolutely. We do pay attention to that. We do -- and I believe it's either filed or to be filed -- a corporate risk-management report that's prepared annually by Manitoba Hydro. And we identify something like fifty-eight (58) categories of risks in that report. So this is just an excerpt from that report that we've identified as

immediate and -- and emerging.

But certainly, cybersecurity is one that's been on our radar for many years, and it's part of that -- part of that report.

MR. RAYMOND LAFOND: My first question in -- is in terms of the non-controlling interest, which has a significant impact on your income, how is that treated in your integrated financial forecast 2012?

MR. VINCE WARDEN: Yes, the 2012 financial forecast is -- has been prepared strictly in accordance with the development agreement that was negotiated back in 2006. So that -- the forecast reflects what would happen under the cost-sharing/revenue-sharing agreement that was negotiated with the First Nation.

We recognized when we put that forecast together we had a dilemma, because we knew that what had happened in the export market, that there was no possible way that that was going to transpire as -- as -- as it was originally negotiated. That would provide no return to the First Nation. In fact, it would be a burden on the First Nation, which was not consistent with the spirit and intent under which that agreement was negotiated.

Nevertheless, because we were under negotiations with the First Nation, it was -- we determined that our only option was to prepare it based on the agreement that we had officially approved.

We're very close to getting another agreement negotiated. We -- I -- I am certain, as I indicated earlier, that it will be very different. It will be quite different from what we currently have, such that the First Nation will not be contributing towards the losses being incurred on Wuskwatim in their early years. And it is only the early years of Wuskwatim where we are projecting losses.

If we -- and we look at a plant like Wuskwatim is going to last for approximately a hundred (100) years, so the first ten (10) are going to be difficult. The first ten (10) are going to be difficult for us. But beyond that, Wuskwatim will generate significant revenues.

MR. RAYMOND LAFOND: Can -- can -- can you, therefore, expand on this? Because when I look at your IFF12, page 23, or the first page under tab -- IFF12, I -- I identified the figures , non-controlling interest, fourteen (14) and twenty-four (24) you alluded to earlier in your presentation. But that goes down to three (3) or four (4) and then minus three (3).

And then in the following years, it becomes a fairly large negative number.

So -- like, I -- I need to understand --

MR. VINCE WARDEN: Yes.

MR. RAYMOND LAFOND: -- why this happens.

MR. VINCE WARDEN: Yes, and I think that's consistent with what I -- what I just said. The first ten (10) years are going to be difficult. So this shows the First Nation contributing towards our net income. So they're adding to the -- the net income that we would otherwise have achieved for the -- that first ten (10) years of the forecast, up until 2021.

In 2022 it turns around, and Wuskwatim starts earning a profit, which is a return to the First Nation. So it's a deduction from our net income in those years.

MR. RAYMOND LAFOND: Okay. So the typical --

MR. VINCE WARDEN: So the total -- the total revenue from Wuskwatim is included in -- if you look at the revenue side of -- of the same statement on page 23 that you were referring to, the total number from Wuskwatim is included in there. Then what we do is we take out the portion that's attributable to the

First Nation, their 33 percent comes out at -- as it -- as an adjustment to net income under the non-controlling interest line.

MR. RAYMOND LAFOND: So the difficult first ten (10) years are for the partner, not for the Manitoba Hydro, because it -- it reverses after ten (10) years?

MR. VINCE WARDEN: Well, they're especially difficult for the partner, for the First Nation, because they just don't have the resources to contribute to that order of magnitude. They're difficult for Manitoba Hydro as well. But the formula though that's developed for purposes of deriving revenue is the export market.

So for the revenue-sharing formula that's in the agreement is export market be -- it's because of the low export market that -- the low prices on the export market that we're seeing this -- what -- these results. In fact though, Wuskwatim is being used to serve the integrated system and, therefore, the export market. If you look at the impact on Manitoba Hydro in isolation, the -- we're not going to see the same impact because we're, in fact, using Wuskwatim to serve the Manitoba load.

MR. RAYMOND LAFOND: To --

MR. VINCE WARDEN: To serve the Manitoba load.

MR. RAYMOND LAFOND: Okay, thank you. My second question is -- or, comment is: The whole issue of recovery at the end of the forecast -- like, it looks very nice at the end of the forecast, that twenty (20) year period, all of a sudden there's a billion-dollar surplus by Manitoba Hydro. But that's a very long time period, especially when, in this day and age, new technologies can come about and, you know, dams or stations have been amortized over a hundred or more years.

How -- how do you factor this in?

MR. VINCE WARDEN: Well, there are -- you're absolutely right, there are new -- new technologies on the horizon, solar power being one, wind power. But any of the new technologies, first of all, that are -- they're considered to be clean -- solar and wind -- the costs are significantly -- significantly higher than what can be generated even by the new -- new facilities we're putting in.

So our cost per kilowatt hour for new generation for Conawapa, Keeyask is going to be in the order of nine (9) cents per kilowatt hour. But if you look at the cost of wind, solar especially, is -- if

mul -- is multiples of that. So the hydraulic generation is -- is the most competitive form of -- of energy that's non-greenhouse-gas emitting.

Now, natural gas, of course, is -- we are competing with natural gas, but they're -- natural gas is still a fossil fuel. And we believe in the future there's going to be car -- price -- a premium for carbon that will -- that will benefit hydraulic generation even more so in the future. And that's built into the forecast.

MR. RAYMOND LAFOND: Okay. Maybe -- you provide us calculations of increased -- increases in OMM (sic) costs after the accounting changes.

Could you provide them to us as to what -- as to what they would be before the accounting changes, because that would offer a consistency with the previous years?

MR. VINCE WARDEN: I believe Mr. -- Mr. Lafond, one of the charts, in fact, does show -- well, it show -- if you look at page 6, it shows from 2009 to 2012. So that's a 10 percent increase over that period of time that is not adjusted -- not adjusted for any -- any accounting changes, so.

MR. RAYMOND LAFOND: Okay.

MR. DARREN RAINKIE: Just one (1)

addition to that. In Tab 5 of our Application, we go through each of the revenue and expense line items. I think in there we calculated the -- you know, the nominal increase, as well, year over year. So that -- that may assist in reviewing the material.

MR. RAYMOND LAFOND: Thank you. Whenever you do all these analyses of -- of projections for the future, generally speaking you have a worst-case scenario, a best-case scenario, and a most likely.

I suppose that would be the most likely scenario, in your mind?

MR. VINCE WARDEN: Yes, that's right. And -- and you're absolutely right. We do do scenario -- many scenarios with worst case, best case, and expected. And this is the expected, which is in between.

MR. RAYMOND LAFOND: A worst-case scenario for the panel could also be, I guess, very important in terms of understanding the impact of a worst-case scenario over the next ten (10) to twenty (20) years, for instance, because without that you really do not have a good understanding of what the possible downside is in terms of actual results.

And I know you've identified risk factors but we don't really have dollar amounts

attached to these, or estimates attached to these.

MR. VINCE WARDEN: Mr. Lafond, we do on -- on the financial forecast document that you're referring to on page 17, we do refer to refer to -- there is a sensitivity analysis. So if you look at, for example, low export prices.

MR. RAYMOND LAFOND: That's on -- okay, thank you. Got it.

MR. VINCE WARDEN: Page 17. So if you look at -- if -- if we do encounter even lower export prices than we have in the forecast currently there is a potential to -- for the forecast revenues to go down another $420 million over that ten (10) year period. Conversely, if there -- we have the high export price forecast, those revenues will go up a further 425 million.

(BRIEF PAUSE)

MR. RAYMOND LAFOND: Thank you. I can -- on -- on your future projection in terms of capital costs and -- and projects -- and -- and you may be looking at that later on and I'll wait for then -- for that then, but when I look at, for instance, the -- the amount of production you get out of Keeyask versus

Conawapa, and I'm not sure about Point du Bois, and related to the costs of such projects, it seems to vary a lot in terms of produc -- of -- of the cost per kilowatt hour.

And -- and will you be getting us these -- these numbers?

MR. VINCE WARDEN: I don't believe the cost per kilowatt hour is part of our -- our filing. Keeyask and Conawapa, though, under average flow conditions are very similar. As I mentioned earlier, I -- I believe it's eight point nine (8.9) cents per kilowatt hour for both Keeyask and Conawapa.

MR. RAYMOND LAFOND: That surprises me because the production under Keeyask is less than half of the estimated production under Conawapa but the cost is well over half, like 60 percent. And generally speaking the majority of costs are depreciation and interest.

(BRIEF PAUSE)

MR. VINCE WARDEN: Yes, the -- actually I -- I do have a calculation of that which I can certainly provide to you, if you like, but I -- the unit cost of Keeyask based on an assumption of 6.2

billion capital costs amortized over sixty-seven (67) years -- we've used sixty-seven (67) years as the estimated service life on average of all components. The average energy -- so it really -- not only do you have to look at the capital cost but you have to look at the average energy that you -- you can derive from that facility.

So the average energy out of Keeyask is 4,430 gigawatt hours per year. So if you work that through it comes out to eight point six (8.6) cents per kilowatt hour. Conawapa, 10.2 billion capital cost. The amount of energy we're getting our of Conawapa on average will be 7,000 gigawatt hours per year at a unit cost of eight point nine (8.9) cents per kilowatt hour.

You can compare that to Wuskwatim, for example, 1.8 billion. And that includes transmission for Wuskwatim, average energy of 1,515 gigawatt hours aver -- the unit cost is seven point three (7.3) cents per kilowatt hour.

And just for further comparison, if you're interested, going back to Limestone, when we installed Limestone at 1.4 billion, the unit cost of Limestone is about one point two (1.2) cents, one point two (1.2) cents per kilowatt hour.

MR. RAYMOND LAFOND: Okay. And what

would Pointe du Bois be once you restore it? I imagine with possibly more capacity or -- for --

MR. VINCE WARDEN: We're not getting a lot more -- a lot more capacity. We -- we really don't have a choice on Pointe du Bois, we have to restore it. And we won't be getting a lot more generation. But I think maybe Mr. Cormie could probably speak more to that. Are -- do you want to speak to that, Dave?

MR. DAVID CORMIE: The plan for redeveloping the powerhouse assumes today that we would just replace what we already have and not to develop any more capacity. However, we will be putting in more modern efficient turbines and capturing the additional efficiencies from that, so there will be a slight increase in -- in the -- in the production from the generating station.

But the amount of -- the forebay level will be the -- essentially the same and -- and the tail water will be essentially the same.

MR. RAYMOND LAFOND: So -- so the -- if -- if I remember correctly from memory the total cost is about $2 billion. How much would that, you know, in terms of the production, how much would it be in terms of -- per kilo -- kilowatt hour, a cost per kilowatt -- kilowatt hour over there?

MR. DAVID CORMIE: We haven't done that calculation yet, Mr. LaFond.

MR. RAYMOND LAFOND: Will you provide it to us later in -- in -- during the hearings?

MR. DAVID CORMIE: Yes, we can estimate that for you.

MR. RAYMOND LAFOND: Thank you.

--- UNDERTAKING NO. 1: Manitoba Hydro to provide an estimate of the total cost per kilowatt hour for Pointe du Bois

MR. DAVID CORMIE: The -- yes. Mr. LaFond, the -- the difference between the various sites that we've talked about at Keeyask and Conawapa, they pass the same river flow. They're essentially -- one (1) is downstream, the other -- the difference is the difference in head.

At Conawapa you have a head of about 100 feet, that's the drop of water. At -- at Keeyask it's -- it's much less than that, 60 percent of that. And so when you build a bigger dam you're not -- the top isn't any different, it's the bottom that gets bigger, it's like a pyramid, and so the costs of Conawapa are

significantly more at Conawapa because you have a -- a taller dam and the foundation conditions there are extremely more difficult than what we have upstream. And so the costs are more in spite of the fact that it's producing more energy. The -- the --

MR. RAYMOND LAFOND: But I'm wondering in terms of the cost per kilow -- kilowatt hour for the output of one (1) versus the other.

MR. DAVID CORMIE: Yes, and I think Mr. Warden gave you those numbers.

MR. RAYMOND LAFOND: My last question is, when you do your forecasts for the future and -- and considering the IFF12, when I look at the increases you're projecting over the next while -- and essentially I think it's under Tab 1, or IFF12, page 23.

When I look at your projected general rate increases for electricity and then for gas it is essentially -- well, many times more in terms of electricity than gas. So therefore in your projecting -- projection, are you looking at the possibility of Manitobans switching from electricity to gas, because after ten (10) or twenty (20) years it becomes -- it is already quite a bit more economical to heat, for instance, with gas than electricity, but that will

really compound the issue. And have we considered that?

MR. VINCE WARDEN: Mr. Lafond, I -- I just want to make clear that the increases you're seeing here for gas are for distribution only. That does not incl -- include anything for the commodity. So that's only the cost of operating the pipes.

So the commodity, who knows? In the future, gas, if it's been as volatile as it has been in the past, it could be many multiples of what it is today. I'm not suggesting it will be, but -- but it's unpredictable. And gas prices historically have been very unpredictable and -- and volatile.

MR. RAYMOND LAFOND: Thank you. That clarifies, in my mind, the basis of your calculations. Thank you.

THE CHAIRPERSON: Just one (1) -- just one (1) more question before we break.

MR. LARRY SOLDIER: I understand in your -- one (1) of your risks or challenges is hiring restrictions, and I noticed you expressed some -- a little bit of frustration in the fact that you're not able to hire more people. And I'm just -- I was looking at a project in Thompson, and I was advised that I needed about a year's lead time to ensure that I

had hydro service at that location. And I know in Southern Manitoba at times you need six (6) weeks' lead time in order to -- to have service at a -- at one of your projects.

And I was just wondering if the fact that there's hiring restrictions doesn't permit you to respond more quickly to -- to new builds or new construction? And I was also just wondering if that is as a result of the hiring restrictions or the lack of -- of qualified tradespeople out there?

MR. VINCE WARDEN: Well, Mr. Soldier, we are constantly, at Manitoba Hydro, juggling priorities. We -- we send work crews all over the province to -- to meet the highest-priority jobs. But I wouldn't say the hiring restrictions have necessarily impeded customer service. I -- I think that we've hired the people we think we need to get the job done.

We have to be careful, though. We do -- there are peaks and valleys, like any other business. There are certain months where we -- we -- we don't have the same peak workload requirement. And we've got to make sure we don't staff for the peaks. So we've got to manage that workforce accordingly. And that's why in some areas we are using contract labour, because we know it's a short-term duration. We don't want to

be putting people on the payroll that we're going to have to lay off at some point in the future.

So I think we're trying to manage those resources as best we can, based on the work loads that are out there. I don't think six (6) weeks is unusual to wait for -- for a service. I do find a year, though --

MR. LARRY SOLDIER: Yeah.

MR. VINCE WARDEN: -- that to be unacceptable. And I'd have to look into that specific circumstance.

MR. LARRY SOLDIER: And that's all I was -- that's all I was advised. And so I was kind of finding if there was a correlation to the fact do you -- you don't have the people -- people that don't want to move to the North as opposed to the South?

MR. VINCE WARDEN: That is a whole other issue. Attracting/retaining people in the North is -- is a huge issue for us. And that's -- and that's why it's so important to us to train people that are resident in the North to do the jobs in the North. And we're -- we're already, you know, a proportionate workforce at forty-one (41), but we have to go higher.

(BRIEF PAUSE)

MR. VINCE WARDEN: Unless Mr. Soldier wants me to look into it specifically, no, I wasn't taking that as an undertaking, but . . .

MR. LARRY SOLDIER: No.

MR. VINCE WARDEN: No. Okay.

THE CHAIRPERSON: I suggest we break now and return in for -- resume -- resume the proceedings at 11:00.

--- Upon recessing at 10:45 a.m.

--- Upon resuming at 11:03 a.m.

THE CHAIRPERSON: The panel has no fur -- no further questions, so I'll turn the mic over to you, Ms. Ramage.

EXAMINATION-IN-CHIEF BY MS. PATTI RAMAGE:

MS. PATTI RAMAGE: Thank you. And I have one (1) further question of Mr. Warden. And that is simply, Mr. Warden, can you confirm that on behalf of the Corporation you adopt the evidence the panel members are going to be providing throughout this Hearing?

MR. VINCE WARDEN: Yes, Ms. Ramage. I do adopt the evidence. I believe, though, there is one

(1) minor correction to our rebuttal. And this was on page 10 of 63, and it's in reference to the CPI numbers. I believe we had numbers that were represented. We had a problem with point of time versus average so to be consistent the -- with our -- the way we're expressing the future CPI projections, the chart on -- labelled as Figure 2 should be for 2009/'10 actual, 0.4 percent, okay; CPI instead of one point four-zero (1.40). 2010/'11 should be two point zero (2.0) CPI instead of three (3) point --

MR. RAYMOND LAFOND: Can you tell us what you're looking at, please?

MR. VINCE WARDEN: I'm sorry. Yes, it's Manitoba Hydro's rebuttal evidence at page 10 of 63. And it's -- yes, Figure 2. So the -- I'll just read those numbers again. Instead of the one point four-zero (1.40), three point three-zero (3.30), and one point nine-zero (1.90) for the three (3) fiscal years, it should be zero point four (0.4), two point zero (2.0), and two point eight (2.8).

(BRIEF PAUSE)

MR. VINCE WARDEN: Thank you.

MS. PATTI RAMAGE: Thank you. And I'm

going to now move down the row to Mr. Rainkie.

Mr. Rainkie, could you please state your name and responsibilities at Manitoba Hydro, including your responsibilities with respect to this filing?

MR. DARREN RAINKIE: Good morning, Mr. Chairman, members of the Public Utilities Board, and ladies and gentlemen. My name is Darren Rainkie, and I'm the corporate controller at Manitoba Hydro. I'm a chartered accountant, chartered business evaluator, and also have a bachelor of commerce honours degree from the University of Manitoba.

I have testified before the Public Utilities Board of Manitoba on a number of occasions, including the last Manitoba Hydro rate application, and in a number of Centra Gas rate proceedings in -- in the past.

I have held my current position at Manitoba Hydro since 2008, and my division is responsible for financial reporting and accounting research, the coordination of operating and capital budgets, the provision of management accounting services to our business units, and financial forecasts.

Prior to my current position, I held various management and financial positions at Manitoba

Hydro and Centra Gas, as well as Price Waterhouse Chartered Accountants.

My main responsibilities relative to this filing were the prep -- preparation of materials associated with the integrated financial forecast, financial results and forecasts, and the capital expenditure forecasts that were included in Tabs 4 to 6 of the original Application, as well as the IFRS status update report and the depreciation study.

MS. PATTI RAMAGE: Mr. Rainkie, could you please elaborate on the status of IFRS implementation at Manitoba Hydro?

MR. DARREN RAINKIE: Certainly. The original filing was based on IFF11-2 which assumed that IFRS would be implemented at Manitoba Hydro in 2013/'14, which is the second test year in the Application.

On September 19th, 2012, the Accounting Standards Board of Canada announced that it had decided to extend the existing deferral of the mandatory IFRS changeover date for rate-regulated entities by an additional year, to January 1st, 2014. Manitoba Hydro will take advantage of the further one (1) year deferral of IFRS and will implement IFRS in its 2014/'15 fiscal year. The deferral has been reflected

in IFF12.

MS. PATTI RAMAGE: And could you update the Board on the current status of rate-regulated accounting under IFRS?

MR. DARREN RAINKIE: Yes. The primary reason that the Accounting Standards Board of Canada granted the further deferral was that the International Accounting Standards Board had signalled its support to give priority to reviewing the rate-regulated accounting issue and had reinitiated its rate rated -- rate-regulated activities project.

At this time, the International Accounting Standards Board is still deliberating how to move forward on the whole rate-regulated issue, and its staff has recently issued a paper that provides a number of options, including issuing an interim standard in late 2003 (sic), that would grandfather existing practices until a final standard could be developed sometime in 2016.

However, while there was potential that an IFRS standard may be developed that would allow for the recognition of rate-regulated accounting, there has been no further accounting guidance issued at this time.

MS. PATTI RAMAGE: Mr. Rainkie, what

are the implications of the deferral of IFRS on IFF12 in the two (2) years in the Rate Application?

MR. DARREN RAINKIE: As a result of the further one (1) year extension, Manitoba Hydro will defer the adoption of further changes to overhead capitalization practices, implementation of the equal life group depreciation procedure, the removal of net salvage costs from depreciation rates, and the derecognition of rate-regulated assets from 2013/'14 in the original Application to 2014/'15 now in IFF12. As a result, there are no IFRS impacts contained in the 2012/'13 or '13/'14 test years presented in IFF12.

The impact of the deferral on electric operations forecast for 2013/'14 is to increase net income by 7 million and to defer a retained earnings writeoff of approximately 268 million.

MS. PATTI RAMAGE: Mr. Rainkie, could you please explain the changes that Manitoba Hydro has implemented as a result of the recent depreciation study that impact the 2012/'13 and 2013/'14 test years?

MR. DARREN RAINKIE: Manitoba Hydro recognizes depreciation expense on a straight-line basis over the estimated remaining service lives of its assets based on depreciation studies that are conducted periodically, typically every five (5) years. The last

depreciation study was completed in July 2006, and the resulting depreciation rates were implemented effective April 1st, 2007.

The current depreciation study was initiated in 2009 and completed in October of 2011 with the assistance of an external consultant, Gannett Fleming Inc. This depreciation study was different than past studies in that in addition to the updated service lives of the assets, it also included an assessment of IFRS-compliant depreciation practices and methodologies, as Manitoba Hydro would eventually be transitioning to IFRS.

This study also differed from past studies due to the availability of enhanced asset condition assessment information that was not available for the 2005 study. For certain asset classes, this has resulted in less reliance on statistically developed asset lives and more reliance on the enhanced operational information. This is the case with respect to distribution plant, where the increased reliance on operational information has resulted in an extension of the service lives and a corresponding reduction in depreciation expense.

With the deferral of IFRS implementation to 2014/'15, the only impacts of the depreciation study

that are contained in the 2012/'13 and 2013/'14 test years relate to changes made to the asset component groupings and updated service life estimates, which were implemented effective April 1st, 2011.

THE CHAIRPERSON: I'm sorry, I missed the last part.

MR. DARREN RAINKIE: April 2011.

THE CHAIRPERSON: No, the -- you said asset component grouping, and what was the other one?

MR. DARREN RAINKIE: Oh, the asset component groupings and the updated service lives.

THE CHAIRPERSON: Okay.

MR. DARREN RAINKIE: Those were both implemented effective April 1st, 2011.

The impact of these changes in IFF12 is to reduce depreciation expense by approximately 40 million in 2012/'13 and approximately 44 million in 2013/'14.

CONTINUED BY MS. PATTI RAMAGE:

MS. PATTI RAMAGE: And can you then outline the depreciation study changes that Manitoba Hydro is proposing to implement commencing 2014/2015?

MR. DARREN RAINKIE: Manitoba Hydro is proposing two (2) further changes that result from the

depreciation study commencing in 2014/'15.

The first change is to move to the equal life groof -- equal life group, or ELG, procedure to calculate depreciation rates. Manitoba Hydro currently uses the average service life, or ASL, procedure with group asset accounting to calculate depreciation rates.

As part of the depreciation study, Manitoba Hydro has concluded that the ELG procedure is the preferred method of calculating depreciation rates, as it considers the expected retirement pattern for each asset within an asset class and produces an even pattern of depreciation expense that fairly reflects the assets in use each year throughout the life of a pool of assets.

The second change is the removal of net salvage costs from depreciation rates. While the inclusion of these costs and depreciation rates is a valid approach under the current rate-regulated accounting model that exist in the two (2) test years, including these costs and depreciation rates is not permitted under IFRS.

Under IFRS the future cost to retire and salvage assets will become a cost of the replacement asset. The combined impact of these two (2) depreciation policies' changes for electric operations

in 2014/'15 is to reduce depreciation expense by approximately $27 million.

MS. PATTI RAMAGE: In Mr. Bowman's evidence filed on behalf of MIPUG he describes the ELG depreciation procedure as being unfair to customers and inconsistent with hydroelectric utility and IFRS requirements.

Do you have any comments?

MR. DARREN RAINKIE: Yes, I do. In terms of fairness to customers, as a result of the even pattern of depreciation that I mentioned in the previous response, the ELG procedure improves intergenerational equity by better matching the amortization of the costs of an asset to the life of the asset in use, ensuring a fair allocation of the costs of these assets to those customers that bene from -- benefit from their use.

The ELG procedure is consistent with the operations of a hydroelectric utility when you consider that the primary function of Manitoba Hydro's assets is to ensure an adequate and continuing supply of electricity for domestic customers each and every year.

Recording depreciation expense based on the forecast profitability of generating stations, as it appears to be suggested by Mr. Bowman, is not

consistent with IFRS and would not be considered a rational or systematic method of depreciation. In fact, a recent IFRS exposure draft related to International Accounting Standard 16, that's the property, plant and equipment standard, clarifies this and indicates that a depreciation method that uses revenue generated from an asset is not an appropriate depreciation method.

MS. PATTI RAMAGE: In Mr. Bowman's same evidence he characterizes that changes that Manitoba Hydro has implemented to it's overhead capital -- capitalization practices since 2008/2009 as aggressive and inconsistent with the Corporation's future capital plans.

Do you agree with these characterizations?

MR. DARREN RAINKIE: No, I do not. The changes that Manitoba Hydro has implemented to date to its overhead capitalization practices are not aggressive, and are not an early adoption of IFRS, as has been suggested during the information request process.

Rather, these changes recognize Canadian ulit -- electric utility industry trends to move away from full-cost accounting and are designed to ensure

that Manitoba Hydro's practices are consistent with other Canadian electric utilities.

These changes are compliant with generally accepted accounting -- Canadian generally accepted accounting principles and have been endorsed by Manitoba Hydro's external auditors, as Mr. Warden mentioned in his opening directive. These changes are also consistent with the past recommendations of the Board for rate-setting purposes.

Contrary to Mr. Bowman's conclusion that Manitoba Hydro was now expensing costs that are more appropriately capitalized assets, an examination of the nature of the costs indicates that they are not direct capital expenditures. Rather they are sunk costs like building depreciation and information technology infrastructure costs, or costs that do not vary directly based on the level of capital activity, such as executive costs for instance.

Without a direct relationship to the capital asset these costs are more closely linked to current operations. And as such it is appropriate that they be expensed. There is no inconsistency between expensing these costs and Manitoba Hydro's future capital plans.

MS. PATTI RAMAGE: Mr. Rainkie, both

MIPUG and CAC have expressed concern that Manitoba Hydro has not pursued any mechanisms to mitigate the rate impacts of accounting changes like a number of other utilities.

Can you address their concerns for the Board?

MR. DARREN RAINKIE: Yes, I can. Manitoba Hydro has reviewed its financial reporting options, but they are limited given that public sector accounting standards require that government business enterprises such as Manitoba Hydro adopt IFRS for financial reporting purposes.

However, Manitoba Hydro has been making any changes that are necessary and permitted under Canadian general -- generally accepted accounting principles gradually over the past number of years in an effort to transition them into customer rates and moderate the impact on customers.

Manitoba Hydro has, like a number of other Canadian Crown utilities, deferred the implementation of IFRS for three (3) successive years as permitted by the Accounting Standards Board of Canada and continues to monitor the develops -- developments of the International Accounting Standards Board with respect to rate-regulated accounting to

ensure that when it does transition to IFRS it is with the lowest possible impacts to customers.

As Mr. Warden outlined on page 45 of his presentation the income statement impacts of IFRS transition to Manitoba Hydro are not significant. On -- on that page you'll find an increase in net income of $5 million in 2014/'15.

While the potential writeoff of rate-regulated assets is not a welcome event, Manitoba Hydro is in a much better position than other utilities where the balances of rate-regulated assets were so large that the writeoff would have totally depleted their retained earnings. Other utilities really had no other choice but to move to US generally accepted accounting principles or adopt a modified IFRS approach.

But more importantly than what others are doing, even if the lobbying efforts to recognize rate regulated accounting are unsuccessful, Manitoba Hydro has the flexibility to accommodate the writeoff of the associated amounts within the cost of service rate-setting methodology without the need for near-term compensating rate increases.

This also serves to demonstrate why maintaining an appropriate level of retained earnings for uncontrollable events is so important to the rate

stability of Manitoba Hydro customers.

MS. PATTI RAMAGE: Thank you, Mr. Rainkie. Does that conclude your direct evidence?

MR. DARREN RAINKIE: Yes, it does.

MS. PATTI RAMAGE: Mr. Chairman, I can move onto Mr. Cormie's direct, or if you have any questions of Mr. Rainkie...?

MR. RAYMOND LAFOND: You said because of the delay, if I understood correctly, you would continue for the time being the capitalization of overhead -- Manitoba Hydro overhead costs attributable to construction?

MR. DARREN RAINKIE: Yes, we would make -- we would -- we were planning a further change of approximately $36 million in 2013/'14 when we thought IFRS was going to be implemented in that year. Now that it's been deferred one (1) year we have deferred those changes to 2014/'15.

MR. RAYMOND LAFOND: Because it will not have to be implemented retroactively?

MR. DARREN RAINKIE: It sill will have to be implemented retroactively to your previous fiscal year but we have delayed it for rate-setting purposes until it's actually implemented in our financial reporting system.

MR. RAYMOND LAFOND: Thank you.

THE CHAIRPERSON: Waiting for IFRS is the accounting equivalent of waiting for Godot. But -- but you did say something that I want to pick up on, and you did say that you are attempting to attenuate the full impact of -- to the extent that you can, the full impact of -- of the significant changes that will occur when you do implement IFRS.

Could you talk about that a little bit?

MR. DARREN RAINKIE: Sure. I -- I addressed in my remarks the -- the whole issue of removing net salvage costs from depreciation rights. And as I said that's a -- that's a valid regulatory principle.

But in looking at, you know, the overall impact of -- of IFRS, removing those costs for depreciation rates will help us to manage the impact on customers. It's one (1) of the offsets of some of the higher costs that we will have to recognize under IFRS.

So we have -- you know, contrary to what the Intervenors have said, tried very carefully to manage the implementation of IFRS so it did not have a big impact on our -- on our income statement. And we are in a fairly inevi -- inevitable position of -- of -- you know, of only having $257 million write-off if

rate-regulated accounting doesn't survive the -- the next review, whereas as Mr. Warden mentioned others have $2 billion of rate-regulated assets.

So -- so we can very much manage the impacts of IFRS within both financial reporting and within rate setting. We don't have to resort to fairly extraordinary means of moving to US GAAP, and other means that other utilities have used.

So -- and we don't have to resort to having a second set of books and confusing, you know, everybody. I mean, we already have probably twenty (20) binders of material in front of the Board right now. If we did that, imagine all the reconciliations.

So -- so it's manageable within our cost of service framework where we try to have reasonable average rate increases over time. We don't, under the cost of service methodology, have to recoup that writeoff if it does occur, you know, in one (1) year.

We -- we can take that into our retained earnings, as Mr. Warden mentioned, fairly easily. I mean, it's not a welcome event but it's manageable for us.

THE CHAIRPERSON: Now I'm trying to recall Mr. Warden's -- Warden's words this morning, and he did talk about being on the outer edge of

capitalization and of overhead costs. And -- and I guess the question is: The -- the changes that you have effected, are you stepping away from the outer edge in -- in terms of -- of -- or are those going to be effected primarily through -- once IFRS is -- is fully implemented?

MR. DARREN RAINKIE: I think generally we're moving into the -- into the mean or the median with these changes. We've -- as part of, you know, our whole IFRS transition looked at practices in other jurisdictions and considered the -- the past recommendations of the Public Utilities Board, because in -- in -- particularly in Order 116/08 they were concerned about our -- our overhead practices of being a bit aggressive.

And so in -- in doing that we've pulled ourself to be consistent with what we believe the practices of other Canadian electric utilities are.

MR. RAYMOND LAFOND: When I'm listening to all this I'm trying to relate this back to page 20 as was given to us by Mr. Warden. And precisely my question is, these accounting changes you're talking of postponing for one (1) year, are they totally included in here?

Is -- we're looking at up to,

eventually, $75 million less per year in terms of costs being capitalized, if I read this correctly.

MR. DARREN RAINKIE: This -- this chart has been updated to be consistent with IFF12. So there is a further $36 million worth of accounting changes that would occur in 2014/'15. What's depicted on this page, page 20, is those accounting changes that we've made up until the 2012/'13 year, the current fiscal year, which will continue on to 2013/'14. So to be fully IFRS-compliant there are further changes that have to be made.

MR. RAYMOND LAFOND: Are these to be IFRS-compliant or just to follow GAAP, Canadian GAAP?

MR. DARREN RAINKIE: That's a good question, because I think there's, you know, been some misunderstanding through the material on this. The -- the changes that are depicted on this page are under Canadian Generally Accepted Accounting Principles to be consistent with other electric utilities. The -- the further $36 million change will be what we need to do to be compliant fully with IFRS.

MR. RAYMOND LAFOND: So the further $36 million needs to be added to every one of these numbers at the bottom of page 20, the total?

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

conclusion. Sorry, just for -- for clarity, in 2 -- starting in 2014/'15 that would occur, because that's the year that we're assuming IFRS implementation right now.

MR. RAYMOND LAFOND: Starting in '14/'15?

MR. DARREN RAINKIE: Yeah, in 2014/'15.

(BRIEF PAUSE)

THE CHAIRPERSON: I think we're going over the ground -- I'm going over the same ground again, but I'm looking, again, at page 20. And I think this is a quotation I've written down from Mr. Warden, which described it as, "Not IFRS changes, but IFRS-related."

Now, I guess this is the ground we've been talking about, right? This is the adjustments that you --

MR. DARREN RAINKIE: That's -- that's correct, Mr. -- Mr. Chairman. I mean, it's not -- certainly not an effort to confuse the Board. I think when we use the term "IFRS-related," we're meaning that they're consistent. These changes that we've under Canadian GAAP are consistent with IFRS. We won't have

to unwind them.

You know, everybody in the industry is looking at this as a -- a revolutionary change for accounting if -- if there is a revolutionary change in accounting ever. And, you know -- so we've used the term "IFRS-related" just to, I think, mean that they're not going to have to be unwound under IFRS, they are directionally consistent with IFRS. We just have a further -- a further step to go to achieve full compliance.

MR. RAYMOND LAFOND: I think I understand that last comment, but regardless of IFRS, if it did not exist, you would be moving there and implementing the changes as indicated on page 20 just to satisfy Canadian GAAP?

MR. DARREN RAINKIE: That's correct, and I think Mr. Warden did a good job of outlining that in his -- his direct evidence.

(BRIEF PAUSE)

CONTINUED BY MS. PATTI RAMAGE:

MS. PATTI RAMAGE: Thank you. So I will now move to Mr. Cormie. Mr. Cormie, what is your position at Manitoba Hydro?

MR. DAVID CORMIE: I hold the position of division manager of Power Sales and Operations.

MS. PATTI RAMAGE: And can you please describe your professional qualifications?

MR. DAVID CORMIE: I'm a registered professional engineer in the Province of Manitoba and have a bachelor of science in Civil Engineering. I have been employed at Manitoba Hydro for the last thirty-three (33) years, and for ten (10) of those years I was on the Lake of the Woods Control Board, which has legislative authority to control the flows of the English and Winnipeg Rivers in Ontario.

MS. PATTI RAMAGE: And what are your responsibilities at Manitoba Hydro?

MR. DAVID CORMIE: My responsibilities include directing the management of Manitoba Hydro's energy supply, including the regulation of hydro system of river -- rivers and reservoirs. In addition, I direct the management of Manitoba Hydro's wholesale export marketing and sales activities in both Canada and the United States. And I've had these responsibilities for the last ten (10) years.

I have testified on behalf of Manitoba Hydro at several previous rate and environmental regulatory hearings, the most recent being the 2010

general rate application and risk review hearing.

MS. PATTI RAMAGE: Would you please update the Board on current water conditions as they affect Manitoba Hydro's operations?

MR. DAVID CORMIE: Yes, and if I could ask the -- the Board to turn to page 47 of the handout package that Mr. Warden was going through this morning. And that -- that'll be the -- the bright blue chart on page 47.

I would describe current water conditions in the Manitoba Hydro system as favourable at this time. The overall supply for this year compared to average is slightly above average, as indicated by the red bar on the extreme right-hand side of that chart. That chart illustrates the history of the water supply in the Manitoba Hydro system, going back to 1912.

The chart indicates that the water supply is highly variable. It has lows as -- as little as 50 percent of average, as shown in -- around the year 1940, and as high as 160 percent of average, as occurred in 2005.

Of note, and as Mr. Warden indicated earlier this morning, over the last nine (9) years Manitoba Hydro has experienced average or better than

average flow conditions. We haven't had unfavourable water conditions. And as can be seen from this chart that's quite an unusual condition when you look back a hundred (100) years.

For the last two (2) months, precipitation across our watersheds has been just above average. And as a result, inflows into the reservoir system are currently above average. And if you turn to page 48, this is a chart that we would refer to as a spaghetti chart because it shows the history of river flows back for the last thirty-five (35) years. And we've expressed the flows in terms of energy, because the flow of water in the river is like the flow of energy to our generating stations.

The -- the dark -- or, the black line in the middle of that, what I call a mess of spaghetti, is the average of all of those thirty-five (35) years. The red line indicates the water supply conditions on a daily basis for this current year. And if you look at the right-hand side of the chart, you can see that for the last few months that red line is just above the average of -- of the last thirty-five (35) years.

And so this indicates how much water is flowing into the reservoir system of Manitoba Hydro. So it's like the flow of gas in a pipeline; the flow of

the waters in the rivers is our fuel supply.

MR. RAYMOND LAFOND: so it would include the flow in every station down the -- the Winnipeg River, the Nelson River, et cetera?

MR. DAVID CORMIE: Yes, it -- it's as if all the flows that are arriving are arriving at the downstream point in time. So there are no storage effects shown in this graph. So it's just the supply of water.

You'll note at the -- at -- at the -- at about April of this year, the red line was coming out of the winter below average. And normally around the middle of March and going into April there's a sudden rise in inflow. And that's the result of the snowmelt runoff. You'll see that this year there was a small bump, but nothing really happened until our -- late in April. And then by that time, the snowmelt runoff was complete.

And the first rise in water supply in May was a result of -- of a large rain storm. And then conditions deteriorated through June, and it wasn't until the middle of June that inflows into the reservoir system bumped above average. And -- and they reached a peak at the end of June, and they've been declining -- they declined through the fall. And -- and

around the early October, they again jumped up above average and have been above average for the last few months.

So from -- with regard to how much water is coming down the -- in the system, we have favourable inflow conditions as of today.

Turning to page 49, the water that flows in our rivers generally flows into reservoirs and -- where it can be held in storage for release at another date. And this chart indicates the storage position for the eighteen (18) major reservoirs across Western Canada that are used to regulate the river flows. Of that eighteen (18), Manitoba Hydro controls several of them, but we don't control all of them.

But the water that's in storage upstream in Saskatchewan and Alberta and in Ontario does have potential to generate water in Manito -- or, electricity in Manitoba when it's released. And so this aggregated picture tells us the status of water storages across Western Canada that affect us.

The orange band indicates the range of energy in storage since 1977, the black line in the centre is the average condition, and the red line indicates where we are this year. And as of early December, we're above average, about 3 terawatt hours

or 3 million megawatt hours above average. And we expect to be above average for the remainder of the winter, going into next spring in a -- in a favourable storage position.

(BRIEF PAUSE)

MR. DAVID CORMIE: And lastly, on page 50, there's a chart showing for the last -- since Limestone came into service in 1992, hydraulic generation -- the red bar on the extreme right hand indicates the hydraulic generation that we expect for fiscal year 2012/'13, about 33 terawatt hours. And consistent with the water conditions for the last nine (9) years, this 33 terawatt hours continues our -- our favourable hydraulic generation situation. The last year that we were below average was in 2003/2004.

In -- one (1) change that's occurred in the -- in the current year is the -- the red bar includes the expected generation from Wuskwatim as it came into service this fall. So the -- the previous years were -- were the current system as of Jan -- as of 1992, when Limestone came in. So there's a slight change in the basis of reportings this year, because it now includes Wuskwatim.

CONTINUED BY MS. PATTI RAMAGE:

MS. PATTI RAMAGE: Mr. Cormie, would you please update the Board on recent natural gas and electricity prices in the export markets?

THE CHAIRPERSON: I wonder if we couldn't intervene now with respect to this issue of water supply/water generation. I have some questions. And -- and I guess it relates to talking about the -- your water forecasting skills generally, Manitoba Hydro, because, you know, embodied in this Rate Applications are some projections around what your generation is going to be like for the next -- for the current year and the next year.

How good are they? Like, I mean, how good are -- how good are you, being honest here? I mean, are we talking of a significant range of possibilities? Are we talking a fairly narrow range? Are we -- how much could it swing?

MR. DAVID CORMIE: The -- Manitoba -- Manitoba Hydro has a good skill in forecasting what's going to happen tomorrow. We -- we have a good idea what will happen in the next few months, because we know how much water is in reservoir storage and -- and we know how much precipitation has fallen in the last few weeks.

Once you get out past a month or two (2), it's essentially a function of the rainfall and we do not have any skill in predicting long-term rainfall and water supply conditions. And -- and that's -- no one has those skills of predicting a fut -- the future weather conditions.

For the -- for the Rate Application, in the current year we reflect the current amount of water that's in the reservoir storage, the amount of water that's flowing in the rivers, and we make the assumption that rainfall for the balance of the current year will be normal. And so it's -- it's kind of a current condition, assuming that there will be normal rainfall.

For the second year of the application we assume it will be the median. So it will be the middle -- middle amount, or the -- the amount that you can expect to be exceeded 50 percent of the time. So 50 percent of the time we would anticipate hydraulic generation would be higher than -- or, inflows to the reservoir will be higher than what we -- what you would do norm -- what you would expect based on the long-term and 50 percent time it would be less. So it's not a prediction; it's an assumption of what the water flow conditions are going to be.

And then for the third year and on in the IFF it's based upon the assumption that each of the historic -- hundred historic river flow conditions could occur in each of the forecast years. So in 2014/'15 we have a hundred years of record; we give each year 1 percent weight. And so we calculate the financial impacts a hundred times and we average those out. And what's show in the IFF is then the average revenues and the average costs associated with the average of all the flow conditions.

And so, for the last eighteen (18) years of the forecast it's based on the -- each of the historic one -- each is -- each of the historic river flows having equal probability of occurring.

So with regard to forecasting and forecasting skill, in the -- in the near term we -- we have some skill; in the -- in the longer term we -- we're not presenting a forecast. We're presenting revenue forecasts around an assumption of what the river flows are going to be. I -- I can't tell you what river -- river flows will be next year because I can't forecast what the weather will be next year.

THE CHAIRPERSON: So looking at that graph, say, for example, that the -- you know, the -- we have 10 percent -- can -- can -- you use 10 percent

less water next year; what is the mean to our financial forecast?

Like, I'm trying to get a sense of -- of what -- what might result if you don't have the kind of flows that you'd expect.

MR. DAVID CORMIE: In the -- in the IFF we do the sensitivity around river flows. I think the sens -- the only sensitivity that I'm aware of is -- is a five (5) year draught starting in 2014/'15. And that's the -- that's the only sensitivity in there.

But we haven't -- we don't have a situation where we say, well, if river flows are 10 percent lower than what was in the IFF, what that calculation -- but -- but roughly what it would mean, there would be about 3 million megawatt hours less of hydraulic production. So there would be 3 million megawatt hours less going to the export market, twenty-five dollars ($25) a megawatt hour. And that would be a reduction in export sales.

If -- if you made the next 10 percent, then you may have to start buying replacement power to serve your load obligation. So there's some sost implications as you start reducing the water supply.

And under -- under the dry -- the lowest flow on record, instead of having hydraulic generation

-- or, hydraulic inflows of -- of about 30 million megawatt hours, you only have 15 million megawatt hours. So you've now lost 15 million megawatt hours of hydraulic supply, and you need to replace that. So you've lost the revenue associated with the exports, but now you also have the additional costs associated with having to purchase power and to run natural gas and -- and potentially burn coal.

But we don't have one -- you know, we -- we don't have that specific calculation shown in the IFF.

THE CHAIRPERSON: Just so -- unfortunately here, and I want to ask these questions, so looking at -- looking at what was going on this summer, I mean, you were sort of facing -- we were sort of getting into a drought situation; we were getting worried about water supply. How did Manitoba Hydro respond in terms of its -- addressing its market?

I mean, in terms of not so much the base load, but, you know, looking at exploiting the export market? I just want to understand what your behaviour was, your market behaviour was during that period.

MR. DAVID CORMIE: The operations planning process, Mr. Chairman, involves a weekly review of current conditions and an updating of the

operations plan for the Utility for the next sixteen (16) to twenty-four (24) months.

If a week goes by where there's no -- no additional rainfall it's likely that for the near term the conditions will be dryer and we use statistical methods in order to predict what the short-term supply of -- of water will be.

Dry conditions aren't an indic -- aren't -- don't indicate that, you know, that it will continue to be dry, but dry conditions indicate that it's likely that by the end of the year you will have lower than normal conditions.

So if we have a -- a week of continued dry weather we will then reduce our forecast of water supplies for the year as a whole and we will have to adjust on a weekly basis the amount of surplus that we're making available to the export market.

So as we came out of last winter with near record amounts of snow on the ground. And it was our expectation that with normal rainfall that we would have a below average water year. So each week we would be turning -- dialling down the knob that con -- of how much water we would be indicating is available as surplus and reducing our export market activities accordingly.

So there's a gradual adjustment based on current conditions. And then as you get into the spring and rainfall events occur, suddenly there can be a turnaround in the supply. And now instead of forecasting below average you now -- if -- if you've moved into an above average condition you would now start gradually increasing the amount of supply that's available for surplus sales.

And so it's -- it's just statistically based forecasting with the exception that when we get to the situation where the forecast is so low that there's a potential that there won't be adequate supplies to serve Manitoba customers. At that point we don't do what's expected anymore, we revert to what's required in order to ensure that there's -- if it were -- continued to be dry, in the worst case adequate supply is available to serve Manitoba load.

So there's a -- kind of an expected and, based on economics, what we would like to do. And then you check to see what you can do given that you have a supply obligation to serve Manitobans. And so you -- you may have throttle back in to protect against the worst-case situation.

THE CHAIRPERSON: So looking at -- you know, one (1) of the I'm -- I -- I have on my computer

is looking at MISO prices using one (1) of the websites. And I guess-- there were some periods there where there's some pretty good prices. And I guess despite what you just said, if you see a -- a spike in prices in -- in the MISO market do you open up the floodgates and you sort of, you know, let's go -- let's go get -- despite what you've just said?

MR. DAVID CORMIE: I'd like to say yes. To the extent that we can capture those opportunities we will, and it may be that we have to buy some power at night in order to supply that energy.

But because the majority of Manitoba Hydro's generating stations are well downstream of Lake Winnipeg and the -- and the effective travel time for a release at -- from Lake Winnipeg to reach the lower Nelson generating stations is in the order of three (3) to four (4) weeks, we can't be adjusting the reservoir releases on a moment-by-moment basis to try and capture the market spikes that occur.

So water management is dan -- is done on a long-term basis looking forward based on expected conditions, and loads, and prices, rather than on what's the market price today.

However, we do have a presence in the -- in the power markets on an hourly basis. And to the

extent that we have supplies available that are already in the system, the water is already in the reservoir on the lower Nelson. We will -- we will maximize the op value, we will -- we will go and capture that opportunity to the extent that we can. But we do not regulate the reservoir system to capture the moment-by-moment spikes that occur in the MISO market.

THE CHAIRPERSON: I guess, you know, when -- when export -- export markets were good and prices were high, you're generating lots of cash, it wasn't so much of an issue. But now, you know, export prices have tanked, markets are not good, you know, we really I think ratepayers depend on maximizing your revenue from the export markets such as it is.

Much more critical now because, you know, we -- we will suffer the consequences of Manitoba Hydro's decisions in export markets. And it goes right to the bottom line frankly, you know. It -- it affects your profits, your bottom line pretty -- pretty directly.

And I -- and I guess the question is: You're managing this thing, how do you satisfy yourself that -- that you are -- and I think it equally applies to the senior management of Hydro, how do you satisfy yourself you're managing that market to maximize the

profits?

And, you know, how do you benchmark yourself against others to -- to say, Yeah we're doing a good job but, you know, we -- we are doing the best we can, we're -- you know, we're generating profits that will impact the bottom line?

(BRIEF PAUSE)

MR. DAVID CORMIE: You know, and -- my -- my area has a unique opportunity on behalf of Manitoba Hydro and its customers to focus on revenue generating opportunities. And there's -- it means you can come to work every day and say, How do we make more money. How do we squeeze more out of the -- out of the assets that -- that are there. And -- and I'm happy to say that I -- I believe that -- that we -- that we do that.

And one (1) way we -- we do that is to -- through industry. Kind of what are other people doing in the market. What advantages are they -- they seeing. What opportunities are they seeing.

But Manitoba Hydro is not a trading organization. We're not -- we're not -- we're -- we're just trying to manage our -- maximize the value of the

assets. We're not taking speculative positions in the market.

So there is -- there -- there is the potential for -- for the Utility to do that. But so far our risk appetite has been such that we're -- that we -- we're not entering into transactions that are Enron like, where you could go out and -- and take a lot of risk with potential for great rewards.

Our -- our focus is on maximizing the value that we have from those assets and -- and not entering into things that put the Corporation at risk. It is conservative but that's -- that's the -- the appetite of the Corporation.

What motivates us is the -- is -- is the desire, like almost every hydro utility, to -- to do the best possible job. And we -- we are not motivated by bonuses and we are motivated to -- to do the right thing. And we do -- we do measure all our forward trading activities and sales activities against the market.

So we do mark to market -- we have a PNL that says to the extent that we have taken risk in the forward markets we measure those positions, and measure those profits. And on a quarterly basis we report to an executive on the success of our -- our activities.

With regard to our computer modelling and the tools that we have in place, we are involved in benchmarking activities with other Canadian utilities who have similar act -- similar business activities through the CEATI. So our modelling and the tools that we have are in line with -- with the industry.

We've had external reviews of our -- our -- our modelling -- our computer models, and -- and to the extent that we can improve -- are always improving the models that -- that assist us in our -- in our man -- or market and water management activities.

MR. RAYMOND LAFOND: Maybe a couple of questions here. I am trying to relate Chart number 50, the generation, to the inflows or the water supply on page -- well, I'll start with 47.

When I look at these two (2) pages, I would con -- I would be tempted to conclude that the hydraulic generation in the last few years, and more particularly in '11 and '12, and '12 and '13, should increase rather than decrease.

What am I missing?

MR. DAVID CORMIE: Not all water that's available can be converted to electricity, because the generating stations have a -- a fixed capacity to pass water through the generating stations. For example, on

the Lower Nelson River at the Kettle generating station, you can -- we can generate up to 160,000 cubic feet per second. The flow in the river can go up as high -- I think we've had as high as 230,000 cubic feet per second.

So although the water may be there, it -- it -- it may be more than can be generated. And so water passing through the spillway will be required.

And so the -- how much of the water supply can be converted into the -- into electricity is a function of the design of the -- of the generating station. So in the -- in the design of the generating stations, there's a tradeoff of should I add the next unit, the twelfth unit, or the thirteenth unit. And what percent of the time will it be used, how often will we have flows high enough to capture that.

And so you end up having to trade off the incremental benefit of having additional flow capacity at the generating station versus the ongoing carrying costs of -- of the unit. So those decisions are made at the time this generating station is designed. And so there can be more water supply than -- than -- than the system is capable.

So what you'll see as you look at it as -- across the range of river flows, under very low

flows you'll see very low generation. But as river flows rise up, the generating stations reach their maximum capacity at about the flow that would be exceeded about 30 percent of the time. And then they're -- they're maxed out. So even though there's more water coming because the water supply conditions are better, the water is going through the spillway rather than going through the turbines.

So that's the connection between water supply and hydraulic generation.

MR. RAYMOND LAFOND: If I look at the total hydraulic generation on page 50, why would two hun -- 2005/2006, which had, I presume based on Chart 47, the year with the most inflows, it was able to really increase its capacity compared to the last two (2) years, for instance. So how would it have done that?

MR. DAVID CORMIE: Yes. The other -- the other factor is whether we can reach the export market. So even though we have the water supply and we have the capability to generate, the question is, can we -- can we -- can -- do we have enough surplus transmission capacity to get all the energy to market?

In 2005 and '06, we had very favourable export capacity. And we were able to -- because the

power prices were so high in the United States, our US customers were allowing us to use a portion of their transmission system that we're not allowed to use today. And that resulted in -- in us being able to convert more of the surplus water that we had into surplus sales.

Since that time, they've been in -- had discussions with their lawyers and they're not now allowed to use some of that transmission service and make it available to Manitoba Hydro under similar water supply conditions.

MR. RAYMOND LAFOND: You said "not allowed" or "now allowed"?

MR. DAVID CORMIE: Not allowed.

MR. RAYMOND LAFOND: Thank you.

MR. DAVID CORMIE: We are trying to negotiate use of that transmission service so it's available to us in the future. But as of now, there are restrictions on that.

MR. RAYMOND LAFOND: And you indicated that in terms of your forecasting you would go back a hundred (100) years and, for instance, if it was a hundred (100) years you get 1 percent per year. I would have thought you would have given a bit of a higher rating for the last, for instance, quarter or

half century than the first quarter -- or than the -- for the last quarter and the last half-century versus the first quarter, the -- yes, the first quarter and first half, because simply -- I mean, environment have changed, flows have changed, drainage have changed, diversions, et cetera.

MR. DAVID CORMIE: Yes, Mr. Lafond, that's a -- that's a good question. And to the extent that -- that in 1912 there were different water uses and different diversions in place than today, or there were no diversions and now there are, we have gone back in that historic record and we've assumed that those facilities were in place since 1912. And we've -- what we've -- what we've calculated is a present use flow.

And so from a planning perspective we assumed that the water supply was as in 1912. But if there was a diversion in place now that diversion was -- would be in place in 1912. And so we've adjusted for -- to -- to make sure that it's a -- it's a present-use file.

Over a time we believe that there are some climate change effects in the record. They -- but because our record is quite variable, they're not obvious. But our climate studies people have indicted that they are -- that they are evident in certain parts

of our watershed and -- but they're just not -- they're just not obvious, they're very subtle.

So if you look at the average line on that chart compared to the bars it looks like there's not a trend, but apparently if you look in the right way there is a trend of increasing water supply but it is very subtle.

So the -- the question is how do you -- how do you reflect into the future what those climate change effects are. And Manitoba Hydro is doing those kind of studies. And we have yet to change our basis for planning, but we know that the effects are there and we're -- we're in the process of considering what they will be.

MR. RAYMOND LAFOND: My last question, Mr. Chairman. Can I simply assume that, based on what I've heard, that the total hydraulic generation equals sales, that is to Manitoba consumers and exports?

MR. DAVID CORMIE: No, our sales will be greater than the hydraulic generation because we have access to other low cost -- we have other -- access to other energy supplies besides the hydro. That means buying power at night when it's low priced and selling it in the daytime. And so you can increase the supply by arbitraging low-cost purchases into high-

cost -- high-value sales.

And -- and one of the unique aspects of the Manitoba Hydro system is in the wintertime the discharge capacity from Lake Winnipeg is restricted because of ice and we can't get down the river as much water as we -- we would like to, to meet the demand. And so the Nelson River generating stations don't have enough water to run continuously at -- in the winter when the demand is high.

So what we do is we buy additional energy at night so that we can back the genering -- generators down at night and then run them more in the daytime. And -- and so we can increase the supply by purchasing low-cost energy to sell high-cost energy, so even in a high water year you'll see that there will be purchases as part of our supply.

Our -- we also have the ability to run natural gas turbines and to run Selkirk on natural gas. Unfortunately the efficiencies of those generating stations are -- are quite low and they're -- end up being some of the most expensive generation that can be run in the MISO footprint. So they rarely run for economics.

It's all -- almost always cheaper for us to go to market to buy the energy we need rather than

to -- to start those units. But they're there as emergency backup and for drought support, not -- and we -- and we don't arbitrage them or use them to support our export sales.

MR. RAYMOND LAFOND: What is the capacity of generation for these gas plants and coal plant?

MR. DAVID CORMIE: The station at Selkirk is 130 megawatts. The two (2) combustion turbines at Brandon are 260 megawatts. So we have about 400 megawatts of gas-fired generation. And then the coal-fired unit at Brandon has the capacity for around a hundred megawatts.

Unfortunately -- well, maybe not unfortunately, the -- the legislation in the province restricts the use at Brandon to emergency use only. And -- and so it's only run for training and proficiency runs, and it's not run for -- it's run for emergency use only.

(BRIEF PAUSE)

THE CHAIRPERSON: I think it would be an opportune time to break for lunch. I would suggest that we adjourn now and resume the proceedings at one

o'clock. Mr. Peters...?

MR. BOB PETERS: Yes, before we do recess for lunch I should remind the panel and the parties that I believe we will have presenters today at 1:00 p.m., Mr. Chairman. And I believe two (2) individuals have requested an opportunity to come forward and make a presentation. So I'd just remind the panel of that.

THE CHAIRPERSON: Thank you very much for doing that. So let's adjourn now and resume at one o'clock.

(PANEL RETIRES)

--- Upon recessing at 12:04 p.m.

--- Upon resuming at 1:02 p.m.

THE CHAIRPERSON: Good afternoon. I would like to resume the proceedings. Mr. Peters, do you have some comments?

MR. BOB PETERS: Yes, thank you, Sir. At this time, Mr. Chairman and Board members, ladies and gentlemen, the Board has made time available to hear from presenters who, although not providing evidence, have points of view that they want expressed

to the Board and also other parties.

And the Board has received a total of eight (8) written presentations. And I'll just list them: Ms. Boitson, Mr. Luby, Mr. Biggs, Ms. Fleury, Ms. Pacaud, Mr. Macduff, and Allison Reid are seven (7) of the eight (8) who have provided written presentations via email, I believe, or maybe a letter.

We have asked our transcription services to incorporate them into the transcript of proceedings, and a copy has been circulated to the parties, Mr. Chairman and Board members.

The eighth written presentation that the Board received was from Mr. Stokke, who is also with us today. His -- his letter of -- it appears to be October 17th of 2012 will also be incorporated into the transcript by our transcription services, Ms. Lavigne. And in addition to that, he does want to make an oral presentation today.

So with those notes, I would suggest that the Chairman could call on Mr. Ciekiewicz, and he could provide us with his presentation, being mindful of course of time restrictions that the Board likes to adhere to. So, thank you, Sir.

THE CHAIRPERSON: Mr. Ciekiewicz, welcome.

ORAL & WRITTEN PUBLIC PRESENTATIONS:

MR. ALLAN CIEKIEWICZ: Thank you. Okay, forgot that.

Good afternoon, Board members and to all in attendance. My name is Allan Ciekiewicz. I'm a resident of Springfield Municipality. This presentation is straightforward, consisting of two (2) topics and approximately twenty (20) points, each point followed by a set of braces that inclose my comment.

Topic 1: Can we believe Manitoba Hydro's projections, forecasts, predictions, statements, et cetera?

A. Manitobans were told by former CEO, Mr. Brennan, that Manitobans would not see an increase in their electricity rates due to the drought of 2004. Comment: That was false.

B. If you have Hydro's ho-hum attitude of don't worry be happy because low water flows are always more than balanced out by the average and the higher than average water flows, then all is well. Comment: How is that working out for Manitoba Hydro and the ratepayers? It isn't.

C. A comment during a hearing for interim rate increase stated that Manitoba Hydro

expected the interim -- interim rate increase not because Manitoba Hydro was in dire need, but because it supports a solid financial management strategy. Comment: That is a mind bog -- mind-boggling statement. No deleterious effects existed, but they were still granted an interim rate increase.

D. Manitoba Hydro still operates a coal-fuelled generating station in Brandon. Comment: Does anyone really need a comment on that situation?

E. About two (2) -- no, about five (5) years ago, Manitoba Hydro stated during an earlier hearing that it would take several years of good water conditions to recoup the losses of 2003/'04. Also Manitoba Hydro stated even with an assumption of median water flow conditions and general consumer rate increases each and every year throughout the ten (10) year forecast period, Manitoba Hydro does not recover its pre-drought debt-equity ratio of 80:20 until 2012.

Comment: It was false. It was achieved December 2006. So why didn't our rates go down instead of asking for another rate increase? In other words, that achievement of 80:20 did appear to indicate a reasonable progress towards Manitoba Hydro's financial targets. The debt-equity ratio values are in constant flux, and it appears to fluctuate with the whims of

Manitoba Hydro. Also this indicates the inability of Manitoba Hydro to make accurate forecast projections, predictions, and it is having an negative effect on ratepayers.

A public utilities directive issued, I think, sometime in 2008 requesting that Manitoba Hydro plan, outlining the pros and cons of the various potential inverted-rates strategies. And Board Order 5/12 requested a status update regarding inverted-rates impacts on the all-electric heat con -- customers.

Comment: After approximately five (5) years, Manitoba Hydro indicates they have been studying the Board's request and stated they formed a work -- working group to study this request. Come on, give us a break. An equitable solution is not that difficult to develop.

Next, rate of inflation. Over the years we have been told many times that Manitoba Hydro will keep rate increases below the rate of inflation. Comment: How's that working out for the ratepayer? Not very well, especially if a rate increase was unnecessary.

Next: In Manitoba Hydro's January 26, 2007, request for an interim rate increase effective February the 1st, 2007, it was stated that the increase

was required at the earliest possible date as a form of immediate rate relief.

Comment: Unfortunately the facts regarding water flows that initiated this unnecessary rate relief were inaccurate and contradictive, such as the water flows of 2006/'07 were extremely poor for most of the year.

Also, you would think that when a gas -- when the gas sector of Manitoba Hydro suffers a net loss for a major part of the year, which is addressed by the overall revenues, electric sector of the Corporation, why is it when the electric sector demands rate relief in the form of an immediate interim rate increase, that the overall revenues of the Corporation are not used to address a momentary financial shortfall until an actual general rate application is completed?

Based on other requests for interim rate increases, it becomes obvious that all rate increases, if necessary and based on accurate and complete facts, must be granted after an actual general rate application hearing is completed.

Now, I just have to sort of step -- step aside from what I've got here. I sort of got a little put off yesterday when I read the paper about -- it says it's a -- "Hydro lays out case for new rate hike."

So that's an electrical rate hike for the electric side, not the gas side. But Mr. Thomson, or whoever it was -- maybe the Free Press got this from Mr. Thomson -- he says they've suffered -- in the fir -- first six (6) months they've suffered a $43 million setback net loss, but they don't mention 25 million of that was for the gas sector, which has nothing to do with this hearing.

So -- and this happens frequently. You can read their quarterly reports all the time. I know they -- they split it up into electrical and to gas sectors, and he was talking con -- consolidated. But this isn't a consolidated hearing; it's for the electric side and that's it. Okay.

Next: Manitoba Hydro constant -- constantly states they need rate increases in order to make reasonable progress towards the attainment of a financial target -- or, targets. Comment: Apparently this progress is determined by the state of the retained earnings and the debt-equity ratio. The only problem is the fact that the targets keep changing. Approximately a year ago Manitoba Hydro introduced the phrases, a decade of investment to be followed by a decade of return and verified by Manitoba Hydro's forecast projections and predictions.

Unfortunately, and based on the main title of the October 12th, 2012, edition of Energy Matters, it states:

> "Infrastructure rebuild over next twenty (20) years, key to maintaining high reliability and low rates."

So there is no decade of investment. It's a double decade of investment. And of course there has to be that ubiquitous phrase, "key to maintaining reliability and low rates."

Next, Mr. Thomson, CEO and president, reminded us in the August 2012, Volume XII, Number 8 edition of the Energy Matters, of Manitoba Hydro's current application for a rate increase. He -- he also reminded us that even with the applied-for rate increase, the Manitoba consumer will continue to enjoy electricity rates that are among the lowest in North America.

Comment: And I don't see this -- I'm not being -- try to be factious here or anything. I'm -- I'm serious. The comment is: Sorry, but I'm oh-so-tired of being reminded at the commencement of and during a general rate application and during public announcements related to Hydro matters that Manitoba consumers enjoy low rates when compared to other

jurisdictions.

The sad fact of that statistic is that it appears that Manitoba Hydro is using the low rates statistic as justification for a rate increase, just so long as they keep rates low. Maybe Manitoba Hydro, if they insist on continually mentioning the low-rate statistic, should concentrate on making them even lower.

I believe that the Affordable Utility Rate Accountability Act could very well prove not to be in the best interest of Hydro electric sector ratepayers.

Next: Manitoba Hydro has stated that Hydro has not taken any steps, other than retained earnings to protect itself from risks associated with droughts.

Comment: Droughts coupled with firm export contracts that do not contain clauses that exempt Manitoba Hydro without penalty from supplying export energy if Manitoba Hydro cannot meet its own domestic requirement from its own generating stations pose an unacceptable and probably the greatest risk -- risk to Manitoba Hydro.

Manitoba Hydro expects droughts every approximate ten (10) years. And if the next drought is

of a magnitude that has never before -- before been witnessed, it will represent a risk not only to Manitoba Hydro but to Manitoba.

Section 47, Part 1 of the Public Utilities Board Act gives the Board the authority to direct Manitoba Hydro within their orders to include such an exemption clause in their firm export contracts.

Next: Manitoba Hydro makes the public aware of the positives of Manitoba Hydro Place, such as special recognition awards for a building that costs close to a third of a billion dollars to construct.

Comment: I would think that a building that was supposed to be cost neutral -- that's what I was told a while back -- because of opportunities for extra revenue would also make available to the public, actually prove to the public, that Hydro Place is cost neutral by listing publically in their Energy Matters pamphlet the actual sources of revenue in order to justify the building as cost neutral, in order to pay for the annual cost of approximately nineteen (19) twenty (2) -- nineteen (19) to $20 million to repay the construction costs.

The list could include the number of tenants, if all the extra space in Hydro Place has been

leased, the total revenue from the tenants, the number of EFTs compared to the amount that Manitoba Hydro has budgeted for. I still believe that rates are the prime source of that revenue for payment, although it would be nice or would be appreciated if Manitoba Hydro could prove otherwise.

Next: In Manitoba Hydro's current GRE, in one of the documents there is a comparison of the actual and forecasted export revenues for 2000/2001 to 2011/2012, those twelve (12) years.

Comment: Of the twelve (12) comparisons, eight (8) of them, 67.7 percent, were higher than the forecast by a total of close to 1/2 billion dollars. So much for forecast predictions and projections. More importantly, how is that unexpected increase in revenue addressed? It is difficult to know, because after 2003, the rates kept going up, up, and up. I would think that any ordinarily prudent and cautious person would have expected rate decreases or much smaller rate increases.

Next: Regarding Manitoba Hydro's Power Smart Program, it is stated in Tab 7, Volume I, that overall 2010/'11 was a successful year for Manitoba Hydro's Power Smart porfo -- portfolio. Total Power Smart expenditures in 2010/'11 were 45 million,

consisting of 29 million from Power Smart Electric, eleven (11) from Power Smart Natural, 4 million from affordable energy fund, and 1 million from the furnace replacement fund.

For the expenditures for the power of natural gas through affordable energy and the furnace replacement budgets, it would be interesting to know how much of each of those program expenditures has as its source monies from the electric side of the Corporation. Also, how much of the -- any money for the various Power Smart expenditure is actually recouped from taxpayers -- I'm sorry, from ratepayers who participate in various smart -- Power Smart programs?

Oh, next: Manitoba states in Tab 10-1, rate objectives, that whenever possible, rates should be designed with the view to sending the appropriate price signal regarding the use, which would be the most sensitive to such a signal.

Comment: It would help if Manitoba Hydro indicated in that statement to whom it applies. Note -- I'm finished with the comment stuff and the separate little facts.

Note: The reason that I included parts A through 'O' in this presentation is to indicate that

Manitoba Hydro's statements have not been all that accurate or transparent and tend to be misleading the public at large. Therefore, the answer to that very first question on page 1 -- therefore the answer to the top of 1 on page 1 is "No."

Before concluding -- I got a couple other pages. Before concluding I'd like to refer to a couple of quotes. Some -- some time ago when I was reviewing Manitoba Hydro's comments relating to varying Board Order 99/11, I came across, and still remember, the following Manitoba Hydro quote, short quote:

> "The PUB has made statements that, in Manitoba Hydro's view, are non-constructive and not in the public interest."

My comment to that is: Actually, if you apply that quote to parts A through 'O' above Manitoba Hydro may just be guilty of that which it accused the Public Utilities Board.

The other quote, this is an old one. "The fact is" -- and I'm just going to read the quote:

> "The fact is that they [Hydro] were totally ill prepared. They approached the situation with considerable arrogance and felt that

anybody who questioned them, in effect, was questioning God. Somehow they were touched with infallibility in terms of decisions. Who had the tenarity (sic) to question them?"

That comment was made by Hugh Tentalef (phonetic) during a December 2nd, 1986, interview referring to his involvement with Manitoba Hydro's 1968 licence application for the Churchill River Diversion South Indian Lake. It is oh -- so -- it is oh-so-unfortunate that after forty-four (44) years, the two (2) quotes above seem to have eerie similarity.

Moving on. Manitoba Hydro's mission states it is:

"To provide for the continuance of a supply of energy to meet the needs of the province and to promote economy, efficiency in the development, generation, transmission, distribution, supply, and end use of energy."

In the October 2012, Volume XII, Number 10 edition of Energy Matters pamphlet, it indicates the electricity used in Manitoba is -- in question marks -- projected to grow by 1.6 percent annually. And it also

states that to meet that demand Manitoba Hydro is proposing a development plan that continues a path of predominately hydro generation with enhanced access to export markets.

My understanding of Manitoba Hydro's mission is to meet the needs of the province. But it is clear from the Energy Matters pamphlet that that may not be the case. It is time to stop all the hoopla about exports and the needs of Americans and make sure that the province will have a secure supply of energy for Manitobans first and foremost, especially in times of threat to the energy needs of Manitoba.

Topic 2: Conclusions, recommendations, undertakings, and others. I wrote these -- these conclusions a little differently than I've done in the past.

So, A) Conclusion, Recommendation, Undertaking. The ratepayers are always told that export profits contr -- excuse me -- contribute to decreasing our rates; we are not told by how much. So let's say someone with a magic finger and a magic switch switches off all export profits.

So undertaking 1: After all the export profits are switched off, how much would the residential ratepayer be charged per kilowatt hour?

Undertaking 2: After all the export profits are switched off and taken into consider -- consideration that labour costs would be lower because less staff would be needed, some Manitoba Hydro departments/divisions would become obsolete, there would be a decrease in transportation and transmission, et cetera, how much would the residential payer -- ratepayer be charged per kilowatt hour?

Undertaking 3: After all the export profits are switched and taken into consideration in addition to undertaking 1 and 2, that some cancellations of generation construction would occur, Bipole 3 probably would not be needed. And when the combined savings of undertakings 1, 2, and 3 are determined, now how much would the residential ratepayer be charged per kilowatt hour?

Undertaking 4: Calculate the total savings from the first three (3) undertakings, and maybe other savings, which should be billions of dollars; now determine the cost of installing one (1) hyper-efficient gas turbine. Also, determine the most strategic areas of Manitoba to install hyper-efficient gas turbines. In my opinion the cost of such a hyper-efficient gas turbine program would be a fraction of the savings determined in undertakings 1, 2, and 3.

This program, and depending on many hyper-efficient gas turbines install -- installed, coupled with Manitoba Hydro's existing hydraulic generating stations should protect Manitoba's energy needs now and well into the future. But that will depend on how many hyper-efficient gas turbines are installed, installations that will take a fraction of the time to install when compared to an hydraulic system construction.

After this undertaking is complete, how much would the residential ratepayer be charged per kilowatt hour? And if by chance this program yields surplus energy, then it can be exported, but not on the condition that new hydraulic generating stations and transmis -- transmission lines must be constructed to meet any export opportunity.

It would be appreciated if the Board includes in its order that such undertakings take place, preferably -- preferably by an independent body, and reserve its findings regarding the current Rate Application until such undertakings are complete.

Recommendation B: It is my recommendation to the Board regarding interim rate approvals that regarding the 1 percent interim rate that was continued to be billed to cons -- customers

and held in a deferral account should be -- should be refunded to the ratepayers; 2) the interim rate increase granted effective April 2010 should be reduced by 1 percent; 3) the interim rate increase granted effective September 2nd, 2012, should be reduced by 1 percent. Considering 1, 2, and 3 that I just mentioned, this should bring the rate increase for parts of 2012 and 2013 closer to the rate of inflation.

In general, I make the following recommendations for the Board's consideration and based on some comments within my presentation that there should not be any interim rate increases granted at any time unless Manitoba Hydro is in dire straits and deleterious effects actually exist. All rate increases and/or decreases should only follow the completion of a general rate application.

Recommendation C: The request of -- for the approval of this five (5) -- 3.5 percent rate increase effective April 1st, 2013, and coupled with the fact that Manitoba Hydro has already been granted -- while it may have been not on a permanent basis; it's still interim -- two (2) substantial rate increases in the first five (5) months for the fiscal year 2012/'13, the requested expected 3.5 percent increase effective April 1st, 2013, should be reduced to a percentage that

represents one-half (1/2) the rate of inflation at the time the rate increase becomes effective. That is, if a rate increase is actually necessary.

Also the excessive 3.5 percent rate increase request appears to be a ploy -- I'm sorry to say this but I'm saying it -- appears to be a ploy on Manitoba Hydro's part to even the score for man -- for the Board's decision to decrease an earlier requested rate increase by Manitoba Hydro.

Request -- I'm sorry, recommendation -- recommendation D: It would be appreciated if the Board gave consideration to the importance of applying Section 47(1) of the Public Utilities Board Act regarding Manitoba Hydro's firm export contracts, and the potential losses to Manitoba Hydro before the next drought or any other significant negative situations appear. That would be the inclusion of exempt clauses within firm contracts, as mentioned earlier in this presentation and earlier presentations.

E. This is -- this is kind of a recommendation, and you'll have to interpret how you see fit. Manitoba Hydro, in its application to vary Board Order 99/11 stated:

> "On the basis of the legislation as it stands, the Board has no

jurisdiction to approve, reject, or vary Manitoba Hydro's major capital projects such as construct -- construction of new generating power stations or transmission lines."

A comment: From what I remember, that is probably correct. However, I do not recall any legislation that compels the Public Utilities Board to approve any rate application, whether it's for a rate increase or a rate decrease, submitted by Manitoba Hydro to the Manitoba Public Utilities Board.

I've got a series of question marks there. At the back of page 2, at the back of -- back of page 4, and the back -- you -- you're right at page 6 now. At the back of page 6 there's -- it's a similar statement three (3) times. So I would like to read the statement, and -- and I call it the existing program. As -- as a ratepayer, I see this as the existing program.

"We build up retained earnings. We improve the debt equity ratio. We construct hydraulic stations too early; concen -- concentrate on exports that can have a tremendous negative impact on Hydro's finances;

wait for adverse condition -- conditions, such as a super; address the severe condition after it occurs with imports; allow the retained earnings to drop, adversely effecting the debt-equity ratio; increase the rate to ratepayers; and start all over again."

And what's the point in such a vicious -- vicious circle? Makes no sense at all. And the last little phrase there, "It's time to change."

Members of the Board, thank you for your patience.

THE CHAIRPERSON: Thank you, Mr. Ciekiewicz.

Do the Board members have any questions that they'd like to address to . . .

I don't have any questions either. Does Manitoba Hydro wish to respond to the comments?

MR. VINCE WARDEN: We just would like to thank you for your comments. We don't, obviously, agree with all of your thoughts, but we still appreciate hearing them. And -- and we will certainly take them into consideration. Thank you.

MR. ALLAN CIEKIEWICZ: Okay. Thank

you. I appreciate that.

THE CHAIRPERSON: So thank you very much, Mr. Ciekiewicz --

MR. ALLAN CIEKIEWICZ: You're welcome.

THE CHAIRPERSON: -- for taking the time to come to meet with us and also taking the time to prepare your extensive report. Appreciated. We'll certainly appreciate hearing from citizens about the applications that are before us. So we'll certainly consider it as part of the other evidence that we -- that we have been provided with. Thank you very much.

MR. ALLAN CIEKIEWICZ: You're welcome. Thank you.

THE CHAIRPERSON: I now call on Mr. Stokke to provide his comments. Mr. Stokke, please. Welcome.

PRESENTATION BY MR. PER STOKKE:

MR. PER STOKKE: Good afternoon, members of the Board, Hydro family. I still consider myself a Hydro guy, although it has been seven (7) years now -- more than that, actually -- since I retired. And this actually feels a little bit strange. Unnatural even, I must say. But Hollis Singh phoned me and asked if I was interested in -- in talking to the -

- the letter that I dropped off here some time ago, and I thought that I couldn't very well say no to that. So here I am.

The -- it is a public letter, and it was addressed to Manitoba Hydro's ratepayers and owners. And the subject is Manitoba Hydro's decision to replace the spillway at that Pointe du Bois. And the issue is whether Manitoba Hydro had credible and defensible evidence for making this decision.

Now, you'll hear and you see in the re - - in my letter that I use the expression "credible and defensible evidence" quite a bit. It's dam safety speak, and it means that any evidence that doesn't pass the -- the test of being credible and defensible by the dam safety field is not valid. I sometimes refer to it as "hard evidence" for -- for short.

Now, I shall go through the letter, that's the intention, but dam safety is a -- is such a vast field, and you can only put so much into a couple of pages. So I would like to expand a little bit on it and -- and elaborate and maybe provide some background other than what is in the letter if -- if I have the time to do that.

(BRIEF PAUSE)

MR. PER STOKKE: There's also a new factor here now since I've submitted that -- that letter, and that is that Manitoba Hydro has submitted a letter they sent to me in April this year as an official document on dam safety. I won't talk to the details of that one. I pointed out in my response to that letter that you have a copy of as well that -- I feel very uncomfortable doing that, because it is an integrity report and as such, no doubt, a fine one. What do I know? But I do know that it is not a credible dam safety report.

At the end of -- after I gone through the -- the letter, I'd like to make some words relative to the question: What now? If times allow. Maybe my meter has run out by then.

Let us observe right here and now, and take heed, that this is only about Manitoba Hydro's decision to replace the spillway at Pointe du Bois. And all the matters, of course, that is directly related to that.

And it is a formidable task, and undertaking, to back up such a decision for Manitoba Hydro because it is, generally speaking, a way larger and much more complex task to determine that a replacement is necessary than to find that it isn't.

I've been at this now for more than two (2) years and what I've been after is to find if there exists credible and defensible evidence that can underpin Manitoba Hydro's decision and claim that the spillway at Pointe doesn't meet the Canadian Dam Safety Guidelines with respect to required capacity and that it therefore must be replaced. I call this search as my "quest" for easy reference, and you'll find that word used in Manitoba Hydro's report as well.

The onus is on Manitoba Hydro to provide and demonstrate that it is true, that this is true that it has to be replaced. It's not up to me to prove that it isn't necessary, it's not up to me or anybody else to -- to do that.

I start -- I started my quest in, of course, Power Supply of Manitoba Hydro, but Power Supplies blankly refused to review anything about this decision. It was a done deal as far as they were concerned and they were proceeding presently with the project at their pace.

Then I turned to Bob Brennan and he was interested. And I got access to all relevant reports and documents through his assistant Shirley Denesiuk. But Bob, unfortunately, was in the mode of retiring so the -- you know, the quest went oh, ever so slowly.

And -- but just the same, questions were posed and forwarded to power supply, very tame ones initially. And they responded to those.

Then we sharpened the questions up so they had a little bit more bite to them and then Power Supply flatly refused. Then Bob Brennan retired and I thought maybe the -- the search for evidence was halting there, but by-and-by I got this letter that I referred to from Shirley Den -- Denesiuk. And -- and, you know, it had a note at the end of it that they -- Hydro now considered this matter as -- as closed.

I -- I still didn't give up. I sent a letter to the President and it got refused, he didn't want to meet with me. And then I sent to the Chair. And although we had a trip up to Pointe du Bois, I'm not sure why because there was no agenda and we didn't do anything but look at the thing. But anyways, after that he sent me a letter and said that the matter was closed.

And indeed the quest is now over, not just because Manitoba Hydro closed the door on me but because this letter that Shirley sent to me, which is now Manitoba Hydro's official document, makes it very, very clear that they don't have high-level studies to back up this decision. It would have been mentioned in

that report, I'm sure, if they had it. So I conclude that they -- they don't have it.

And in -- in that sense it confirmed what were my worst fears, and that is that Hydro doesn't have credible and defensible evidence to back up their decision.

And the reason for that is that they didn't undertake to do high-level studies which could have provided that evidence. And they should have done that not because I say so but because the Canadian Dam Safety Guidelines say that high-level studies should be made if you're making a high-level decision. And I would say $400 million is -- is an important decision that deserves high-level evidence.

Now you will see in -- in their report that there has been an unholy mixup of miscommunication and misunderstandings all along this quest here. And there has been an equally unholy mixing in of impertinent issues and material that has nothing to do -- it doesn't bear at all on the decision to replace the spillway at Pointe du Bois.

A point -- or a case in point, there is something called the east re -- retaining wall for the power intake channels, sometimes called the "east gravity wall." That one has bad concrete in it, and

there is no doubt that that one has to be remedied for operational reason.

Now a world-renowned engineering consultants and contractor in 2002 suggested that that wall be backed up, buttressed, that is, by roller-compacted concrete. And he suggested it at the price of about 4 to $6 million. That was in 2002. You know, at least double that now but still that's pittance, you know, compared to 400 million.

And that would make -- that would be -- replace that -- that wall. Gold-standard replacement. It will take any probable flood that would possibly come down that river. It could -- water could pour over it. It's roller-compacted concrete. It's solid. It can take overflow. So, you know, that is -- it's a moot point in the context of dam safety to mention even that one. In that context, dam safety, because that is a prime reason that Manitoba has said they have for replacing that spillway.

Now, you know, the -- the way I kind of perceived it at the time was that this invasion of irrelevant issues was maybe one of the reasons that we didn't make much headway on the -- on the quest. We didn't really get off base. But we also got to remember that Power Supply was very much against any

review of their decision all along.

Now, I'll be the first one to say that dam safety is a serious business. There's no option to take that one lightly. And, therefore, I'm very glad to see that Manitoba Hydro is sticking to their policy of following the dam safety -- the Canadian Dam Safety Guidelines.

Now, dam safety at Pointe Du Bois is about what risk to life does that dam pose to the public downstream of the dam during periods of high flow or flood. The public affect -- possibly affected by a dam breach at Pointe du Bois are in dwellings about in the 2-kilometre stretch downstream of Pointe du Bois.

There are about a dozen dwellings affected, possibly two (2) if you include those who are minimally affected, some of them maybe an inch or two (2) of flooding. Hardly a dam safety concern. And as I understand it, those dwellings are, for the most part, uniseasonal, and occupied or used by Manitoba Hydro staff employed at Pointe du Bois.

Not that that necessarily is much of a point, but it -- it strikes me as -- as something we should remember, because, you know, the dam safety guidelines is about many things, but common sense is --

is one (1) of the fundamentals in -- in the dam safety guidelines.

And, that -- you know, I should mention here that there are generally two (2) types of dam failures. And that is a sunny day dam failure that can happen any time and without any warning. And it can happen for any reason whatsoever other than flood. That's because flood-induced failure is the other type. And that only happens if you get a flood that is larger than what the spillway can handle.

The failure mode there is -- is usually that, you know, since the spillway can't handle the flood, the water level will rise and the dam gets overtop, and start to erode and eventually fail. Especially earth-filled dams are very susceptible and vulnerable to that kind of failure.

Now, Pointe du Bois has a rock-filled dam, and it's pretty robust. It won't fail just because it gets a little bit of overtopping. And it can be -- be made as robust as you want for a few hundred thousand dollars, say a million, that it can take just about any amount of overtopping cost by a probable flood coming down there.

Now, the other thing about a flood-induced failure is that it comes with plenty of

warning, plenty of warning. Especially on the Winnipeg River at that point. It's a large river, well regulated, and it rises only so slowly, days and days it takes. You can be alert to it and aware of it.

Now, it's -- ironically, when you look into Manitoba Hydro's report, the one (1) that they have now tabled as their dam safety report, they got this backwards. They claim that the sunny-day failure comes with plenty of advance warning and with the ability to warn all affected residents, et cetera. They also state that the sunny-day failure at Pointe is not a problem. It's not a risk to lives. The estimated loss of life is zero. I kid you not. That's what it says in there. You can read it on page 14 and 15 of the report. The --

THE CHAIRPERSON: Mr. Stokke, have you got an idea of how long you need to go?

MR. PER STOKKE: Oh, I see. I am just about going into the -- into my letter here now. And I've addressed many of the points in the letters already, so it -- it won't take that long to go through the -- through the letter.

So I shall -- you know, there's a -- a difference how you deal with the -- with the hazard of the two (2) types of -- of dam failure.

Now, okay, to the public letter then. As I say in the first paragraph here:

> "The evidence put forward by the corp -- Corporation in support of the decision strikes me as sorely inadequate and inappropriate."

And I go on to say that:

> "It is a big decision and that the detail of accuracy of the evidence supporting the decision should be proportionately high."

This -- this is straight from the guidelines. The guidelines say that. I have been through these -- the next paragraph here. I -- I should say here I'm not a dam safety expert. I think everybody knows that. But I -- I think I know enough about the subject to know this when red flags go up. And I have seen them go up just about everywhere I care to look in this case.

What struck me first that something was wrong was that I couldn't find a -- a document that detailed the decision-making process in Hydro. A document that sets down the essentials and the -- the line of reasoning from data to conclusions.

The guidelines call for such a document.

And they also call for it to be open and transparent, because we are, after all, dealing with public safety here. And so the public has a right to know, but it is missing.

Now, the guidelines is, of course, about dam safety, but it also speaks to -- to many other things like balances and tradeoffs between conflicting objectives, commensurations, and so on. And specifically it warns against creating an imbalance between costs incurred and the risk reduction obtained.

Now, at point we don't know what the risk to life is. Manitoba Hydro has never addressed that. We don't know even if the total risk to life is less or more with this replacement project, because we don't know what the risk to life is during the construction period.

A big project like that has significant risk to life and then there will be residual risk after they have replaced the spillway as well. And -- and those two (2) things have to be balanced against what the risk is now in order to make a rational decision. Manitoba Hydro hasn't done that.

To get off the base, you know, regarding that, it is necessary to turn to the guideline's two (2) primary questions, which is, what can go wrong and

what is the probability of it going wrong?

And I say that the first phase of that was addressed by a local consultant who studied the dam breach in 1995. I don't think there has been any dam breach studies since. And the guideline says that as a first approximation you may use, you know, the most simple methods and most conservative assumptions. And I found that this study certainly fit the characteristics of -- of being just that, a first approximation.

The second guideline primary question, what is the probability of this happening, I don't think has been addressed at all by Manitoba Hydro.

Now, if you clear those two (2) questions, you may not have to go any further. You might find that the site is okay, the dam is okay. But if it isn't, if it is non -- if it isn't conclusive then you go into, you know, the third guidelines question, which is, if it does happen, if you get a flood -- flood-induced dam failure, what are the consequences. And this was studied by three (3) consultants in 2001 and 2002, and I don't think it has been addressed since for the existing dam.

And the reports didn't reveal much details but they had every sign, as I saw it at least,

of being a first approximation type of studies. And that was perfectly okay at that time for the purposes because they came up and said that the thousand (1,000) year flood would be, you know, the right one. Two (2) of them said that.

The third one had a preliminary report -- repeatedly warned that it was a preliminary report, and they came up with slightly larger figures. But the other two (2) consultants reviewed that and -- and said that, No, they were unnecessarily conservative, and therefore they -- they stuck with the thousand (1,000) year flood. Now Pointe du Bois can handle that with just a very modest surplus on the forebay.

So now you might have to go into a third phase as I call it here if they -- if they still inconclusive that the dam is safe enough. And that is to find, you know, the -- the most suitable and economical remedies to make it -- to make it safe. Because the paramount guideline question respecting existing dams, as opposed to new dams is: Is the dam safe enough. And it doesn't have to met regulations so-called that you would have for a new dam say. It is -- you have to pass the criteria, Is it safe enough.

And to figure that out you have to turn to the second approach that the guidelines have to dam

safety, and that is the risk-based approach. Manitoba Hydro has used the standards approach only, to date. I'm not aware of them having even looked at the risk-based approach.

Now I -- I'm not -- this is not a critique of what I call the "working floor" at Manitoba Hydro. Because the way Manitoba Hydro is organized and the way it functions, it is the duty and the privilege of upper management to decide on -- to what level to take the evidence for it to be credible and defensible for a decision of this magnitude.

I -- the last thing I have in here is, you know, some -- something about the site. I -- I find it kind of amusing to see that, you know, they built this one a hundred (100) years ago for a little bit over $3 million which amounts to about 60 million in today's money. And now they suggest to replace just the spillway for 400 million.

I mean, you know, it -- it's an amusing bit of information and it -- it rests, I think, to a large extent on the fact that in those days they worked -- the engineering worked with nature. Today there's a tendency to want to conquer nature. Way more expensive. But then of course we have lots more money now.

The last paragraph here is just an appeal for people to take action if they are motivated enough and curious enough to get to the bottom of this. Personally I -- I find it so incredible that I -- I'm not just puzzled by it but I -- I find it fascinating.

(WRITTEN PRESENTATION)

Attn: Who It May Concern

Public letter to the Ratepayers and the Owners of Manitoba Hydro

As a retired Manitoba Hydro engineer previously involved in the planning of Pointe du Bois, I feel it is my responsibility to let you know I am troubled by Manitoba Hydro's decision to replace the spillway at Pointe. The evidence put forward by the Corporation in support of the decision strikes me as sorely inadequate, and inappropriate.

This is a big decision: $400 million (base cost only?), creating no direct or indirect revenue. The level of detail and accuracy of the evidence supporting it should, therefore, be proportionately high. While this is common sense, it is also what the Canadian Dam Association's Dam Safety

Guidelines state, the very same Guidelines Manitoba Hydro points to as a reason why the spillway has to be replaced, claiming it has insufficient capacity.

For the last couple of years I have tried to find out what credible and defensible evidence the Corporation might be sitting on, and was disappointed to find that it all was at such a preliminary, same old low level of study, striking me as highly inappropriate and clearly insufficient for the task at hand.

While I am not a Dam Safety expert, I think I know enough about the subject to appreciate it when red flags go up, and in this case I have seen them go up just about anywhere I cared to look. And it takes just one flag, of course, to warrant the halting of the process, until the flag has been cleared.

To begin with, Manitoba Hydro does not appear to have a document with a detailed account of the decision-making process. A document that sets down all the essentials and shows the line of reasoning from data to conclusions. The Guidelines call for such a document; it should be logical, clear and presented in an open and transparent manner. The reasons for this are elementary; eg, this is about public safety, and the public has the right to know.

The Guidelines strive for Proportionality and Balance in all things, and specifically warn against creating and

> "imbalance between the costs incurred and the risk reduction achieved".

Has this warning been properly heeded and addressed in the decision-making process? The first part, the big time $400 plus plus million "cost incurred", is pretty clear, but how about the second part, the "risk reduction achieved"? Indeed, is it even clear that the spillway replacement would entail any reduction in the overall Risk-to-Life?

But it is to the more immediate question: To what extent does the existing dam pose a flood-induced Risk-to-Life? that my attention in the main has been directed.

The First Phase of trying to answer that question consists of answering the Guidelines' primary two questions: "What can go wrong?" and, "What is the likelihood (probability) of this happening?"

- An Engineering Consultant made a dam breach study in the mid-'90s. The Guidelines state that "The simplest and most conservative procedures may be applied as a first approximation", and I found the study to have all the signs of being just that, "a

first approximation".

- The second of the Guidelines' primary questions, "What is the likelihood (probability) of this happening?" has to all appearances not been addressed at all by the Corporation.

The Second Phase of a Risk-to-Life assessment, if deemed necessary as based on the outcome of the First Phase, would comprise the various studies required to answer the Guidelines third primary question, "If it (a flood-induced dam failure) should occur, what are the consequences?"

- Based on the just-mentioned dam breach study, three Engineering Consultants studied this in 2001/2002. Their ensuing reports did not reveal much detail, but showed every appearance of being at the "preliminary assessment", "first approximation" stage called for in the Guidelines.

For the purposes at the time, the level of all these studies was appropriate. But how can such low-level studies, piled on top of each other, possibly provide an appropriate foundation for the present $400 plus plus million decision? Is that in accord with the Guidelines

> "The level of effort and the resulting level of accuracy should be

commensurate with the importance of the dam safety decision that need to be made"?

Manitoba Hydro owes you and me, the ratepayers and owners, a detailed explanation of how this can be, so should provide higher-level studies that do.

A Third Phase, that of investigating alternative ways of dealing with what extent a Dam Safety Issue(s) possibly could remain at that point, would now follow.

There are many puzzles lurking within the general mystery of the spillway replacement decision; eg, why did Hydro reject the findings, as apparently based on the "[the] most conservative procedures", of the two Engineering Consultants, that pointed to a required spilling capacity (the 1000-year flood) that the existing spillway can handle with just a modest surcharge of the forebay? How did Hydro determine that an even more conservative value was needed?

The paramount Guidelines' question about any existing dam is, "Is it safe enough?" To answer this, should the above three Phases of the Standards-based Approach all prove inconclusive, one must

ultimately turn to the Guidelines Risk-based Approach to Dam Safety; it would appear that Manitoba Hydro has neglected to do that.

Look, I know: Dam Safety can be a bit of a beast; difficult to handle an outright scary. This is, therefore, not a critique of the "working floor" at Hydro; I know them to be stellar. The way Manitoba Hydro is organized and functions, it is the duty of upper management to determine to what level of detail and accuracy the evidence must be taken for it to "be commensurate with the importance of the resulting dam safety decisions", as per the Guidelines; i.e., for the evidence to be credible and defensible.

The successful resolution of the spillway questions that Pointe involves many issues beyond the small sample of engineering aspects touched on here. There are the Guidelines themselves, full of admonitions. Then there is all the other matter, including: the destruction of the Falls; the impacts of all those $400 plus plus million worth of disturbing activities in the middle of the Falls, in a Provincial Park; the risk to life and limb by a huge construction project in a difficult spot; the residual risk of the planned replacement structures; the destruction of a historic engineering gem and delight. For the dam here

was engineered to work with nature not to conquer it. That is how they were able to build and complete the entire project, everything and all, for just a bit over $3 million - about $60 million in today's money - a hundred years ago. Now compare that to the $400 plus plus million decision to replace just the spillway!

Ratepayers and owners of Manitoba Hydro, maybe you will decide that you care about all this and want to do something about it. If you should find that you are getting curious and want to unravel the strange enigma this decision appears to be wrapped in; I encourage you to take action. I have tried and failed, but I have heard the public clamour can be ever so effective. And maybe we shall get some help from our common friends and fellow Manitobans, in the media.

Per Stokke P.Eng

(WRITTEN PRESENTATION CONCLUDED)

THE CHAIRPERSON: Thank you very much, Mr. Stokke. You should know that in response to the letter that you forwarded to us we have forwarded some questions to Manitoba Hydro, written questions to them, to get further un -- information so that we can deepen

our understanding of the issues that you have raised with the various parties. And we're still awaiting a response from Manitoba Hydro.

Perhaps you might want to comment on the status of that request?

MS. PATTI RAMAGE: Yes. Thank you, Mr. Chair. Those responses, we should be able to have those in by tomorrow.

THE CHAIRPERSON: And so we'll wait for that response, and then we're going to consider that information and any other information that we might get from Manitoba Hydro before we make any decisions about what we shall do with the information that's before us. So thank you very much. You're obviously deeply concerned about the issue and certainly have spent a fair amount of time and -- on this issue. So on behalf of the Board, thank you very much for your presentation.

MR. PER STOKKE: Thank you for listening.

MS. PATTI RAMAGE: Mr. Chairman, if I may just interject.

Mr. Stokke, a number of times, referenced Manitoba Hydro's report. And it is something in -- in the normal course, Manitoba Hydro

presenters -- presentations aren't evidence, and as such, parties don't cross-examine presenters. But something in our preparations or in speaking with Mr. Peters, we indicated this was -- there -- Mr. Stokke agreed that that would be a document that could be disclosed. And he has spoken about it today, and I'm just wondering, I don't know if the Board has copies or if that's something Manitoba Hydro can provide.

Now, I know it was provided to Mr. Peters, but it was referenced. We do have copies here. Because I didn't see it in the distribution of presentations.

MR. BOB PETERS: Thank you, Ms. Ramage. And, Mr. Chairman, I might -- Mr. Stokke, you've indicated, I believe, through to the Board that the report from the Manitoba Hydro integrity officer was a document that you were giving consent could be shared with the Board and with the public. Is that...

MR. PER STOKKE: Oh, absolutely.

MR. BOB PETERS: Yes. Okay. And, Mr. -- Mr. Chairman, Ms. Ramage and I have had -- I think they've been late-night emails on this, and she did provide me with a copy of the report in response to the consent that the Board obtain from Mr. Stokke. My recollection, Ms. Ramage, is there were some conditions

on it being distributed. So I have not, Mr. Chairman, distributed it to the Board, but we do have it available.

I -- I actually thought it might be part of the package of material that Manitoba Hydro may want to file with the Board. We did ask a number of questions, as the Chairman has indicated, Mr. Stokke. And if the -- if the response to those is provided, perhaps that's where the report should be included, if that suits Ms. Ramage.

MS. PATTI RAMAGE: That's not a problem from our perspective. There wasn't a question that actually addressed the report, but we could file it along with those questions if that's the best way. Really, my concern was how we were going to get that in front of the Board today.

MR. BOB PETERS: I should indicate, Mr. Chairman, that once we do get a copy of Manitoba Hydro's materials, as a courtesy, of course, we'll certainly provide a copy to Mr. Stokke as well so that he knows what the Board has received. Thank you.

MR. BYRON WILLIAMS: Mr. Chair, Byron Williams for CAC (Manitoba) here at the back, in my very short chair.

I'm assuming that that report from the

integrity office will be shared with Intervenors as well?

MR. BOB PETERS: Mr. Stokke, Mr. -- Mr. Williams has asked if it's your -- if you're consenting to the report from Manitoba Hydro's integrity officer to be shared with all parties to this hearing.

MR. PER STOKKE: I -- as I understood it, this -- it is an official document right now, and I am perfectly happy with that, yes. Actually, I'm very glad that it is.

MR. BOB PETERS: All right. Thank you, sir. We just wanted to make sure that those protocols were met, because there were some -- there were some concerns about whether the doc -- whether you would agree to the document going forward publically. So we thank you for your -- for your consent, sir.

And I thank the Chairman. So that information, when it for -- comes from Manitoba Hydro, will be provided to -- to the parties as well.

THE CHAIRPERSON: Thank you very much, Mr. Stokke.

(WRITTEN PRESENTATION)

From: Carol Boitson

Sent: December 10, 2012
Subject: Rates

I disagree with Manitoba Hydro putting up the rates by 4 percent every year. I think that the big guys working there should have a pay-cut instead.

(PRESENTATION CONCLUDED)

(WRITTEN PRESENTATION)

From: Gary Luby
Sent: December 11, 2012
Subject: Proposed Hydro Rates

I just awoke this a.m. and read an article today in the Free Press regarding Hydro's proposed rate increases for the next 18 years. I am outraged that a public utility owned by the taxpayers would even think of such an increase. I am a senior citizen who just retired and I am on a fixed income. I don't get increases in my pension cheque to cover these outrageous increases.

Manitoba Hydro has to start getting their financial house in order. Building dames, and the proposed hydro line down the east side of Lake Winnipeg are luxuries that we cannot afford.

Should Manitoba Hydro want to build these projects, the costs should be incurred by the customers in the United States and the other Provinces. These projects are being built to supply power to customers other than Manitoba ratepayers. Selling cheap hydro to American customers is unacceptable. If building dams and hydro lines are cost prohibitive, then they should not be built.

Manitoba Hydro needs to start running this business in an efficient manner. This should not be a business where political hacks are appointed and then have the same hacks propose hydro increases on the public. I am not against some type of modest increase every couple of years. But not to the extent that Manitoba Hydro is proposing.

I have read in the paper the past number of years about mismanagement at Hydro. This really looks and appears to be the real problem at hand. Hydro needs to understand if they cannot afford to build these projects, then they should not. They also should be running this Crown corporation as a real business and if it means laying off and cutting back, then they should do so.

Manitoba ratepayers do not deserve to have these outrageous increases dumped on our backs.

If Manitoba Hydro will not run this outfit as a business, then the time has come to privatize this business. Maybe we all need to start buying candles and investing in power generators.

Yours
Gary Luby

(PRESENTATION CONCLUDED)
(WRITTEN PRESENTATION)

From: Doug Biggs
Sent: December 11, 2012
Subject: Hydro Increase

Rather than the customers paying more at the whim of Hydro's revenue shortfalls, how about that corporation tightening its belts and/or, do more with what they already have, like the rest of us have to do.

(PRESENTATION CONCLUDED)
(WRITTEN PRESENTATION)

From: Brandy Fleury
Sent: December 03, 2012

I am writing to express my concern over a news story aired on Global News on Monday, December 3rd that stated Manitoba Hydro was applying for a rate increase. The reason given was to upgrade lines in southern Manitoba as well as into the USA. I understand that our own lines need to be maintained but Manitoba Hydro sells our power (at a low premium price)to the US and the maintenance to those lines should be paid out of the revenue generated to supply those states with their power. I do not wish to be paying to maintain something that isn't even in my own country.

To be frank, if Manitoba Hydro wants to upgrade those transmission lines, they can pay for it. I hope the Public Utilities Board recognizes that this is an outrageous request. For Hydro to ask the citizens of Manitoba to pay to supply those in the US is just asinine.

Thank you for your time,

Brandy Fleury

(PRESENTATION CONCLUDED)

(WRITTEN PRESENTATION)

From: Jennifer Pacaud

Sent: December 03, 2012

I am writing to express my concern over a news story aired on Global News on Monday, December 3rd that stated Manitoba Hydro was applying for a rate increase. The reason given was to upgrade lines in southern Manitoba as well as into the USA. I understand that our own lines need to be maintained but Manitoba Hydro sells our power (at a low premium price)to the US and the maintenance to those lines should be paid out of the revenue generated to supply those states with their power. I do not wish to be paying to maintain something that isn't even in my own country.

To be frank, if Manitoba Hydro wants to upgrade those transmission lines, they can pay for it. I hope the Public Utilities Board recognizes that this is an outrageous request. For Hydro to ask the citizens of Manitoba to pay to supply those in the US is just asinine.

Thank you for your time,

Jennifer

(PRESENTATION CONCLUDED)

(WRITTEN PRESENTATION)

Date: December 4, 2012

Dear Sir:

Re: Manitoba Hydro rate increases

September 1, 2012, Manitoba Hydro requested and received a 2.5 percent increase and wants another 3.5 percent increase on April 1, 2013 which I believe should be refused.

The taxpayers of Manitoba, in essence, own Manitoba Hydro. My request is that Hydro rates be rolled back rather than increased for the following reasons:

1. Manitoba Hydro incurred major costs in purchasing Winnipeg Hydro and should not have done so.

2. Manitoba Hydro should not have built their expensive office building on Portage Avenue.

3. The Provincial Government of Manitoba and Manitoba Hydro spent and is still spending the taxpayers' money on advertising, i.e., Bipole III going on the West side of Lake Manitoba, et cetera. Why do they need to advertise? They are a monopoly - no competition.

4. The NDP under Doer and Sellinger have taken $275 million from Manitoba Hydro to cover Provincial shortfalls.

5. If Hydro is short of money why would they offer $40 plus pickup to retire old refrigerators? This means that the Hydro consumers/taxpayers are paying for this.

6. Another costly scheme by Hydro is the latest offer to pay for Retrofitting or Upgrading and actual costs are to be paid back via the Hydro bill over an extended period of time.

7. Since Hydro are having problems selling all the extra hydro power, why are they building or wanting to build another series of dams?

8. Hydro should not be supporting and/or sponsoring various organizations or competitions, tournaments, entertainments, et cetera. Their function is to serve Manitoba and provide their consumers with hydro power.

9. Customers are subsidizing Hydro employees' parking costs - employees and their bosses should be responsible for their own parking costs.

10. In 1975 Hydro and the Provincial Government said that in the future Hydro would be cheaper than natural gas - that didn't happen - so for those that were stupid enough to believe and went totally electric, we got screwed!

11. It is the belief of many that the

reasons for the recent floods in Manitoba were caused by Manitoba Hydro and the Provincial Government by keeping the water levels too high.

12. Hydro should quit the Power Smart Program and quit giving companies and corporations breaks that the ordinary homeowners end up paying for.

Manitoba Hydro does not appear to be operating very efficiently.

Yours truly

Douglas Macduff

(PRESENTATION CONCLUDED)

(WRITTEN PRESENTATION)

From: Allison Reid

Sent: December 11, 2012

Subject: Manitoba Hydro's New Cash Grab

I'm writing to Public Utilities Board as a concerned citizen over the new rate hikes proposed by Manitoba Hydro. I cannot fathom why I am on the hook for an 8 percent increase by Manitoba Hydro in a single year. This is madness. I don't see 8 percent hike in minimum wage. And it seems everything in terms of dollar figure is going up (tax, insurance, gas, food prices, et cetera) except wages.

Manitoba Hydro should cut back, like the rest of us would do it such a situation, or slash its executive pays and make due with what it has. I urge Public Utilities Board to not allow this cash grab by Manitoba Hydro. This simply isn't the solution. I am not Manitoba Hydro's chequing account which they can raid as and when needed.

Sincerely

Allison Reid

(PRESENTATION CONCLUDED)

THE CHAIRPERSON: Back to you, Ms. Ramage.

MS. PATTI RAMAGE: Thank you.

(BRIEF PAUSE)

THE CHAIRPERSON: Let's take two (2), please.

--- Upon recessing at 2:03 p.m.

--- Upon resuming at 2:13 p.m.

THE CHAIRPERSON: Once all the lawyers are sitting down, we can start.

(BRIEF PAUSE)

THE CHAIRPERSON: I believe everyone -- all the lawyers are sitting down. We -- back to you, Ms. Ramage.

MS. PATTI RAMAGE: Yes, thank you, Mr. Chairman.

MANITOBA HYDRO PANEL 2 - REVENUE REQUIREMENT RESUMED:
CONTINUED EXAMINATION-IN-CHIEF BY MS. PATTI RAMAGE:

MS. PATTI RAMAGE: When we left off this morning, Mr. Cormie, I think you were having a discussion with the panel regarding the optimization of Manitoba Hydro's participation in the export market.

And before I move on to my next question, I'm just wondering if you were able to finish off on that topic?

MR. DAVID CORMIE: Thank you, Ms. Ramage. I -- I wanted to -- to speak a little bit about the other activities that Manitoba Hydro does that are beyond those that under my direct responsibility as -- as being the -- in the power

sales.

The -- the entire operation of the bulk power system, including the dispatch of the generators and the scheduling of maintenance outages, are all timed in order to make sure that the capacity of the power system is available at the time when the power prices are -- are most advantage to Manitoba Hydro.

And one of the fundamental changes that has occurred in the way we -- we need to operate and maintain the power system is -- is, for example, example we do most of our outage maintenance at night. And that requires our staff, when they're doing outage maintenance, to -- to work in off-peak hours so that we can get the generators back into service during the on-peak hours, when the power prices are high.

And so -- and generally we find there's a significant value proposition there. For every dollar that we spend in overtime in order to work those night shifts we get back, you know, about ten dollars ($10) in -- in value.

And so we -- we've changed the way we plan and operate the power system, recognizing there's a time value of energy and there are -- are times when -- when you can do the maintenance. It may cost more to do the maintenance, but you're -- the benefits far

out -- off -- offset those.

We -- in our maintenance planning process we require every generating station to show significant payback on the scheduling of overtime at -- at least three (3) to one (1) so that -- so that if we spend a dollar, we -- we need to get back at least three dollars ($3). And that's because it creates a significant burden on the staff to work at night, when normally their work hours would be during the day.

And we want to be able to -- we want to have the certainty that, after the fact, that -- that we've got enough justification to impo -- to justify the expenditure of the overtime, but also the -- you know, the -- the benefit has to be significant enough for the Corporation so that -- that we're imposing, you know, unusual working conditions on the -- on the staff at the generating stations.

And that -- that scheduling of maintenance not only applies to the generators, but it also applies to the scheduling of outages on the transmission lines, especially those lines that go to -- - to the neighbouring market so that if -- we have the ability to have an outage, the outage will be schedule in the -- in the low-value months rather than in the high-value months.

And -- but there all -- there always is a cost associated with an outage, the question is: Where do you -- where do you -- when do you time that? And so, you know, the -- the whole operation of the pow -- power system has been attuned to the -- to the fact that our success as a company in the export market means that everybody needs to be pulling their -- pulling their weight.

And that even comes down to having the MISO prices posted in every generating station, in the control -- in the control room of the generating station, so that the operators can see the value in real time of the power that they're producing. And when they see that power prices are really high, the -- those aren't times when they -- they should be taking discretionary outages. They should be waiting for more opportune times, because there are times when generators are -- you know, the have the discretion of taking the outage or not.

And -- and so, you know, all the operating staff understand the importance of -- of the export market and -- and the importance of every generator unit in making Manitoba Hydro successful.

So I -- I just wanted to give a little bit of background. It's not just about the power

traders; it's everybody who's involved in the production planning process, from those people who measure the water levels to those people who manage the water resources to those people who do the scheduling of the maintenance, and the actual workers who are at the end of the wrenches, you know, fixing the equipment.

Everybody has a good understanding of the importance of the export market to Manitoba Hydro and -- and we're constantly reenforcing that.

MS. PATTI RAMAGE: Now moving to the next topic. Would you please update the Board on recent natural gas and electricity prices at the export markets?

MR. DAVID CORMIE: Yes. In the last year natural gas prices have fluctuated quite dramatically, and those prices have a significant effect on the price that Manitoba Hydro receives for its electricity exports, especially in the on-peak hours, when natural gas tends to be the marginal supply source of generation who sets the market clearing price.

The average spot price at Henry Hub this November compared to last November is approximately the same, around three dollars and forty cents ($3.40) a

million BTUs. However within this time frame the price had dropped almost 50 percent, reaching a low of -- it was a dollar eighty ($1.80) last April. And since that time it has rebounded, almost doubling to its current price.

The elec -- for electricity, the MISO, day ahead, on peak price at Manitoba Hydro's commercial pricing node has averaged for November twenty-eight dollars and fifty cents ($28.50) a megawatt hour. And that compared to twenty-seven dollars and sixty cents ($27.60) a year ago in November 2011. So it's up slightly about -- about 3 percent, on peak.

THE CHAIRPERSON: The -- when you talk of the pricing node, is it a notional pricing node or is it a --

MR. DAVID CORMIE: It is a notional pricing node. It's -- you know, there are -- there are four (4) transmission lines across the border but there is -- it's deemed to be a single point. And MISO calculates that -- the price at that -- at that -- at the border.

And the off-peak prices last November were -- or this November were nineteen dollars and fifteen cents ($19.15) a megawatt hour compared to fifteen dollars and fifty cents ($15.50) a megawatt

hour a year ago. So they're up 23 percent year over year.

And when we inclu -- include short-term contract prices, these aren't the long-term prices, but these are prices that we entered into months or a season in advance. Average prices in -- in November were thirty-one dollars ($31) a megawatt hour, compared to twenty-seven dollars ($27) a year ago. So up about 15 percent year over year. And a lot of that has -- as a result of some transactions that we are making with Saskatchewan to the west. So that's -- that's a favourable thing.

In spite of the volatility of the off-peak prices, our dependable long-term sale prices have been relatively unchanged year over year: fifty-two dollars twenty cents ($52.20) a megawatt hour this November, fifty-two dollars and thirty-nine cents ($52.39) last year. So the stable pricing in the -- for the long-term contracts, quite volatile prices in -- for the -- for the opportunity sales.

CONTINUED BY MS. PATTI RAMAGE:

MS. PATTI RAMAGE: Mr. Cormie, you've spoken about dependable and opportunity sales. Why does Manitoba Hydro have these two (2) type of sales?

MR. DAVID CORMIE: Manitoba Hydro maintains a mixed portfolio of long-term fixed price export sales, and we have spot market sales that -- that -- where the price floats with the -- with the market.

And the main reason we have for locking into fixed price sales is to maximize the value of -- of Manitoba Hydro's surplus because long-term sales not only bring the value of the energy but they reflect the value of capacity, environmental attributes, price stability, and predictability.

And so customers value those things, and they're prepared to pay for them. And they're prepared to pay up to the value of their -- the alternative. So if they can avoid building a generating station that would cost more, they're comparing that all-in cost to -- to Manitoba Hydro's price.

And -- and generally these long-term price contracts reflect the long-term value, and they don't necessarily reflect the opportunity sales. So if we have surplus that we can commit at -- at these long-term prices, we do that because we can -- we can extract that significant val -- additional value from -- - from the market.

And there have been times in recent

memory when spot prices have exceeded the long-term power prices. You know, when natural gas prices around 2004, 2005, and 2006 were -- were rising, spot prices for several years there exceeded the value of the long-term contracts. But since 2009 spot market prices are significantly lower.

I think for the month of November we're -- we're 83 percent more -- we're getting 83 percent more from our long-term sales than we are getting for the spot market energy.

MS. PATTI RAMAGE: Mr. Cormie, there was a fire at Jenpeg Generating Station recently. Would you update the Board on that event?

MR. DAVID CORMIE: Yes. Unfortunately, on Sunday, November the 4th there was an electrical fault at Jenpeg at Unit number 1, and the Jenpeg Generating Station was completely shut down.

Fortunately, no one was injured. There was extensive damage to the unit and its ancillary equipment, and the final cost of repair is not yet known. We have initial estimates that the damage is in the $10 million range and that it will take a couple of years to repair all the damage.

An investigation is underway, and Manitoba Hydro fortunately does have insurance and it's

working with its insurance provider to -- to see the extent of coverage. That coverage is subject to Hydro's deductible and to the exclusions in the insurance contracts.

As of last Friday only one (1) of the six (6) units at the station had returned to service. Three (3) more units are expected to return to service over the next few months. One (1) unit was already out of service due to an overhaul. We're estimating the loss generation had a value of about fifty thousand dollars ($50,000) a day.

The station has a capacity of 130 megawatts and produces about 900,000 megawatt hours a year. In an average year, it only represents about 3 percent of our total capacity. And the costs of this damage have not been included in the -- in IFF12.

THE CHAIRPERSON: Is it your expectation that the insurance would cover most of it if it's -- if it's an eligible loss?

MR. DAVID CORMIE: I believe our deductible is 5 million, so we -- I -- I don't think so. And we'll -- we'll be exposed to that 5 million for sure. Plus all the -- the value of the energy that's not being produced.

THE CHAIRPERSON: So I guess the --

that's the elephant in the room, is the energy that we can't sell because the -- the station is down?

MR. DAVID CORMIE: Yes. That's the fifty thousand dollars ($50,000) a day. And we're trying to bring those units back into service as soon as we can. It will take several months to have -- have the other three (3) units back in service.

THE CHAIRPERSON: So the insurance would cover both the -- the loss of equipment and also the loss of revenue?

MR. DAVID CORMIE: No. The insurance doesn't cover the lost revenues.

(BRIEF PAUSE)

THE CHAIRPERSON: I'm not sure about the timing of this, but since we are talking about export markets or you have talked about export markets and fixed versus the opportunity sales and so on. I guess one (1) element of export contracts that we don't read a great deal about is the export contracts -- I'm sorry, the export markets involving the neighbouring provinces.

And I guess, you know, there was a potential contract with Ontario back in the Conawapa

days, early Conawapa days. And, I guess, the question I have for you is, given the spread in prices between the neighbouring provinces, Saskatchewan and Ontario, it seems to me that would be a prime opportunity for Manitoba Hydro. And I'm just wondering, is it a prime opportunity for Manitoba Hydro?

MR. DAVID CORMIE: There is opportunity more to the west in Saskatchewan than east in Ontario. However -- and -- and we are actively working with Saskatchewan on some transactions. We held extensive discussions with Ontario about 2005 with regard to a 2,000 megawatt sale. Ultimately, the province decided that they would develop their own internal resources rather than purchase from Manitoba Hydro. And at that point, Manitoba Hydro took the majority of its surplus to the United States market. And -- and that led to the sale to Minnesota power and the discussions that we're having with Wisconsin Public Service.

One (1) of the issues is that -- that we face with both to the east and the west is that there's lack of a load diversity and lack of water supply diversity. So when Manitoba's in drought, Saskatchewan's in drought, so there's -- or northwest Ontario's in drought because we all share the same water. So when we have lots of water to sell, both --

both those neighbouring markets have lots of water, and they don't need our surplus, whereas in the United States, there's always an opportunity for the United States to absorb the surplus power that Manitoba has.

And the second factor is that both these areas are resource rich. And so we would -- it's like selling coal to, you know, Galasco (phonetic) or wherever that place is. But, you know, where -- you need to sell to maximize the value of the resource into a market that's short in resources. And -- and the United States is -- has that shortage. We don't see that lack of local resources in Saskatchewan or northwest Ontario. So they're not -- they're really not preferred markets.

We would like to get to southern Ontario, but that would involve a several-billion-dollar transmission line from northern Manitoba to Sudbury. That was the -- that was the focus of the discussions we had in 2005. And ultimately, they've chosen not to build transmission to serve -- to have Manitoba Hydro serve their -- load -- their -- they'll be developing their own transmission network to serve their own renewable resources. They don't -- they don't see Manitoba as being a supplier to them.

MR. RAYMOND LAFOND: In reference to

export prices, several minutes ago, you indicated to us, for instance, that the -- the prices of natural gas in November of 2011 versus November of 2012, and somewheres in -- in the middle of this it was nearly down to half.

I want to have some understanding of the relationship of electricity spot prices versus the price of natural gas, like what kind of relationship is there to that, or correlation?

(BRIEF PAUSE)

MR. DAVID CORMIE: The -- the market price for electricity is in the -- in the MISO market is tied to the most expensive generator that's running at that moment in time. And -- and in the on-peak hours when there's the peak demand for power generally the -- the natural gas units are at -- are at -- are the marginal supply of -- of power.

And so the co -- the cost of -- of the fuel, which is the natural gas, is -- is a significant part of that -- of that production cost. In addition to that you have the transportation costs. For example, the price of gas at -- in -- delivered to Winnipeg is fifty (50) cents -- generally fifty (50)

cents more per decatherm than the straight cost of the gas. You have to take the cost of the gas plus the -- the delivered cost of gas. And that becomes the cost of the energy.

And then in addition there's the cost of starting and stopping the unit, which can be significant. So in the off-peak hours natural gas is generally is not the marginal fuel supply, it's generally coal, or on -- on real windy nights it could be wind setting the price of -- of electricity.

So it really depends on the -- the magnitude of the load and which generator is -- is serving the load and whether there's enough transmission capacity between the marginal generator and Manitoba Hydro so that price signal works its way back to us.

And if there's not enough transmission then the -- the price would be set more locally to Manitoba Hydro than in Pennsylvania or in -- in Illinois. So there has to be adequate transmission for -- for that price from the marginal generator to work its way back to Manitoba Hydro.

MR. RAYMOND LAFOND: I understand that. However, could you give me, for instance, over the last year between November '11 and November '12, the dates

you were looking at, for instance the -- the spot price at peak time and off peak for electrical -- for electricity versus the price of natural gas. For instance, on the 1st, the 10th, and 20th of the month of every month, to see if there is a -- I'd like to understand -- I'd like to see the correlation between one (1) and the other.

(BRIEF PAUSE)

MR. DAVID CORMIE: We can prepare that, Mr. Lafond, yeah.

MR. RAYMOND LAFOND: Thank you.

MS. PATTI RAMAGE: Yeah, that will be an undertaking from Manitoba Hydro.

(BRIEF PAUSE)

MR. DAVID CORMIE: Yes, the undertaking is to compare the -- the price of natural gas to the -- the peak and the off-peak price of electricity for each day for the last year.

MR. RAYMOND LAFOND: I'm sorry, not for each day. I just want, like for instance, the 1st, 10th, and 20th of the month, like three (3) days per

month. I mean, I don't need three hundred and sixty-five (365) days just to get --

MR. DAVID CORMIE: It's actually easier to do them all.

MR. RAYMOND LAFOND: Thank you.

--- UNDERTAKING NO. 2: Manitoba Hydro to compare the price of natural gas to the peak and the off-peak price of electricity for each day for the last year

MR. DAVID CORMIE: That's why we have computers. If you make it complicated, then we have to go there and -- and do it selectively and -- better to do them all.

MR. RAYMOND LAFOND: No problem.

MR. LARRY SOLDIER: What -- what is the extent of your American market that you can sell power to? I know on the MISO diagram I think the southern region is Oklahoma. Can you transmit power to Oklahoma or can you make sales in...?

MR. DAVID CORMIE: The vast majority of Manitoba Hydro's exports are actually consumed in Minnesota. Theoretically you can construct a contract

path going all the way to Florida and -- but, you know, so contractually the -- the power is paid for and priced in Florida, but physically the electrons probably sink in -- in Minnesota.

And -- and so, you know, there's this issue of where the power flows, but who actually pays the bill, those are separate. We have entered into transactions that go almost all across the eastern interconnection. The United States and Canada are divided in two (2). There's the eastern innerconnection and there's the western innerconnection; Saskatchewan and Manitoba and Ontario, everything to the east is part of the eastern interconnection, and Alberta, British Columbia, and most of the western states are part of the western interconnection. And -- and electrically and fundamentally they're separate power grids.

So anywhere in the eastern interconnection we can -- we can almost transact; but where the power flows, its generally used locally.

MR. LARRY SOLDIER: Now you'd indicated that you couldn't transmit power right now, and before you could.

Is the reason because they don't want to let you use the transmission line, or is it the

capacity of the transmission is they can't add any more power to the line?

MR. DAVID CORMIE: Transmission lines have a physical capability, and then there's the contractual right to use that capacity. And under -- and under those rights, at times there are limits to -- regulatory limits to who can use that transmission.

And so at -- in 2005 one of our US companies interpreted their rights to include using transmission that had been reserved for their native load for use for merchant transactions. And since that time, they've -- they've changed their position, and -- and Manitoba Hydro is not allowed to use tho -- that what we call network service for the -- for merchant transactions.

And network service is firm transmission, and it provides us guaranteed access into the market. If we're not allowed to use that firm transmission, we have to use non-firm transmission. And our transactions then get -- cause congestion and they're subject to curtailment. So if we're not able to use the firm transmission, we have less firm access, and we're subject to the ability of the -- of the grid to absorb our electrons.

It's -- it's an issue of -- of rules

rather than the physics of the -- of flow when it comes down to the use of transmission.

MR. LARRY SOLDIER: Would there be any time that Manitoba Hydro could construct its own transmission line in the United States, and what permissions are required in - - in order to serve some -- some of your customers further south?

MR. DAVID CORMIE: I think theoretically Manitoba Hydro could propose a transmission project in another jurisdiction, and it could be in Saskatchewan, Ontario, or any of the states -- United States. But there is a regulatory process.

And -- and like -- like it is in Manitoba, building transmission is very controversial. And not only do you have to have a proponent, but you have to have a -- you have to convince the -- the regulator to condemn lands for the purpose of that transmission. And -- and politically, we believe it would be almost impossible for Manitoba Hydro to come and start to acquire lands and for the -- to acquire right-of-way in a -- in an area that it doesn't have any customers. In effect, we're building through a state trying to reach another state, and I would judge it almost to be impossible to convince one jurisdiction to allow a flowthrough transmission line.

And that's the -- that's the reason why we have a partner in Minnesota, with Minnesota Power, who is prepared to build transmission not only for their own use, but to help Manitoba Hydro reach markets in Wisconsin. And that's the value of having Minnesota Power at the table right now. We can build a bigger line than we would normally be able to build because they're prepared to advocate and -- on our -- on our behalf to condemn lands for the purposes of this line.

Yeah, it's -- I -- building transmission is difficult in Canada. It's -- it's extre -- very -- extremely difficult in the United States, even more difficult than here.

MR. RAYMOND LAFOND: As a matter of curiosity, you referred to the eastern interconnection, or grid, versus the western grid. Generally speaking, are the spot prices peak and off-peak fairly similar between one grid and the other, or are they totally different?

MR. DAVID CORMIE: If the fuel -- if the fuel is the same for the marginal generation, they should be -- should be the same. But they're -- they -- they -- there's -- there's no main physical connection. So you can have prices in -- you had prices in 1998 in California of three thousand dollars

($3,000), where the price in -- in -- in -- in -- in Minneapolis was -- was a hundred dollars ($100). If there was a -- if there was a connected transmission line of sufficient size across the interconnection between the two (2) regions, you wouldn't get those price difference -- those basis -- those basis spreads.

So there -- they should reflect the cost of natural gas, but they don't necessarily, because it -- it could be that, you know, there's a shortage of generation, and it -- it's causing the price spike, rather than the fundamental fuel price.

MR. RAYMOND LAFOND: I -- I understand that. I'm -- and I know, having read about this, like, of the California prices. But generally speaking, like, at this -- as of this time, like, not any particular gay -- day, but, like, are they relatively similar on the average over a period of a year?

Or are they very different, like, more -- like, double or something to that effect?

MR. DAVID CORMIE: I don't know the answer to that. I --

MR. RAYMOND LAFOND: That's fine.

MR. DAVID CORMIE: -- know the prices -- the prices in -- in the MISO go up and down, you know? If prices are high in Minneapolis, they're

generally high in Chicago. But prices go up and down in California, and they are not related to what's happening in -- in -- in the East.

THE CHAIRPERSON: My question's in relation to St. Joseph and St. Leon, the wind farms there. And I guess I know there's a pre-established form of setting the prices that -- that you -- for the power that you get from them.

Do you have to take all of the power that they generate?

MR. DAVID CORMIE: Yes, we do. It's a take or -- take-or-pay contracts.

THE CHAIRPERSON: So -- so even though that the prices may be cheaper in the US for wind -- wind energy, you still -- you're still committed to the -- to the contractual arrangements you have from those local wind farms?

MR. DAVID CORMIE: Yes. And -- and it's like the cost that we incur for Wuskwatim. It's an all-in cost, and it's -- it's -- it's -- you calculate the price that the -- the contractor ha -- or, the -- our -- our supplier has contracted the -- has calculated the cost of the wind farm to construct. He's determined what his taxes are and his -- his depreciation and his interest, and he's rolled that

back into a price. And we pay that price.

So we're not paying for anything that they're not delivering, but it's an all-in price, whereas spot market electricity is just the cost of -- of the incremental fuel needed to provide that. It's not an all-in cost. We're not recovering the -- the supplier of spot market energy in the market place. He's not recovering any fixed costs. He's just recovering his marginal operational costs.

So it's -- it's -- it's not really a fair comparison to compare, you know, the cost of the output of a facility that we've contracted for to the cost of spot market electricity. There -- it's an apples and oranges comparison.

THE CHAIRPERSON: Now, the addition of the ener -- energy region into the MISO footprint will have a number of impacts. And I guess the question I have is:

Do you expect that that would have an out -- put -- put upper -- put pressure on prices in the MISO region?

MR. DAVID CORMIE: I -- I believe that to be the case. I think that's a favourable thing for Manitoba Hydro, especially if there are stronger interconnections built between the existing MISO

footprint and energy in order to allow more trade across those seams. We will then more often see the -- the price set in -- in -- acro -- in a bigger footprint than in the footprint that we're seeing now. So I think it is a good thing for -- for Manitoba Hydro.

THE CHAIRPERSON: Now, I have some questions regarding reliability, and I was sort of wondering what the -- whether it's the appropriate panel to address those questions or do -- do you --

MR. DAVID CORMIE: Yes, we will take those. We may not be able to answer them here, but we'll undertake to do so.

THE CHAIRPERSON: Well, referring back to some of the testimony we heard this morning about, you know, the concerns around the aging infrastructure and the -- the -- the consequent issues around reliability, and I recall reading some data relating to the benchmarking that you're doing with respect to liability and particularly the outages and so on that you're experiencing in your network.

And, I guess, could you comment about the general direction of -- of those benchmarks and what's driving the fact that we're seeing results that are beyond the sort of targets you've set for yourselves?

MR. VINCE WARDEN: Mr. Chairman, we -- we do set targets for ourselves, in terms of outage frequency, outage duration. And what we're seeing more recently, as I mentioned very briefly in my opening comments, is that we're seeing degradation of the -- of the service that's being provided such that we're having to revise our targets upwards, because we know we're not going to be able to meet those targets.

So the -- this last -- actually, we -- we review this annually as part of our strategic planning process. And because we were not meeting targets, we made a decision to increase -- increase the targets.

We're still -- we're still favourable, compared to other jurisdictions in Canada. But -- but, whereas that -- that was -- there was more of a margin in the past, that -- that gap is definitely narrowing now. So the people that work with this are attributing that to the condition of the infrastructure.

THE CHAIRPERSON: Are there areas that are of -- of more concern than others? I mean, are we, for example, seeing more outages in particular areas of the city or particular regions of the province?

MR. VINCE WARDEN: We are, for sure. The City of Winnipeg is -- is an area that's most

affected for a number of different reasons: the age of the infrastructure, along with the load growth that we're experiencing in different parts of the city.

We do have a expert on this that is sort of in the wings that can speak to this issue which -- yeah, depending on the -- on the depth of the questions, we can bring this person in to speak to this more capably than -- than the people on the panel can. If that's the desire of the Board, we can certainly -- we can certainly bring that person forward.

THE CHAIRPERSON: Well, given that this is said to be one of the drivers for the near -- nearby rate increases, we should probably have somebody come in and talk to us about that, please.

MR. VINCE WARDEN: We will make those arrangements, yes.

MR. DAVID CORMIE: Now, Mr. Chairman, an extreme example of aging infrastructure is the Point du Bois generating station where nine (9) of the sixteen (16) units are such down right now because of -- of their age and condition.

And so, if you leave it too long, eventually you would lose almost the entire capability of the station then. And we hope to have some of those units back in the next while. But that's an extreme

example of -- of leaving your maintenance way too long.

MR. RAYMOND LAFOND: On that particular point, what kind of analysis is done as to whether or not it should be abandoned or repaired? If you look a the cost of generating the electricity from one site versus the new site -- because Wuskwatim just got online, it's on -- it's not fully used; so therefore may be some infrastructure that needs to be replaced is better off not being replaced and -- and shut down.

I mean what kind of analysis do we do in that regards?

MR. DAVID CORMIE: With regard to the units at Pointe du Bois there is a relatively quick payback. It might just be three (3) years for -- to get those units back into service, but those won't be -- those won't be long term. That will not -- not result in a unit that will last another thirty-five (35) years. That -- that will just get it probably going another ten (10) years.

So, you know, the - the question is -- for that station is, you know: Do we refurbish the entire powerhouse and that's our ultimate plan and we think we can keep it going for -- for another fifteen (15) or twenty (20) years? And ultimate -- but ultimately we believe that that powerhouse will have to

be -- have to be replaced.

The question at that time will be is: What are the -- what are the cost of the alternative? And does refurbishing Pointe du Bois and -- and to get another hundred years out of it, is that compare -- is that cost competitive to a new -- a new supply source?

We will have already invested hundreds of millions of dollars in the infrastructure in the spillways and the dams, so it will just be the cost of getting the -- of replacing the powerhouse at that time. But we think we can -- we can defer that decision for -- for a good while now. We -- we think we can -- it makes sense to get those out-of-service units back into service and -- and keep them going until that time.

MR. RAYMOND LAFOND: Because if I'm hearing right, I mean, you could at a point in time decide not to proceed with the station or the powerhouse and -- but you'd still have to do -- to fix a spillway in the dam regardless?

MR. DAVID CORMIE: Yes. We believe we have an ongoing obligation to maintain the water regime at that location. So abandoning the site and walking away is not an option.

MR. RAYMOND LAFOND: Thank you.

MS. PATTI RAMAGE: Mr. Chairman, it -- Mr. Hall, who is the witness Mr. Warden just referred to, is now present. I -- I was going to suggest perhaps if we could have him sworn, I would just have him very quickly introduce himself to you, and then you could direct the questions you had with respect to aging infrastructure to Mr. Hall.

JAMES HALL, Sworn

CONTINUED BY MS. PATTI RAMAGE:

MS. PATTI RAMAGE: Mr. Hall, this would be your first time testifying before the Public Utilities Board?

MR. JAMES HALL: Yes, it is.

MS. PATTI RAMAGE: Just to be clear, this would be your first time sitting in this front row or in this room?

MR. JAMES HALL: Pardon, what was that?

MS. PATTI RAMAGE: This is your first time at a hearing. Is that correct?

MR. JAMES HALL: Yes. Yes, even in the room. I thought I would be at the back.

MS. PATTI RAMAGE: I just thought we should, you know, set the -- the record straight. Mr.

Hall, what is your position at Manitoba Hydro?

MR. JAMES HALL: I am the division manager of Distribution, Engineering, and Construction (Rural). And so in that context my resp -- responsibilities would be for the distribution system only. And there is a group in my division that looks at our reliability performance and -- and gathers those measures that were discussed earlier.

MS. PATTI RAMAGE: Mr. Chairman, I -- I have no further direct for Mr. Hall. So perhaps if you would like to just pose your questions to him.

THE CHAIRPERSON: The first time I appeared before a Parliamentary committee in Ottawa, the member of opposition pointed at me and said, You should be fired.

MR. JAMES HALL: So -- so if I come out any less than that, then I'm good then.

THE CHAIRPERSON: Let's just say I'll spare you the indignity.

MR. JAMES HALL: Thank you.

THE CHAIRPERSON: We won't -- we won't do that. I -- I do want to understand the -- the state of -- the state of Manitoba Hydro's infrastructure, because it -- it's a message that comes out through and through in the -- in the submission, that the state of

Manitoba Hydro's infrastructure needs to be addressed on a go-forward basis, not -- I'm just talking -- I'm not talking about new capital investment I'm talking about the -- the baseline infrastructure that we have in place.

What do you perceive to be the priorities, you know, looking at the -- the total network? Where do you see that the -- the areas where -- which are in the most need of investment?

MR. JAMES HALL: And there again, I'll limit my answer just to the distribution systems, which is basically outside of the substations. Poles and underground cables, and -- and it would be those two (2), I guess, in terms of what we see as the -- needing the most investment.

Poles, because of their population, we have about a million poles in the province. And underground distribution cable. And in the -- you know, primarily when the question was raised, areas of the province, the City of Winnipeg has the largest length of -- of underground cable and so -- so they would -- there -- they'd be the -- the area that's most affected because of that particular asset.

THE CHAIRPERSON: Now, are we talking about a particular region of the city? Are we talking

of -- you know, I know that Manitoba Hydro has taken over the assets of Winnipeg Hydro, are those the -- the critical parts that...?

MR. JAMES HALL: No, these -- the underground cables that we see being most in need of replacement are typically the ones that are direct buried in subdivision areas. And so it wouldn't be necessarily the -- the core area of Winnipeg, the -- the former Winnipeg Hydro service territory.

THE CHAIRPERSON: Now, when -- when you -- when a new subdivision is constructed, Manitoba Hydro supplies all of the infrastructure that -- that goes into the subdivisions? There's no contribution from the developer, there's no --

MR. JAMES HALL: There is contribution from developers, but we certainly provide all of the material that is installed, right up to the -- the customer meter.

THE CHAIRPERSON: So in terms of your capital -- your capital budget, so there would be a portion allocated to -- to do -- to new developments, I guess, and a portion allocated to some of the existing infrastructure? Is that how this --

MR. JAMES HALL: Yeah.

THE CHAIRPERSON: -- system works?

Okay. And in terms of deciding where the investments will go for the aging infrastructure, how is that decision arrived at? How -- how do you prioritize the -- the various investments that you could potentially make each year?

MR. JAMES HALL: I would say in a general sense we look at our reliability performance and the failure of different assets. And -- and so an example would be our integrated pole maintenance program where we -- we inspect our poles and -- and get a feel both for the -- the condition of our poles and the -- the time we should be replacing them. And that would give us an idea of the volume that we should be replacing as well.

THE CHAIRPERSON: So some -- some part of the infrastructure is being addressed on a systematic basis? I guess you're replacing 'X' number of poles per year. Is that -- that right? And then anything that's sort of out of the ordinary, unusual, is also a budget element?

I mean, you have a portion of the budget that's sort of the basic infrastru -- or at least the regular investment plus whatever is needed over in top -- overtop. Is that...?

MR. JAMES HALL: We have -- I guess we

budgeted maintenance programs, and so we do have a pole maintenance program that we would identify to invest in poles in each year. I'm not sure if that --

THE CHAIRPERSON: So what I'm get -- trying to get at is if suddenly you have -- if suddenly you have a dramatic failure of some component in the system, and we just talked about Jenpeg, that would have to be accommodated within the budget you've established?

Or is it -- do you -- do you -- is -- the expectation is that those incremental expenses that have to be borne by Hydro?

MR. JAMES HALL: In -- in distribution we would accommodate that within our existing capital budget. If there was a replacement that -- that is needed, we would accommodate it within our -- our capital budget.

THE CHAIRPERSON: So, for example, if -- if this panel decides, Well, we're going to increase the tariffs or the rates for -- for customers because we need to address aging infrastructure -- I guess the question, and I'm not sure you're the one to answer the question but the question is:

Is that investment going to be going to infrastructure or is it going to be going to other

expenditures?

MR. JAMES HALL: I think you're right that I may not be the one to answer that question.

MR. VINCE WARDEN: Mr. Chair, with the approval of this rate application Manitoba Hydro will continue to maintain the system. The point I think we have been making all along though is that -- that we are -- we have -- in terms of budget increases -- what we have in the budget today is very minimal in terms of the -- what we see ahead of us in terms of increased maintenance requirements for infrastructure.

So as Mr. Hall spoke of, poles and underground cables for sure, but also it goes much beyond that. It goes into a lot of the stations. A lot of the stations around the City of Winnipeg are -- have to be replaced. And -- and in fact we're getting -- a lot of the outages that we're seeing are -- are due to station -- problems within those stations.

So major expenditures that need to be re -- that are required to maintain and upgrade those -- those facilities largely because of age but also because of the growth around the City of Winnipeg.

THE CHAIRPERSON: So we keep -- we keep talking about inflation increases and so on, CPI being sort of the litmus test for expenditures. But in

reality, in your world CPI doesn't mean a great deal. I mean, you're talking about copper which is very expensive, and electric -- have you got some idea of the kind of rate increases that -- sort of increase that we're looking at in that area going forward?

MR. JAMES HALL: I guess the short answer would be not yet in the sense that we know -- we've -- we've done a -- prepared a report on the distribution side that shows us that we do have a looming increased need for investment in our infrastructure, not for new load reasons, not for capacity increase reasons, but because that infrastructure in different categories is reaching the end of its life. But we are just in the process now of quantifying that and laying it out in terms of the timeline.

THE CHAIRPERSON: I guess the point I was getting at is, you know, part of your expenditures involve labour, but there's a part of it that involves components, all right, and so on. And I'm trying to get a sense of -- of the -- the inflation that's a factor for tha -- for those components.

Can you give us a sense of that? You know, what -- you'd be looking at 10 percent increases per year, are you looking 3 percent?

MR. JAMES HALL: Yeah, I don't know. I'm not sure.

MR. VINCE WARDEN: Yes. I believe, Mr. Chair, in our rebuttal evidence, we did refer to some of the increases that we are experiencing in commodity and material costs. And certainly, in previous proceedings, we filed a lot of material indicating how susceptible Manitoba Hydro is to -- to the increases in -- in those commodities.

You're absolutely right that CPI is probably not the best measure, because we don't -- other than for wages and salaries we don't work a lot with CPI. A lot of the material -- materials that we purchase are -- are unrelated to CPI.

So yes, then -- it was just pointed out to me on -- on page 11 of the rebuttal evidence, there is some indication there of the cost changes that we are -- we are -- we have an experience from January 2009 to December of two thou -- 2011. So the increases are -- are -- are much higher than inflation over that period of time for a lot of our input costs.

(BRIEF PAUSE)

MR. RAYMOND LAFOND: Just following up

on the Chairman's questions, in terms of new developments, new subdivisions, I heard that the developer pays for a portion of a cost. What would be that portion? Because I know, for instance, a developer of a new subdivision has to pay for all the streets, et cetera, originally, except that they're main thoroughfares. What would be an estimate of -- is it 20 percent, 50 percent?

MR. JAMES HALL: I think I'd have to refer to our Customer Care and Marketing division manager for help with that. Is Lois around? Oh, she is right at the front. How'd you get here?

MS. LOIS MORRISON: We have an allowance policy for when a developer is, say, putting in a new subdivision and we are extending natural gas and electricity to -- to the unit. The allowance is based on what we anticipate to recover as a portion of that distribution char -- through the distribution charge into the future.

I can get you the approximate value. I don't have that at the tips of my fingers, but we do have an allowance policy that recognizes that over the term of the installation we will be recovering a portion of that capital investment through the rate base. But they are asked to pay for the off-setting

contribution required.

MR. RAYMOND LAFOND: So you will pro -- be providing us this additional information?

MS. LOIS MORRISON: We will get you an approximation for it, yes.

MR. RAYMOND LAFOND: Thank you.

MS. LOIS MORRISON: We will identify the approximate capital contributions that are requi -- that are asked for when we're doing a development. We will be using a Winnipeg development as an example.

--- UNDERTAKING NO. 3: Manitoba Hydro to identify the approximate capital contributions that are asked for when doing a development, using a Winnipeg development as an example

MR. RAYMOND LAFOND: From what I have heard, every Manitoban -- I think just about every Manitoban owns one of these poles, based on the numbers you indicated. Why -- what's the cost-benefit analysis of having wood versus cement? Because if you travel in some countries it's nearly all cement. And do you have

a response for that?

MR. JAMES HALL: We could prepare that as well. Generally, wood is significantly less expensive. And in Manitoba, because of our winters, the age of the poles are -- or in the northern climates, poles are typically used because they last a lot longer. Southern climates would have issues with earlier rot and insects also is an issue where you may find that -- that cement poles are used.

MR. RAYMOND LAFOND: So there's a cost-benefit to use wood rather than cement in Manitoba?

MR. JAMES HALL: Yes, there is.

MR. RAYMOND LAFOND: That's sufficient. Thank you.

The other issue of the provision of providing distribution through underground cables versus aboveground. What kind of analysis do you do for this?

MR. JAMES HALL: Analysis in terms of...?

MR. RAYMOND LAFOND: In terms of cost-benefit analysis.

MR. JAMES HALL: Lois, can you help me with that one, as well?

MS. LOIS MORRISON: The -- the

developer is given the option of overhead or underground, and the developer pays the difference.

MR. RAYMOND LAFOND: My last question: I -- I've heard that Manitoba Hydro is still in the process of essentially evaluating the future costs of replacing degrading infrastructure. I know we've seen some numbers, something like $11 billion over the -- if I remember correctly -- over a period of twenty (20) years.

Am I hearing that we could have some real surprises yet on this, and that could may -- maybe increase substantially?

MR. JAMES HALL: I -- I think there was a note in the submissions that talked in the neighbourhood on the distribution system of 50 million per year over the next twenty (20) years. And although that is certainly an average, and it's a very early cost in that sense, I don't think we're in a -- in a crisis in that sense. I don't think there's surprises.

We are assessing what those investments will be and in which years they will be. But I -- I wouldn't say that there's a surprise on the distribution side. And once again, I'll talk just about the distribution side of the -- the business.

MR. RAYMOND LAFOND: The distribution

side would be about $50 million per year for twenty (20) years?

MR. JAMES HALL: Additional investment -- that's the -- the -- you know, the -- the ballpark in terms of --

MR. RAYMOND LAFOND: Yeah.

MR. JAMES HALL: -- additional investment in replacement of our infrastructure.

MR. RAYMOND LAFOND: Strictly in terms of distribution.

MR. JAMES HALL: Yes, excluding -- and that's excluding the substation. So the -- the substations are, you know, a separate matter. And there are both capacity and age issues, especially in Winnipeg, on the substation side.

MR. RAYMOND LAFOND: Thank you.

THE CHAIRPERSON: I have some friends that live in Southeastern Manitoba, and in the area that was affected by the significant power outage this year. And I guess the question I have for you is: For the client that has a disruption of service that runs on for an extended period of time, what accommodations do you make for that particular client?

In other -- in other words, just say to him, There's no power for the next two (2) weeks, we'll

see you in two (2) weeks. Is -- is -- I -- I want to understand to what extent do you assist the clients in those kinds of scenarios while they're waiting for power to be re -- reestablished?

MR. JAMES HALL: I think communication is key with our customers during that time. And so there is significant public communication about our plans to restore power. There is a -- in using the example of the -- the ice storm in Southeastern Manitoba, we -- we had an emergency operating centre that would keep track of and assess and triage the damage, and dispatch our resources accordingly to -- to ensure that we both restore power to the most number of customers as quickly as possible.

And so often that process -- there are some customers who are at the tail end that may be on long feeders that have been significantly damaged. And really, what we do is communicate through the -- the different public media of the -- the plans that we have, and -- and be available to -- to answer customers' questions in that sense.

THE CHAIRPERSON: So there -- for example, you -- you don't put generators in place, diesel generators or portable generators, in place to assist hospitals or schools, or...

MR. JAMES HALL: No, and typically a facility like a hospital would have its own backup generation, typically diesel.

THE CHAIRPERSON: So fundamentally the client is on his own, or her own, in terms of -- of dealing with a power outage?

MR. JAMES HALL: Yes, in -- in that type of situation, yes. Yeah.

MS. LOIS MORRISON: Perhaps I should weigh in here. We do work very closely with the local municipalities' emergency operating centres also and work in coordination with them to make sure that they are well aware of the extent of the outage, the duration of those outages, so that there are -- if there are -- they can help us identify customers that might be vulnerable or help them better understand how they should be dealing with it, from a life and safety perspective.

So if we know that we're going to have an extended outage in, say, Lac du Bonnet, and there's a personal care home there and they are looking to, say, evacuate that personal care home, we work very closely with them so that it -- they can best identify the best place to evacuate to so that they don't go to, say, Beausejour if Beausejour is also going to be out

for an extended period of time.

It's -- when we're dealing with a large storm such as what we experienced during the Thanksgiving weekend, we coordinate with all the other resources in place to make sure that we are -- that we keep life and safety at -- at the forefront.

THE CHAIRPERSON: All right. I guess the -- the follow-up question, you know, given that we are dealing with aging infrastructure more likely to have outages that last -- that -- more frequent outages that last longer in the context of an aging infrastructure scenario, I guess the question is:

What are the plans for Manitoba Hydro to assist clients who will be suffering these outages?

MR. VINCE WARDEN: Well, Mr. Chair, I think that's the reason why we want to make sure, first of all, we have sufficient funding to -- to avoid a situation where there is -- a catastrophe occurs and that we have the facility to move crews to the areas that are hit the hardest during unexpected events such as storms that -- that affect the aging infrastructure.

The age -- age of infrastructure is more vulnerable to storms than -- than the infrastructure that would have been installed more recently. So we're aware of that and we make sure that we restore power

just as quickly as we possibly can and that we limit the -- the duration of the outages.

THE CHAIRPERSON: The norther -- Northeastern United States suffered an extensive outage not that long ago and -- which went on for a number -- quite a long time for some of the clients. And I guess the question -- there will be some lessons that will be generated from that experience and I -- I guess the question to -- to Manitoba Hydro is:

Do you have systems in place to -- to draw the lessons out of those experiences and apply them to the situation in Manitoba?

MR. VINCE WARDEN: We absolutely do have emergency preparedness plans in place for events that can be foreseen. If we were to lose though -- if we were to lose -- had a major impact on one of our converter stations you -- either north or south, the impacts could -- the impacts on Manitoba could be very significant. That's the -- the risk that we're most concerned about at Manitoba Hydro is addressing an outage at Dorsey or -- or along the trans -- the major transmission line from the North, the HBDC system.

The outages could be -- you know, we're -- as I mentioned earlier, we derive 75 to 80 percent of our power from the North. And if we got an outage

of that magnitude in the middle of winter, the results would be catastrophic.

THE CHAIRPERSON: I -- I guess this -- the question then: We talked about insurance that was available in the Jen -- to deal with the Jenpeg scenario. But I guess the question I have is a -- more generally about what insurance might be available to deal with similar scenarios, whether that's possible or not, whether it's available somewhere in the system.

You know, I know for example that a number of years ago United Grain Growers developed a policy which provided for a drop in revenues stemming from droughts in Western Canada. And they -- they got some significant payouts from -- from that insurance policy.

And I guess the question I have is: Is that something that has ever been considered by Manitoba Hydro? And perhaps you could just answer that question.

MR. VINCE WARDEN: Yes, we have looked at weather-related insurance in the past, the -- insuring against the impacts of weather. The premiums associated with that were very large, and we determined there was -- there was insufficient potential for payback for us. So we did not pursue that.

THE CHAIRPERSON: And I guess that would apply as well to outages that may -- may impact the system. You -- getting insurance for outages that are of varial -- variable duration would be expensive. Is that...

MR. VINCE WARDEN: Yes, the outage that Mr. Cormie referred to earlier at Jenpeg, you know, we do have insurance; we have fire and -- and casualty insurance, but not for the revenue side. And I guess that's -- that is your question as to whether we've ever considered that. And, no. No, we haven't -- we haven't -- I suspect it wouldn't be not too dissimilar though from -- from weather-related premiums that would be -- that would likely be exorbitant. You know, after all, supplying power is our business, and we have to make sure that we can -- can supply that power under -- under known -- all known conditions.

MR. RAYMOND LAFOND: I guess in the same line of thought, all this transmission that's coming in from up north is all above ground.

Is there a possibility of adding that underground in the future whenever it's got to be replaced?

MR. VINCE WARDEN: Well, there -- there certainly have been studies about transmission lying

under Lake Winnipeg. Haven't ruled it out totally, but at this point, compared to the alternatives, it would be cost prohibitive.

THE CHAIRPERSON: Given the time, I suggest we take ten (10) minutes and resume proceedings at 3:30.

--- Upon recessing at 3:16 p.m.

--- Upon resuming at 3:33 p.m.

CONTINUED BY MS. PATTI RAMAGE:

MS. PATTI RAMAGE: Mr. Chairman, it looks like we've shuffled the deck again and brought Mr. Rainkie back up, and we have Mr. Hall in the back.

I thought at the break -- or, following the break, we would finish off. I have a very brief direct of Mr. Miles and Ms. Morrison, and then we would open ourselves up to cross. So we wouldn't be long with that.

Mr. Miles, really the only question I had for you today, could you perhaps outline your qualifications and areas of responsibility with respect to Manitoba Hydro's filing?

MR. TERRY MILES: Certainly, yeah. Thanks Ms. Ramage. My name is Terry Miles. Good

afternoon, Chairman and members of the Board, Intervenors, and others present here today.

I hold a position of manager, Resource Planning and Market Analysis in the Power Planning Division of the Power Supply Business Unit. I'm a professional engineer, registered with the Association of Professional Engineers and Geoscientists of the Province of Manitoba.

I've been with Manitoba Hydro for over nineteen (19) years and have been working in the power resource planning area for the past four (4) years as a manager of Resource Planning and Market Analysis. I've been involved in several proceedings related to Manitoba Hydro Electric rate applications. I've been in the back row. I have never been a witness except for this year. First time as well.

In my testimony today, I will be providing evidence -- or, throughout the hearings, I will be providing evidence with respect to Manitoba Hydro's plans for future resource development, the determination of export revenues and generation costs in the long-term, and the expected cost of drought in the future. I will also be providing evidence with respect to the development of marginal cost that are used in evaluating resource options, including DSM.

MS. PATTI RAMAGE: Thank you, Mr. Miles. I -- I didn't have any specific questions for you. And I was just going to bring Ms. Morrison, who's already jumped into the -- the fray. But I thought I'd get her qualifications onto the record.

And I should provide the caveat, in fairness to Ms. Morrison, that in Mr. Peters's and my exchanges, she was originally set for the second panel, but when we saw the -- Mr. Peters's book of documents, she was brought into the first panel. So our -- our direct is -- is limited to her involvement with respect to the load forecast and the fuel switching report. Mr. Warden had indicated Ms. Morrison would also be dealing with demand-side management. We'll deal with that portion of our direct when we get to the third panel, if that's okay.

So Ms. Morrison, could you please outline your qualifications and area of responsibility with respect to this portion of Manitoba Hydro's filing?

MS. LOIS MORRISON: Good afternoon, Mr. Chairman, members of the Board, Intervenors, and -- and everyone else present.

My name is Lois Morrison, and I hold the position of division manager of Consumer Marketing and

Sales of the Customer Care and Marketing Business Unit. I'm a graduate of the University of Manitoba, faculty of commerce. I have been with Manitoba Hydro for over twenty-two (22) years and, for the majority of that time, working in various roles supporting our Power Smart initiatives.

In 2007, I moved into the role of division manager of Business Support Services with responsibilities including billing, metering, and collections, returning to Consumer Marketing and Sales in 2010.

I've also been involved in several proceedings related to Manitoba Hydro's electric rate applications, and this is also my first time as a witness.

MS. PATTI RAMAGE: Ms. Morrison, what is Manitoba Hydro's view of the forecast growth for the province?

MS. LOIS MORRISON: Manitoba Hydro's load forecast reflects the best projection of Manitoba's future electricity requirements. Manitoba Hydro's load, net of projected Power Smart programs, is projected to grow at an average of 1.4 percent annually and is in line with the overall average annual growth of one point seven (1.7) experienced over the last ten

(10) years, even with the recent economic downturn.

MS. PATTI RAMAGE: Ms. Morrison, with respect to the fuel switching report, what recommendations arise from that report which could impact rate changes -- or the rate changes Manitoba Hydro is proposing in its current Application?

MS. LOIS MORRISON: The fuel switching report is an informational document that was prepared in response to the PUB directive I spoke of -- or sorry, that Ms. Ramage referred to.

The an -- the analysis examines the life cycle impacts of fuel switching from natural gas to electric or geothermal space and water heating, and does not speak to short-term impacts.

Manitoba Hydro recognizes that there are benefits when customers use natural gas for space and water heating purposes from both the customer and Utility perspective, and from global environmental perspectives.

Manitoba Hydro believes that if customers are well informed they will make the best choices for their situations, and in most chases -- most cases will chose natural gas when available.

To aid customers in making informed decisions, Manitoba Hydro has initiated a heating

education campaign to enhance customers' awareness of factors relevant to their decisions in space and water heating. The campaign includes a multifaceted approach targeting homeowners, HVAC suppliers and installers, home builders, commercial builders, and property developers.

Manitoba Hydro will continue monitoring market trends in fuel choices, and will assess the impact of its educational efforts on an ongoing basis. The Corporation's educational efforts will be adjusted accordingly and further consideration may be given to using additional intervention tools such as service extension policies, rate design, and incentive programs.

MS. PATTI RAMAGE: Thank you, Ms. Morrison. With that, that concludes Manitoba Hydro's direct. So if the panel has additional questions for the witnesses, or I -- otherwise I can turn it over to Mr. Peters.

MR. RAYMOND LAFOND: I just need some clarification as to what I just heard. Did I actually hear that using natural gas was better for the environment than electricity?

MS. LOIS MORRISON: It depends on which perspective you take. If you look at it from a local

perspective as in within the -- within the -- the borders of Manitoba there is a net GHG increase by using a natural gas furnace or a natural gas water tank.

However, if someone is choosing between electric furnace or an electric -- or an electric water tank, or a natural gas furnace and natural gas water tank, that means that's electricity being consumed in the province not available for export which is offsetting GHG production in -- in our trading area. Now the offset is greater than the local GHG reduction that we would have realized in Manitoba.

MR. RAYMOND LAFOND: Thank you.

(BRIEF PAUSE)

THE CHAIRPERSON: I have a question in relation to disconnections. Are you -- are you the person to address that to? I think you're --

MS. LOIS MORRISON: I could be.

THE CHAIRPERSON: I guess the question I have is -- is in relation to what's been the experience of Manitoba Hydro given the current con -- context -- I mean we -- we do deal with complaints at our level. And I guess I'm wondering in terms of the

experience you've had with users whether or not they've -- we have more users that are delinquent than -- than the past?

MS. LOIS MORRISON: I believe we have one (1) interrogatory that we resp -- we responded to that talks to the -- the number of accounts in arrears on a monthly basis over, I think, since 2005. I can try and find that quickly for you. But in terms of looking at the month-over-month averages I don't think we're seeing an increase.

MR. RAYMOND LAFOND: If -- I'm really changing the subject so maybe you wanted to continue that line. Essentially, if I look at the current capacity, generating capacity, I read 5,000,485 megawatts -- or 5 -- no, sorry, I'll rephrase this, 5,485 megawatts. And if you add Wuskwatim, Keeyask, and Conawapa it adds up to seventy-eight sixty-five (7,865).

And I read somewheres that the peak use last year was something like four point three (4.3) -- or four thousand three hundred (4,300) and something. Can you give me some explanation as to why this surplus is required, number 1.

My second question will be in terms of peak use by consumers, what would be -- like how many

days, for instance, do you exceed thirty five hundred (3,500) versus four thousand (4,000), to have an idea of what the peak days are and how many there are?

And if that's the case, indicate to us what you could do if we lacked the -- the amount required through interruptible services and such other matters or -- or using the gas turbines, though they're not efficient, but, you know, for a day or two (2) or this type of thing.

MR. DAVID CORMIE: Mr. Lafond, last night at -- between five and six o'clock Manitobans were using -- it -- it averaged around 4,400 megawatts was the demand in Manitoba. The temperature, I think at the time was 20 degrees -- minus 20 degrees.

And let's say that that was the peak for the year, forty-four hundred (4,400), which is very close to the number that you had mentioned. That peak demand is growing at about eighty (80) a year. And between now and when we need new resources for capacity, I believe that's around 2022 -- '23 -- '24. So twelve (12) years at 80 megawatts is 960 megawatts. So you add 960 megawatts to the forty-four hundred (4,400), you know, we'll have a peak load around 6,000 megawatts in -- in the year that -- that we -- that'll be the load.

In addition to that Manitoba Hydro requires reserves, capacity reserves above the load of 10 per -- of equal then to 10 percent of the load. So if you had 10 percent on top of the -- the six thousand (6,000), that would bring you up to 6,600 megawatts of required capacity.

Now, given that we are -- we will be -- we are proposing to build Conawapa before it's necessary there's -- there's going to be that surplus above that that can be sold on the export market, because those export contracts go year-round.

The number of days that -- that we're above thirty-five hundred (3,500) is -- it's quite significant. The summer peak is around three thousand four hundred (3,400), three thousand five hundred (3,500) now with the air-conditioning load. But we can -- we can tell you how many days. We'll get you that information. You can take that as an undertaking.

With regard to what we can do if we do not have capacity, for example, the Jenpeg fire, all of a sudden it took out 130 megawatts of capacity. All our -- all our export contracts are curtailable. That means we have the right to cease delivery if we are in the position in Manitoba where we have insufficient resources to serve the Manitoba load.

So at -- at this moment we have our sale obligations to Northern States Power under the 500-megawatt sale. If we got to the point where continued delivery of the power under that contract resulted in a shortage in Manitoba, we have -- we have curtailment rights and we can -- we can reduce the deliveries at no -- at no penalty if Manitoba Hydro continued to serve Manitoba load.

So one (1) of the values, or one (1) of the benefits of having these export contracts and building for export -- because ultimately the capacity that we've pro -- provided for those contracts is ultimately available to serve the domestic load in -- in emergencies.

Now, we don't -- we don't plan our system around that right, but if that situation were to arrive, for example, the loss of the DC system and we were desperately short in -- in Manitoba for power, our force majeure provisions and our curtailment rights under the contracts allow us to use power that would normally go to them to serve our -- our loads first.

So those -- those are what -- those are the -- the -- those are the options that we have. We also have the option of serving our export sales from -- by buying the power in the market rather than using

our own generators. And I mentioned earlier today how expensive it was to run our combustion turbines.

And so last night at the time of -- of peak deliveries, because of outages in the system, we were delivering from Manitoba no megawatts to Northern States Power under our contract with them. We were purchasing all the megawatts we needed to serve the contract from the market rather than having to start our combustion turbines in order to serve the sale, because purchasing the power was less expensive than -- than running our expensive generation.

So all these contracts that we have allow us to, in effect, financially settle. Although we could serve the sale with our combustion turbines, it was probably twice as expensive to run the gas turbines at Brandon or to turn Selkirk on than it would be to -- just to go to the market and buy power from -- from the market to serve the sale.

So those are the cons -- those are some of the options that we have when we run into situations. We can financially settle. And in the worst case, when it's not a matter of -- of having -- it's not a money issue, it's a supply issue, we have rights to curtail. And in acts of God, force majeure events, we have -- we can declare force majeure and

cease delivery. And we can do all those things without penalty.

MR. RAYMOND LAFOND: That brings a few sub-questions to the comments.

MR. DAVID CORMIE: Yes. We will provide an analysis of the number of days they are -- where the peak load is above 3,500 megawatts.

--- UNDERTAKING NO. 4: Manitoba Hydro to provide an analysis of the number of days where the peak load is above 3,500 megawatts

MR. RAYMOND LAFOND: Could you expand on the issue of capacity reserves of 10 percent for my understanding of why this is needed and -- et cetera?

MR. DAVID CORMIE: Yes. In -- I -- I misspoke earlier. Mr. Lafond, it's 12 percent, not 10 percent.

Planning reserves are to cover off issues such as outages, either forced outages in a sudden emergency event, or maintenance outages where we plan to take a unit out of service, variation in -- in load due to weather. So the -- so the load forecast that's in the documents you have is -- is the expected

peak. Under extreme conditions it could be higher than that or could be lower than that. And so we have this additional -- we provide additional capacity equivalent to 12 percent of the load to cover off those -- those possibilities.

And in addition to that, we need to provide operating reserves to provide for moment-by-moment fluctuations and -- and that -- and those planning reserves make a -- make possible the -- the operating reserves that are necessary to operate the power system.

MR. RAYMOND LAFOND: Let's look at the instance of last night, which you hinted at. We were at 4,400 megawatts at the peak time. The current production is -- or capacity is fifty-six eighty-five (5,685). I understand that there is a hundred and thirty (130) out of service right now due to the fire. So that's still about fifty-five hundred (5,500). And we're using forty-four hundred (4,400). Like, what happens with that difference, and -- and you said there was no -- nothing spared to be able to export.

MR. DAVID CORMIE: Well, firstly, we chose not to run the combustion turbines because we could buy replacement power. So the 105 megawatts -- or the -- the 260 megawatts at the combustion turbines,

it wasn't economical to run. The 130 megawatts at Selkirk wasn't economical to run. The 105 megawatts at Brandon, it's -- it wasn't an emergency, so all the thermal capacity wasn't being run yesterday. So you have to dis -- take that amount off.

In addition to that, we have thirteen (13) generating units in the system that are out of service right now, nine (9) of which I spoke about at -- not being available at Pointe du Bois. There are other units in the system that are out of service right now for overhaul. And -- and then there's the -- the five (5) -- and additional to that there's five (5) units at Jenpeg that are out of service.

And so all that -- all those factors reduce the amount of-- of capacity that's available. And then -- and then the control centre maintains operating reserves to deal with contingencies. And so the actual amount of generation, which is the hydro generation that is available for commercial service, would be around 4,500 megawatts. The power system could operate higher -- more than that but we're holding back some reserves for moment-by-moment variations.

The 4,400 megawatts was the average for the hour. At the time of the instantaneous peak it --

it would be 100 or 150 megawatts higher than that. So -- but in the -- in the load forecast we're -- we've planned for the average hourly load as the -- as the peak. We're not planning for the instantaneous peak.

And so the operating reserves allow us to meet that instantaneous peak without creating a burden on the -- on the rest of North America by having to import power that we weren't planning to supply.

MR. RAYMOND LAFOND: In terms of overhauls I certainly understand the unforseen fire that's put, whatever, nine (9) turbines out of service. How about the other overalls? They're being done in winter rather than, you know, off-peak season. And is that because these are overhauls that take more than eight (8), nine (9) months?

MR. DAVID CORMIE: Yes. And we -- we do not have enough resources to bring all our -- to get all our generate -- generators back into service as quickly as we would like. We are limited by capital availability. And we're having to schedule the return to service of some of these units out over time because we -- we just don't have the resources to get them into service as soon as possible.

MR. RAYMOND LAFOND: I guess my -- my last question, Mr. Chairman, you referred to the issue

of curtailment, possibilities of cur -- curtailment without any penalties. What would be the amount in that regard? Like what's the maximum possible in terms of curtailment like on a night like last night without any penalty?

MR. DAVID CORMIE: In an emergency, there is no limit to how much we can cur -- 100 percent is curtailable. In a non-emerg -- in a non-emergency situation we have the obligation to supply it. We supply it by purchasing the required amount of power from the market. It's not coming from the Manitoba system, but Manitoba Hydro is financially responsible for supplying it.

So the -- the power is still delivered, it's just not coming off the Manitoba Hydro system. So we didn't have to run our combustion turbines last night but we were still responsible for purchasing enough power to serve -- to serve the export sale.

And -- and for example those -- those -- the -- the contract with Northern States Power, it's in the fifty-five dollar ($55) range. We might have bought, to serve it at, you know, twenty-five (25) or thirty dollars ($30). So its still economical to serve.

We don't have the right to curtail for

economic reasons. So if the power prices last night had spiked it would still have been --

MR. RAYMOND LAFOND: Yeah.

MR. DAVID CORMIE: -- let's -- let's say they had gone to seventy dollars ($70), it would still have been cheaper to -- to purchase the seventy dollar ($70) power than to spend a hundred and fifty dollars ($150) to run the combustion turbine.

MR. RAYMOND LAFOND: Okay.

MR. DAVID CORMIE: So it's -- it's a matter of finding the least cost way of serving the obligation.

MR. RAYMOND LAFOND: Sorry. The curtailment you were referring to was in regards to exports, correct?

MR. DAVID CORMIE: Yes.

MR. RAYMOND LAFOND: I was -- my -- my question was really in terms of interruptible service for like major industrial users who get a special price but they can be cut off without penalty on certain circumstances. That's what I was getting at.

MR. DAVID CORMIE: I understand. We have a cur -- curtailable load program that allows Manitoba Hydro to ask customers to reduce their -- their use of power. And it's -- there's a set of terms

and conditions. So many interruptions a year for so long. And Manitoba Hydro pays a discount to the customer to have that right.

And it's -- it's used to re-establish reserves. It's used to deal with emergencies. It's -- it's not used to help us with our economic dispatch. And -- but the customer gets paid that whether we use the -- we use all the curtailments that are available in the program.

Several years ago as we were still kind of defining the terms and conditions we went through a period of time where we were exercising them for economics. Rather than starting the combustion turbine we would curtail. The customer found that we were curtailing too often even though that we had the right. And so we adjusted the program so that it -- it gets used on a much less often basis.

And so we found a nice balance point between still being valuable to the utility, but not disrupting the production processes at the -- at the large industrial customers. And there are very few customers who have the ability to have their production processes interrupted without causing a significant problem for them.

MR. RAYMOND LAFOND: I understand this.

And -- however, in terms of reasons -- for economic reasons. But if there was an ice storm, for instance, and we were down for seven (7) days and that's an emergency, something, what is the total amount you could actually cut off without any penalty to these, I guess, industrial users?

MR. DAVID CORMIE: You know, I think Manitoba Hydro reserves the right in emergencies to curtail everyone. I think, ultimately, that's -- you know, whether we chose to or Mother Nature does it by taking the wires down, but I'm -- I'm not whether our contractual obligation -- is it to customers who aren't on the curtailable load program.

Lois, do you have an idea whether we have curtailment rights beyond the curtailable rate program?

MS. LOIS MORRISON: Not any outside of what's been identified by yourself.

MR. RAYMOND LAFOND: But I still do not hear a number --

MR. DAVID CORMIE: I don't think -- I don't think -- we haven't negotiated a contractual right that's beyond the curtailable load program.

MR. RAYMOND LAFOND: Thank you.

MR. DAVID CORMIE: If -- if, for

example, we were having the interruption to the -- to the DC system where it caused Manitoba Hydro to do rotating blackouts or load shedding around the province, we would just go into a certain area of the prov -- of the city or the province and we would shut that area down, and we would rotate that outage across all areas of the province. And it would be -- you know, maybe that's a substation, we would -- we would shut that substation down. Everybody would be affected and on a -- you know, on a non-discriminatory basis. And it would -- it would -- I think in -- in choosing the load-shed scheme they've selected the ones that have the least impact to be done first, but -- but that would be under an extreme emergency.

Under the curtailable rates program, the maximum duration per interruption is four (4) hours. But we can have back-to-back curtailments, but that uses up the -- the numbers that are allowed under -- on an annual basis.

THE CHAIRPERSON: I have a question in relation to the fuel switching report. I guess one (1) -- one (1) of the things I'm struggling with is the -- the following. You know, I think all of us respond to price signals, whether it's a consumer or it's the Corporation, and, I guess, I'm -- I'm Manitoba Hydro,

I'm looking at the export markets where prices are really low and I can earn seven (7) or eight (8) cents a kilowatt hour from a Manitoba consumer. Why would I encourage the Manitoba consumer to switch to gas? Like -- you know, I'm -- what -- I guess it's a rhetorical question, but I -- not so much.

I mean, I'm -- I'm sort of wondering does it -- you know, that sort of calculation go into the level in enthusiasm in -- in supporting consumers in switching to an alternative fuel source? I think it's a question for Mr. Warden.

MR. VINCE WARDEN: We're -- with the fuel switching, we're, of course, motivated by what's best for the customer ultimately. And if it's in the customer's interest to -- to use natural gas for heating purposes rather than electricity then we would encourage that, or at least provide the information such that the customer can make that choice.

So our motivation is not so much to increase our bottom line; it's more so to -- to provide the source of fuel that's -- that's in the best interests of that customer over the long-term.

THE CHAIRPERSON: I guess the -- the -- what I'm concern about is the uptake on some of the demand-side management programs that are -- that are --

that we've seen. I mean, the uptake is not quite what most of us expected. We expected that the people would be uptaking the programs and taking full advantage of -- - of what those are offering -- dealing with what's being offered. And I'm concerned that, you know, that the price signal that Manitoba Hydro is getting from the marketplace at -- you know, it's partly attributable to -- it's one (1) of the reasons why we're not getting the level of -- of uptake that we -- we would have expected from the dem -- demand-side management.

You know, I guess what I'm saying is that there's not much in it for Manitoba Hydro from -- from the standpoint of revenue, because you're making most of your revenue from the electricity side, you know, on a relative basis. So I guess I'm -- I'm wondering, is that one (1) of the reasons why -- potentially one (1) of the reasons why we're not getting the uptake?

MR. VINCE WARDEN: I think the -- the uptake and -- and Ms. Morrison can speak to this certainly, but the uptake would be improved with the appropriate price signals, and that's why previous applications before this Board have been with inverted rates. So we -- we'd like to see the more you use

electricity the more you're -- you're going to pay for that.

So in -- in our -- in our application, and I think we're going to be talking about this in a subsequent proceeding, is just that: to put more emphasis on the tail-block rate such that we can send that appropriate price signal to customers.

There is the issue, of course, in Manitoba with electric heat. And that has -- that has been the -- the reason that inverted rates have not really gone where we would like them to go. And there has to be a solu -- a solution for that and we -- we have been working towards that, which will be part of a future application such that we could have seasonal-type rates, for example, that would -- inverted rates for the part of the year that isn't -- isn't going to affect electric heat customers.

As far as the uptake though on the programs, I think that for the most part, with the incentives that have been provided, has been reasonably good, but Ms. Morrison might -- might want to speak a little bit more to that.

MS. LOIS MORRISON: I'll be much prepared at the second panel. However, we have had quite a bit of uptake in our programs. We've offered -

- we've been in the market since 1989, and over that time we have had a large portfolio, a variety of programs, and I've seen a number of customers participate and have already realized significant bill savings.

You are correct in -- in some of the discussions we've had to date about the low cost of energy from an electricity perspective may not be the driver for customers to -- or encourage them as much to participate. However, we have to remember that, particularly in the residential market, customers don't look beyond the borders. They -- they look at their electricity bill and they think, Oh, what can I do to impact that? And so we are seeing customers participate.

We've just come off a period where the federal government was running a program and we were running supporting programs along with that, and we saw significant uptake in terms of customers insulating their homes, in -- installing water and energy saver devices. So we are seeing a lot of activity in the market and have seen that activity in a consistent basis over the years.

THE CHAIRPERSON: You know, we -- looking at the messaging, if, for example, we -- this

panel makes a decision around the rates going forward, we'd like to be able to say to -- to Manitobans, you know, Sure, you're going to be facing significant rates, you know, 20, 30, 40 percent rate increases, but we think that you can save 30 percent of that by undertaking demand-side steps.

In other words, you can take steps to actively reduce your power consumption. It's -- it's quite feasible for you to reduce most of the edge -- take the edge off that -- those increases you can be facing. And I -- I guess you're in charge of the program; is there the potential -- is there the potent -- potential out there to be able to say that to Manitobans?

MS. LOIS MORRISON: Well, there's a -- there -- there -- right now we are -- it -- it comes back to the point that we've had a lot of participation to date. So a lot of the customers that we are talking to that will be facing a rate increase have already received the benefit of the -- the improved energy efficiencies in their homes already. And in -- and a number of our commercial customers, industrial customers also have already realized a lot of the savings, and will continue to realize that benefit as we go forward.

Secondly, in terms of looking to the future, we are undertaking a market potential study. And we will be looking to -- to that to see what additional potential may be existing in the market. We continue to monitor the market to see whether opportunities, economic opportunities, might still be out there for customers to undertake.

But when you're -- when you're looking at -- speaking to the residential market; when you're looking at the residential customer there are only so many things that you can do within the home to reduce energy. And when you're looking at the -- the largest portion of their bill being their heating or water heating bill, then you're looking at improving insulation, improving -- reducing the amount of hot water consumed, and -- and we have initiatives in place right now to support that.

And as I mentioned, we just finished up with the federal ecoENERGY program which had significant incentives tied in. So customers were able to participate in incentives to in -- upgrade the insulation or improve the energy efficiency of their homes, they got incentives from the federal government, they got incentives from us, and they were allowed to finance any shortfalls through our Power Smart

residential loan.

So we had a lot of financial tools and communications out in the market to help customers participate, and -- and to move them forward towards a more energy efficient household. And from the commercial side we have a very broad portfolio of offerings for a commercial sector that -- that look to heating systems like the HVAC, lighting, insulation envelop.

So -- so we are really still pushing forward. We're -- we -- we are committed to pursing the economic opportunities.

MR. RAYMOND LAFOND: I -- I'd like to add on this specific subject and if we're going to cover it at length later on, please let me know.

I heard the -- the examples you gave; however, I have the impression, or the perception, that there has not been as much, I guess, publicity to make people aware of the possible savings like there has been, for instance, with recycling. There's a lot of aware -- of awareness about recycling, but I'm not so -- I'm not -- I don't think it's the same -- at all the same level in terms of reduction of -- of use of an energy like electricity.

For instance, do you do pollings to

determine whether or not people actually consider, or -- or actually do reduce their thermostat by 2 degrees at night, and -- and do you know if people are really aware if they kept their house at like 1 degree lower all day and 2 degrees lower at night how much they would save? Like, that type of information, for people to act.

MS. LOIS MORRISON: We've been doing comer -- customer surveys for a number of years looking at a number of different measures. Some of them, behaviour-based activities such as you mentioned. Others, more awareness of the concepts of energy efficiency. So we do things like we want to know brand awareness of Power Smart, because if people are aware of Power Smart then it's more top of mind; they're more likely to undertake it.

We also did surveying. Some of the measures that we -- metrics we looked at was people's understanding that Manitoba Hydro has programs to -- to help them improve the energy efficiency of their home.

So -- so we do track over time customers' under -- awareness and understanding of what Manitoba Hydro is -- is trying to communicate in the marketplace. We also do surveys on a -- on an end-use basis to find out what type of behaviours customers

undertake.

MR. RAYMOND LAFOND: Thank you. However, I have to -- and that could be my fault -- I am not aware at all how much I could save by lowering my thermostat by 1 degree during the winter and maybe putting on a sweater, or by 2 degrees in the evening, and I'm not sure this is prevalent amongst -- amongst Manitobans.

MS. LOIS MORRISON: I would -- most of our communication, our advertising, has been around, more recently, the Small Changes Adds Up campaigning, which doesn't specifically say you can save 'X' amount of money if you do this. We did have a campaign prior to this where we did actually have that messaging on the ads, but, as I mentioned, we've been in the market for quite a few years and we do -- do change up the messaging on our advertising to try and keep it fresh, and to keep people engaged.

The advertising, as I mentioned, the Small Changes Adds Up campaigns talk about -- more so talk to what you can do as an individual to improve your energy efficiency. But you're right, it does not say specifically, you will save two dollars ($2) a month during the winter months if you reduce your thermostat by a degree, so.

MR. RAYMOND LAFOND: Thank you.

THE CHAIRPERSON: I'm looking at the time. Mr. Peters, do you think that you would like to start, or would you prefer that we hold off until tomorrow morning?

MR. BOB PETERS: No time like the present, my dad always said, so let's --

THE CHAIRPERSON: Okay. Okay.

MR. BOB PETERS: Let's use the time, because I -- I have a feeling we'll be needing it. And it's not subject to a vote, I don't think, but -- but I can be overruled, Mr. Chairman. But I am prepared to proceed.

All right. I will proceed.

CROSS-EXAMINATION BY MR. BOB PETERS:

MR. BOB PETERS: And, Mr. Warden, did you tell your colleagues -- and I know Mr. Rainkie was lurking in the back row yesterday -- that any questions that I have are not designed to elicit information that the Corporation considers confidential, and so that -- if you believe that your answer has to contain confidential information, please don't disclose it. You can alert the Board that there is a concern, and it can be worked out with Ms. Ramage. In one (1) way or

another we can deal with it.

And, likewise, my questions that may relate to matters beyond the two (2) test years are not asked in the context of a 'needs for an alternatives to' process, but rather to provide the Board with a context in which this application is occurring.

And, lastly, Mr. Warden, my questions are seeking the best answer information for the Board, and so I'll let the panel of witnesses decide who that's -- who's able best to provide them.

Would that be okay to proceed on those basis, sir?

MR. VINCE WARDEN: Yes. Thank you, Mr. Peters.

MR. BOB PETERS: All right. In the time we do have, let's turn to Tab 1 of the book of document that I circulated, which is PUB Exhibit 14, and just remind the Board what Manitoba Hydro is asking for with specifics. And, Mr. Warden, you did deal with this also on page 26 of your Manitoba Hydro Exhibit 15.

And let's start with the -- Mr. Chairman, I should note that the pages in this book of documents are numbered sequentially, and so a page number will identify what -- what document we're on.

The tabs also divide it by topics to some extent, and that was the methodology behind it. So I hope the parties can follow.

Mr. Warden, I'll start with you. In the application letter that was filed, letter number 'C' was a request to maintain in base rates, rates approved in orders 30-10 and 40-11. To cut through that, that's the 1 percent rollback that we're talking about, isn't it?

MR. VINCE WARDEN: Correct.

MR. BOB PETERS: And when Manitoba Hydro wants to keep the 1 percent in base rates, what you're saying is you do not want -- sorry, you -- you acknowledge that that 1 percent is already in the build rate to consumers, correct?

MR. VINCE WARDEN: That's right.

MR. BOB PETERS: But it's not in what Manitoba Hydro considers its base rates; meaning it's fully approved and finalized rates, by this Board?

MR. VINCE WARDEN: No, that was intended to be build rates, Mr. Peters.

MR. BOB PETERS: Understood. But you want to -- you want to convert it over from build rates over to base rates if...

MR. VINCE WARDEN: To approved rates,

yes.

MR. BOB PETERS: All right. And those approved rates, the Board can consider those as the build rates; would I have that correct?

MR. VINCE WARDEN: With respect to the 1 percent, yes.

MR. BOB PETERS: All right. And you also indicate in there that the revenues that have been accumulating in a deferral account, you'd like those monies to be converted over to Manitoba Hydro's revenues, correct?

MR. VINCE WARDEN: Yes. And to be clear, the amount is $23 million at the end of fiscal 2012. So at March 31st, 2012, 23 million plus an additional 12 million for the current fiscal year, '12/'13. So a total of 35 million in 2012/'13, and a further 12 million in the next test year, 2013/'14.

MR. BOB PETERS: All right. And we'll -- we'll touch base on that in a few minutes, Mr. Warden.

(BRIEF PAUSE)

MR. BOB PETERS: This 1 percent rollback, sir, originates as a result of this Board's

final order, 5 of '12, stemming from that last general rate application?

(BRIEF PAUSE)

MR. VINCE WARDEN: Yes.

MR. BOB PETERS: And this is -- the -- the request didn't use the numbers, but the rate was rolled back 1 percent as a result of that final order--

MR. VINCE WARDEN: Yes.

MR. BOB PETERS: -- 5/'12, yes? Who does Manitoba Hydro consider that revenue sitting in the deferral account belongs to?

MR. VINCE WARDEN: Well, until further order of this Board it belongs to the general consumers of Manitoba Hydro.

MR. BOB PETERS: Do you consider it as an over-collection then in what had been approved as your base rates?

MR. VINCE WARDEN: No, I wouldn't say it's an over -- I wouldn't characterize it as an over-collection. It was a collection based on interim approval that was -- was provide to Manitoba Hydro, so we -- we collected that from customers on the basis of interim approval which was sub -- subsequently rolled

back.

MR. BOB PETERS: Thank you, Mr. Warden. And then the financial statements for Manitoba Hydro for fiscal '12, those statements were adjusted by $23 million to reflect the 1 percent "rollback", as you called it, in the two (2) prior years?

MR. VINCE WARDEN: Yes, the 23 million was not included in the determination of net income for the fiscal year 2011/'12.

MR. BOB PETERS: And you said going forward that if this amount is embedded in the base rates it will generate an additional $12 million a year on a go-forward basis?

MR. VINCE WARDEN: Yes.

MR. BOB PETERS: And I suppose any other future rate increases would be compounded on top of this?

MR. VINCE WARDEN: Yes, the -- the financial forecast that is before this Board, the IFF12, assumes that the 1 percent will remain in -- in what we've called "base rates."

MR. BOB PETERS: All right. And I'll probably lose this, so I'll ask it now Mr. Warden. Manitoba Hydro has already assumed that the $35 million approximately of additional revenues is in the general

consumers revenue line item on the IFF12?

MR. VINCE WARDEN: Yes.

MR. BOB PETERS: The next item on your application, lettered 'D', is to deal with approval of a 2 percent interim rate increase effective April 1 of 2012 through Order 32/12.

Have I got that right?

MR. VINCE WARDEN: Yes.

MR. BOB PETERS: And on an annual basis I think you've indicated that's approximately $25.8 million?

MR. VINCE WARDEN: Yes, I think I indicated it was 25 -- excuse me -- million -- $25 million in 2012/'13, and 26 million in 2013/'14. Those are rounded numbers however.

MR. BOB PETERS: Thank you. And again, in Order 32/12 the -- the Board did not finalize that 2 percent rate. That's an interim rate, correct?

MR. VINCE WARDEN: Correct.

MR. BOB PETERS: And likewise, in that same order this -- the Board did not finalize the 1 percent rte increase rollback request that you sought reversal of?

MR. VINCE WARDEN: Correct.

MR. BOB PETERS: And in turning to

letter 'I' of the application in the book of documents on page 1. The 2.5 percent, September 1, 2012, interim rate increase was through Order 1/12, approved by this panel on an interim basis only?

MR. VINCE WARDEN: Yes.

MR. BOB PETERS: And that generated -- it was to generate approximately $20 million of interim revenues from September 1 through to March 31 of '13?

MR. VINCE WARDEN: That's correct.

MR. BOB PETERS: That's a seven (7) month indication, sir?

MR. VINCE WARDEN: Yes.

MR. BOB PETERS: In an -- that 2.5 percent -- sorry, that 2.5 percent interim rate increase of September 1 of '12 on an annualized basis would result in approximately $33 million, Mr. Warden?

MR. VINCE WARDEN: That's right.

MR. BOB PETERS: Is it tracking as forecast, sir? Do you have any idea or any knowledge of that? Are you on track to get that amount of revenue from that rate increase, I guess is my proper request, sorry.

MR. VINCE WARDEN: I -- would say, yes. It -- you know, it's -- it's affected from month to month by weather conditions, but in -- and we only have

results for September, October, so far. But generally I would say, yes. Yes, we're -- we're on -- we're on track.

MR. BOB PETERS: And, Mr. Warden, there was an issue that arose with the finalization of the actual rates to be charged, and in my words it stemmed over an understanding of whether it was a 2 1/2 percent rate increase or a 2 1/2 percent additional revenue recovery.

Do you recall that issue?

(BRIEF PAUSE)

MR. VINCE WARDEN: Yeah, there was some question, Mr. Peters, as to whether or not the 2.5 percent would apply across the board totally to all components of the bill, including the basic monthly charge. There was clarification with this Board later that -- or, subsequent that the -- it was not intended for the basic monthly charge to increase, so therefore it wasn't -- it -- holding the -- the basic monthly charge constant at six dollars and eighty-five cents ($6.85) per month resulted in a slightly lower than 2.5 percent rate increase overall.

MR. BOB PETERS: And if I recall, Mr.

Warden, it resulted in a seven hundred and fifty thousand dollar ($750,000) a year revenue shortfall from what would have been expected by the Corporation on an average revenue basis, compared to a 2.5 percent rate increase?

MR. VINCE WARDEN: Yes.

MR. BOB PETERS: All right. Is that additional seven hundred and fifty thousand dollars ($750,000) sought to be made up anywhere in this Application?

MR. VINCE WARDEN: No.

MR. BOB PETERS: Mr. Warden, I'm going to ask a hypothetical question just to let Ms. Ramage maybe see if she can stop me here. The -- the -- Manitoba Hydro actually asked for a 3 1/2 percent interim rate increase effective April 1st of 2012.

Is that correct?

MR. VINCE WARDEN: Yes.

MR. BOB PETERS: And you were awarded -- - Manitoba Hydro was awarded 2 percent.

MR. VINCE WARDEN: That's right.

MR. BOB PETERS: Had Manitoba Hydro received 3 1/2 percent on April 2 of 2012, would there have been a September 1st interim application?

MR. VINCE WARDEN: I would say mostly

likely not. The annualized amount of 2 percent effective April the 1st, 2 1/2 percent effective September the 1st, is 3.57 percent. So -- so, no, I would say if we had received the three point five (3.5), we would not have sought the additional two and a half (2 1/2).

MR. BOB PETERS: All right. You acknowledge then that the 2 percent on April 1st and the 2 1/2 percent on September 1st was equivalent to three point five-seven (3.57) for the entire fiscal year?

MR. VINCE WARDEN: Yes.

MR. BOB PETERS: And if we look forward to the next fiscal year, Mr. Warden, that 2 percent on April 1st and the 2 1/2 percent on September 1st, that's going to look like 4 1/2 percent starting April 1 of 2013, isn't it?

MR. VINCE WARDEN: In the base to which further increases would be applied, yes.

MR. BOB PETERS: Well, I'm not sure what that answer means, Mr. Warden. But effectively, starting April 1st of 2013, whatever happened this year amounts to 4 1/2 percent?

MR. VINCE WARDEN: In total, yes, I think we're agreeing.

MR. BOB PETERS: Okay.

(BRIEF PAUSE)

MR. BOB PETERS: Mr. Warden, we're fighting over your Exhibit 15. But this morning when you compared and you spoke to Board member Lafond about rates in different jurisdictions, I think also the Chair, you had a compilation where Manitoba Hydro was indexed at a hundred (100), and then I think the province or Quebec was perhaps 110 percent of Manitoba. Do you recall that?

MR. VINCE WARDEN: Yes, I do.

MR. BOB PETERS: And while I can't put my finger on the page number, did you reflect an increase going forward on page 36. When -- when I look at your page 36 of Exhibit 15 you show under the 2012 column Manitoba Hydro a 3.6 percent interim increase, correct?

MR. VINCE WARDEN: Yes.

MR. BOB PETERS: How does that get translated into 4 1/2 percent going forward, or does it?

(BRIEF PAUSE)

MR. VINCE WARDEN: It must be late in the day, Mr. Peters; I'm going to have to dwell on that. The -- the average rate increase for the -- on page 36 that I referenced was the 3.57 or the 3.6 percent was the average rate increase in that year.

We are requesting a further 3.5 percent rate increase in '12/'13 over and above the three point five-seven (3.57) that was -- that we're re -- requesting to be finalized in 2011/'12.

(BRIEF PAUSE)

MR. VINCE WARDEN: Now, how does that compare to the four (4) point -- I -- I'll have to give that a little bit more thought and maybe I'll come back, if you don't mind, in the morning with a better answer than I'm -- it -- it is, you know, there's no -- no denying that two (2) plus two and a half (2 1/2) is four and a half (4 1/2), that -- that finds its way into customer's bills, to which we're applying another three point five (3.5). So the cumulative rate increase would be perhaps higher than what's indicated here.

MR. BOB PETERS: Is the top line on page 36 of Manitoba Hydro Exhibit 15 an attempt to show

annualized rate increases?

MR. VINCE WARDEN: Well, it is, but the cumulative increase is -- is also to show the, you know, the impacts of -- of compounding those rate increases over -- over time.

MR. BOB PETERS: Maybe I can leave you to do that overnight, although I don't want you to lose much sleep over it. Manitoba Hydro has under the 2010 column taken in the 2.8 percent rate increase, which in essence has reinstated that 1 percent rollback that we've talked about earlier?

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

MR. BOB PETERS: Mr. Warden, and Mr. Chairman, recognizing the time I'd be prepared to stand down at this time if you wish.

THE CHAIRPERSON: I was hoping that we would wring more service out of the two (2) fellow Board members who are -- but I think we can -- we can -- it's probably appropriate to adjourn right now. Is there any service to attend to before we adjourn? I'm sorry --

MR. RAYMOND LAFOND: I have --

THE CHAIRPERSON: -- you do have a question?

MR. RAYMOND LAFOND: -- I have -- yes,

thank you. This is in line with the -- and that's why I'm asking it now, in -- in line to the rate increases. What -- what Manitoba Hydro is applying for is 3.5 percent for the current year and the following year -- or next year and the following year. And -- however, it's looking at a 3.95 or 4 percent increase for the following eighteen (18) years.

Why three point five (3.5) for the next two (2) years and 4 percent for the following eighteen (18) years, rather than 4 percent across the board? I mean, there must be a reason for this.

MR. VINCE WARDEN: Yes, there is a reason, Mr. Lafond, we had applied for the 3.5 percent. In -- in our -- in our previous financial forecast, IFF11, the rate increases were 3.5 percent per year.

So we had already applied for the rate increase of three point five (3.5) on the basis of that forecast. The fore -- IFF12 was prepared targeting what -- what kind -- what magnitude of rate increase is required to get back to our 75:25 debt-equity ratio. And that worked out arithmetically to 3.95 percent per year.

MR. RAYMOND LAFOND: Thank you.

(PANEL RETIRES)

THE CHAIRPERSON: Are there -- sorry, anything we need to do before we adjourn?

MR. BOB PETERS: I have no matters to be attended, and I don't see counsel across the room indicating either, Mr. Chairman, so I think until 9:00 tomorrow we'll be fine.

THE CHAIRPERSON: Okay. So let's adjourn now, then, and we'll see each other again tomorrow morning at 9:00. Good night.

--- Upon adjourning at 4:32 p.m.

Certified correct,

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Cheryl Lavigne, Ms.